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INDUSTRIAL RELATIONS IN THE WEST GERMAN
AND BRITISH CHEMICAL INDUSTRIES

DAVID RAYMOND EBSWORTH

A thesis submitted for the degree of
Doctor of Philosophy

Department of Linguistic
and International Studies,
University of Surrey.

October 1980
Summary

Labour relations in the West German and British chemical industries are investigated by means of a comparative empirical research design incorporating surveys of primary and secondary sources, unstructured focused interviews and a questionnaire survey. It was hypothesised that the technology, industrial organisation and economic development of the chemical industry significantly influence the practice of labour relations in the industry. However, other factors including political and legislative developments and management policies were also found to have a considerable influence on chemical industrial relations. Hence, no simple statement of the main factors which affect labour relations in chemicals is possible although the initial hypothesis was confirmed.

The study concentrates upon an investigation of labour relations in the West German chemical industry. Particular emphasis is given to analysis of collective bargaining and workplace industrial relations, the latter based primarily on case study information. In addition, the development and current role of management, trade unions and employers' associations active in chemicals is investigated. Furthermore, the structure of the chemical industry and the importance of co-determination in this industry is reviewed.

In Part Two, this analysis forms the basis for the comparison of labour relations in the West German and British chemical industries. The following conclusions emerge from this comparison:
1. Chemical labour relations are characterised in both countries by effective joint regulatory disputes procedures which contribute to the low incidence of official and unofficial stoppages.

2. Union organisation is generally weak, particularly at the workplace, unless management policies and state intervention provide support for the unions.

3. The state has played a crucial role in the development of chemical labour relations in both countries.

4. Management policies have until recently displayed remarkable similarities.

In conclusion, general hypotheses on chemical labour relations are developed.
Acknowledgements

I should like to thank all the individuals, organisations and companies whose co-operation and support made this study possible. Particular thanks are due to Gunter Roae and Werner Beck of the IG Chemie-Papier-Keramik for organising a large number of interviews for me and to the officials of the Arbeitsring der Arbeitgeberverbände der Deutschen Chemischen Industrie. Other companies and organisations which provided assistance were:

BASF AG
Bayer AG
Deutsche Angestellten Gewerkschaft
Erdölchemie AG
Gewerkschaft Victor Chemie
Hoechst AG
Kronos Titan GmbH
Ruhrchemie AG
Veba Chemie AG

ASTMS
AUEW
BP Chemicals Ltd
Chemical Industries Association
EETPU
Fisons Ltd
GNWU
Shell Chemicals Ltd
TGWU
Tioxide Ltd

Further thanks are also due to the Social Science Research Council and the Federal Trust for Education and Research for their financial support of this study.

The guidance of my supervisors Karl Koch MA and Professor Nigel Reeves provided the encouragement necessary to surmount the problems associated with the research. In addition, thanks are due to my colleagues in the Department of Linguistic and International Studies, especially Peter Burch MA.
Table of Contents

Summary

Volume One

Acknowledgements
Table of Contents
Glossary of Abbreviations
Summary of Interview Codings
Glossary of Standard Translations

Chapter 1  Introduction
(i) Definitions and Terminology  4
(ii) Research methods  9
(iii) Limitations and Errors  28
(iv) Conclusion  32

Part One - Industrial Relations in the West German Chemical Industry

Chapter 2 The development of industrial relations in the German chemical industry
(i) Introduction - Economic background and the development of the chemical industry  35
(ii) Trade unionism  53
(iii) Employers' organisations and management
a. Employers' organisations  79
b. Management  94
(iv) Co-determination and the chemical industry  106
(v) Summary  124

Chapter 3 The West German chemical industry - Technological characteristics, industrial organisation, recent economic development and their relevance for industrial relations
(i) Technological characteristics  128
(ii) Industrial organisation  144
a. Concentration and size of establishment  144
b. Workforce structure  153
c. Major companies and Product diversification  162
d. Location  167
(iii) Economic development 1969-1978
a. Chemical output  173
b. The labour market situation  178
c. Productivity  181
d. Investment  183
e. Earnings  185
(iv) Summary  193
Part Three - Supplementary Information

Appendix 1 Tables 108

Appendix 2 Questionnaires 127

2.1 Structured Questionnaires (Agrochemie AG) 127
2.2 Guidelines for Informal Focused Interviews (Germany) 148
2.3 Guidelines for Informal Focused Interviews (United Kingdom) 163

Appendix 3 Results of Agrochemie AG Investigation held in October 1978 171

Bibliography 205

(i) Works cited 205
(ii) General bibliography 233
### Glossary of Abbreviations

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ABCM</td>
<td>Association of British Chemical Manufacturers.</td>
</tr>
<tr>
<td>ACAE</td>
<td>Association of Chemical and Allied Employers.</td>
</tr>
<tr>
<td>ACAS</td>
<td>Advisory Conciliation and Arbitration Service.</td>
</tr>
<tr>
<td>ADGB</td>
<td>Allgemeiner Deutscher Gewerkshaftsbund.</td>
</tr>
<tr>
<td>AG</td>
<td>Aktiengesellschaft.</td>
</tr>
<tr>
<td>APST</td>
<td>Association of Professional Scientists and Technologists.</td>
</tr>
<tr>
<td>Arbeitsring (Chemie)</td>
<td>Arbeitsring der Arbeitgeberverbände der Deutschen Chemischen Industrie.</td>
</tr>
<tr>
<td>AScW</td>
<td>Association of Scientific Workers.</td>
</tr>
<tr>
<td>ASSET</td>
<td>Association of Supervisory Staffs, Executives and Technicians.</td>
</tr>
<tr>
<td>ASTWS</td>
<td>Association of Scientific, Technical and Managerial Staffs.</td>
</tr>
<tr>
<td>AUEW</td>
<td>Amalgamated Union of Engineering Workers.</td>
</tr>
<tr>
<td>BASF</td>
<td>Badische Anilin- und Sodafabriken.</td>
</tr>
<tr>
<td>BDA</td>
<td>Bundesvereinigung der Deutschen Arbeitgeberverbände.</td>
</tr>
<tr>
<td>EDI</td>
<td>Bundesverband der Deutschen Industrie.</td>
</tr>
<tr>
<td>Bgbl</td>
<td>Bundesgesetzblatt.</td>
</tr>
<tr>
<td>BG Chemie</td>
<td>Berufsgenossenschaft der Chemischen Industrie.</td>
</tr>
<tr>
<td>BI</td>
<td>Bund der Industrie.</td>
</tr>
<tr>
<td>BJIR</td>
<td>British Journal of Industrial Relations.</td>
</tr>
<tr>
<td>c.</td>
<td>Copyright.</td>
</tr>
<tr>
<td>CDU</td>
<td>Christlich-Demokratische Union.</td>
</tr>
<tr>
<td>CEF</td>
<td>Chemical Employers' Federation.</td>
</tr>
<tr>
<td>CGB</td>
<td>Christlicher Gewerkshaftsbund Deutschlands.</td>
</tr>
<tr>
<td>CIA</td>
<td>Chemical Industries Association.</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>CSO</td>
<td>Central Statistics Office.</td>
</tr>
<tr>
<td>CSU</td>
<td>Christlich-Soziale Union.</td>
</tr>
<tr>
<td>CVDI</td>
<td>Centralverband Deutscher Industrieller.</td>
</tr>
<tr>
<td>CWU (UK)</td>
<td>Chemical Workers' Union (UK).</td>
</tr>
<tr>
<td>DAG</td>
<td>Deutsche Angestelltengewerkschaft.</td>
</tr>
<tr>
<td>DEB</td>
<td>Deutscher Beamtenbund.</td>
</tr>
<tr>
<td>DGB</td>
<td>Deutscher Gewerkschaftsbund.</td>
</tr>
<tr>
<td>DKP</td>
<td>Deutsche Kommunistische Partei.</td>
</tr>
<tr>
<td>EC</td>
<td>Executive Committee.</td>
</tr>
<tr>
<td>EETPU</td>
<td>Electrical Electronic Telecommunications and Plumbing Union.</td>
</tr>
<tr>
<td>EIRR</td>
<td>European Industrial Relations Review.</td>
</tr>
<tr>
<td>F</td>
<td>Frequency.</td>
</tr>
<tr>
<td>FAZ</td>
<td>Frankfurter Allgemeine Zeitung.</td>
</tr>
<tr>
<td>FDP</td>
<td>Freie Demokratische Partei.</td>
</tr>
<tr>
<td>GB</td>
<td>Geschäftsbericht.</td>
</tr>
<tr>
<td>GMMWU</td>
<td>General and Municipal Workers' Union.</td>
</tr>
<tr>
<td>Gp</td>
<td>Gewerkschaftspost.</td>
</tr>
<tr>
<td>ICF</td>
<td>International Federation of Chemical and General Workers' Unions.</td>
</tr>
<tr>
<td>IDS</td>
<td>Incomes Data Services.</td>
</tr>
<tr>
<td>IG</td>
<td>Industriegewerkschaft.</td>
</tr>
<tr>
<td>IG Farben</td>
<td>Interessengemeinschaft der Farbenindustrie AG.</td>
</tr>
<tr>
<td>Infobrief</td>
<td>Informationsbrief für Führungskräfte.</td>
</tr>
<tr>
<td>IPM</td>
<td>Institute of Personnel Management.</td>
</tr>
<tr>
<td>JIC</td>
<td>Joint Industrial Council.</td>
</tr>
<tr>
<td>KA</td>
<td>Konzertierte Aktion or Keine Antwort.</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
</tr>
<tr>
<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>MBG</td>
<td>Montanmitbestimmungsgesetz 1951.</td>
</tr>
<tr>
<td>N</td>
<td>Number of Respondents.</td>
</tr>
<tr>
<td>NBPI</td>
<td>National Board for Prices and Incomes.</td>
</tr>
<tr>
<td>NEC</td>
<td>National Executive Committee.</td>
</tr>
<tr>
<td>NEO</td>
<td>National Executive Officer.</td>
</tr>
<tr>
<td>NPD</td>
<td>Nationaldemokratische Partei Deutschlands.</td>
</tr>
<tr>
<td>PBR</td>
<td>Payment by results.</td>
</tr>
<tr>
<td>RKW</td>
<td>Rationalisationskuratorium der Wirtschaft.</td>
</tr>
<tr>
<td>RGBI</td>
<td>Reichsgesetzblatt.</td>
</tr>
<tr>
<td>SIC</td>
<td>Standard Industrial Classification.</td>
</tr>
<tr>
<td>SJB</td>
<td>Statistisches Jahrbuch.</td>
</tr>
<tr>
<td>SPD</td>
<td>Sozialdemokratische Partei Deutschlands.</td>
</tr>
<tr>
<td>SPSS</td>
<td>Statistical Package for the Social Sciences.</td>
</tr>
<tr>
<td>SSRC</td>
<td>Social Science Research Council.</td>
</tr>
<tr>
<td>TGWU</td>
<td>Transport and General Workers' Union.</td>
</tr>
<tr>
<td>ULA</td>
<td>Union der Leitenden Angestellten.</td>
</tr>
<tr>
<td>USDAW</td>
<td>Union of Shop, Distributive and Allied Workers.</td>
</tr>
<tr>
<td>VAA</td>
<td>Verband angestellter Akademiker und leitender Angestellter in der chemischen Industrie.</td>
</tr>
<tr>
<td>VCI</td>
<td>Verband der Chemischen Industrie.</td>
</tr>
<tr>
<td>VDA</td>
<td>Vereinigung der Deutschen Arbeitgeberverbände.</td>
</tr>
<tr>
<td>WO MitbestG</td>
<td>Wahlordnung zum Mitbestimmungsgesetz.</td>
</tr>
<tr>
<td>WSA</td>
<td>Weekly Staff Agreement.</td>
</tr>
</tbody>
</table>
Summary of Interview Codings.

West Germany

a. General Interviews

BRV Works Council Respondent.
CM Management Respondent.
ER Employers' Association Respondent.
FTO Trade Union Respondent.

b. Agrochemie AG

BR Works Council Respondent.
M Management Respondent.
VL Trade Union Lay Officer Respondent.
Number Shopfloor Respondent.

United Kingdom

MAN Management/Employers' Association Respondent.
TU Trade Union Respondent.
**Glossary of Standard Translations.**

### a. English - German.

<table>
<thead>
<tr>
<th>English</th>
<th>German</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appeals Committee</td>
<td>Beschwerdeausschuss.</td>
</tr>
<tr>
<td>Arbitration (general term)</td>
<td>Schlichtung.</td>
</tr>
<tr>
<td>Association of Salaried Academics and Senior Managerial Staff in the chemical industry</td>
<td>Verband angestellter Akademiker und leitender Angestellter in der chemischen Industrie.</td>
</tr>
<tr>
<td>Basic Law</td>
<td>Grundgesetz.</td>
</tr>
<tr>
<td>Building Workers' Union</td>
<td>IG Bau-Steine-Erden.</td>
</tr>
<tr>
<td>Chemical Employers' Association</td>
<td>Arbeitsring der Arbeitgeberverbände der Deutschen chemischen Industrie.</td>
</tr>
<tr>
<td>Chemical Workers' Union</td>
<td>IG Chemie-Papier-Keramik.</td>
</tr>
<tr>
<td>Christian Trade Union Confederation of Germany</td>
<td>Christlicher Gewerkschaftsbund Deutschlands.</td>
</tr>
<tr>
<td>Collecting steward</td>
<td>Kassierer.</td>
</tr>
<tr>
<td>Collective Agreements Act</td>
<td>Tarifvertragsgesetz.</td>
</tr>
<tr>
<td>Collective bargaining committee</td>
<td>Tarifkommission.</td>
</tr>
<tr>
<td>Company agreement</td>
<td>Firmentarifvertrag (rare: Unternehmensstarifvertrag).</td>
</tr>
<tr>
<td>Company works council</td>
<td>Gesamtbetriebsrat.</td>
</tr>
<tr>
<td>Director General</td>
<td>Hauptgeschäftsführer.</td>
</tr>
<tr>
<td>Disputes over interests</td>
<td>Regelungsstreitigkeiten.</td>
</tr>
<tr>
<td>Disputes over rights</td>
<td>Rechtsstreitigkeiten.</td>
</tr>
<tr>
<td>District (of a trade union)</td>
<td>Verwaltungsstelle.</td>
</tr>
<tr>
<td>District committee</td>
<td>Verwaltungsstellenvorstand.</td>
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</tbody>
</table>
District conference
District delegate conference
District officer
District secretary
Economics committee
Employers' association
Employers' organisation
Executive Committee
Factory Workers' Union
Federal Constitutional Court
Federation of German Industry
German Civil Servants' Association
German General Workers' Association
German Salaried Staff Union
German Trade Union Confederation
Head Office (of a trade union)
Instant dismissal
Joint conciliation (chem. ind.)
Joint-stock company
Labour director
Lay officer
Lay officers executive committee
Local agreements clause

Verwaltungsstelle - Delegiertenversammlung.
Verwaltungsstelle - Delegiertenhauptversammlung.
Sekretär einer Verwaltungsstelle.
Geschäftsführer einer Verwaltungsstelle.
Wirtschaftsausschuss.
Arbeitgeberverband.
Unternehmerverband.
Vorstand.
Verband der Fabrikarbeiter Deutschlands.
Bundesverfassungsgericht.
Bundesverband der Deutschen Industrie.
Deutscher Beamtenbund.
Allgemeiner Deutscher Arbeiterverein.
Deutsche Angestelltengewerkschaft.
Deutscher Gewerkschaftsbund.
Zentrale
Fristlose Kündigung.
Schlichtung.
Aktiengesellschaft.
Arbeitsdirektor.
Gewerkschaftlicher Vertrauensmann.
Vertrauenskörperleitung.
"Öffnungsklausel."
<table>
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<tr>
<th>English Term</th>
<th>German Term</th>
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<tr>
<td>Limited liability company</td>
<td>Gesellschaft mit beschränkter Haftung.</td>
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<td>Metalworkers' Union</td>
<td>IG Metall.</td>
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<td>National bargaining committee</td>
<td>Manteltarifkommission.</td>
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<td>National delegate conference</td>
<td>Gewerkschaftstag.</td>
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<td>National executive committee</td>
<td>Hauptvorstand.</td>
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<td>Geschäftsführender Hauptvorstand.</td>
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<td>National Federation of German Industry</td>
<td>Reichsverband der Deutschen Industrie.</td>
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<td>Office staff</td>
<td>Kaufmännische Angestellte.</td>
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<td>Peace obligation</td>
<td>Friedenspflicht.</td>
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<td>Plant representative</td>
<td>Betrieblicher Vertrauensmann.</td>
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<td>Politische Vermittlung.</td>
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<td>Region (of a trade union)</td>
<td>Bezirk.</td>
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<td>Bezirksdelegiertenkonferenz.</td>
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<td>Bezirkssekretär.</td>
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<tr>
<td>Regional secretary</td>
<td>Bezirksleiter.</td>
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<tr>
<td>Representative council for senior managerial staff</td>
<td>Sprecherausschuss.</td>
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<td>Rules committee</td>
<td>Satzungskommission.</td>
</tr>
<tr>
<td>Senior managerial staff</td>
<td>Leitende Angestellte.</td>
</tr>
<tr>
<td>Senior negotiator</td>
<td>Verhandlungsführer.</td>
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<td>Senior staff</td>
<td>AT-Angestellte.</td>
</tr>
<tr>
<td>Site (Works) agreement</td>
<td>Haustarifvertrag (rare: Werks- tarifvertrag.)</td>
</tr>
<tr>
<td>Strike ballot</td>
<td>Urabstimmung.</td>
</tr>
<tr>
<td>Suggestion scheme</td>
<td>Vorschlagswesen.</td>
</tr>
<tr>
<td>Supervisory board</td>
<td>Aufsichtsrat.</td>
</tr>
</tbody>
</table>
Technical staff
Time for referral
Trade association
Unified pay agreement
Union standing committee
Workers' Council
Works assembly
Works committee
Works conciliation committee
Works Constitution Act
Works council(lor)
Works Council Act 1920
Works council agreement

b. German - English.

Aktiengesellschaft
Joint-stock company.
Allgemeiner Deutscher
German General Workers' Association.
Arbeiterverein
Arbeiterrat
Workers' council.
Arbeitgeberverband
Employers' association.
Arbeitsdirektor
Labour director.
Arbeitsring der Arbeitgeber-
Chemical Employers' Association.
verbände der Deutschen
Chemischen Industrie
AT-Angestellte
Senior staff.
Aufsichtsrat
Supervisory board.
Beirat
Union standing committee.
Beschwerdeausschuss
Appeals committee.
Betrieblicher Vertrauensmann
Plant representative.
<p>| Betriebsausschuss | Works committee. |
| Betriebsrat | Works council(lor). |
| Betriebsvereinbarung | Works council agreement. |
| Betriebsverfassungsgesetz | Works Constitution Act. |
| Betriebsversammlung | Works assembly. |
| Bezirk | Region (of a trade union). |
| Bezirksdelegiertenkonferenz | Regional delegate conference. |
| Bezirksleiter | Regional secretary. |
| Bezirkssekretär | Regional officer. |
| Bezirksvorstand | Regional committee. |
| Bundesverband der Deutschen Industrie | Federation of German Industry. |
| Bundesvereinigung der Deutschen Arbeitgeberverbände | Confederation of German Employers' Association. |
| Bundesverfassungsgericht | Federal Constitutional Court. |
| Christlicher Gewerkschaftsbund Deutschlands | Christian Trade Union Confederation of Germany. |
| Deutsche Angestellten-union | German Salaried Staff Union. |
| Deutscher Beamtenbund | German Civil Servants' Association. |
| Deutscher Gewerkschaftsbund | German Trade Union Confederation. |
| Einigungsstelle | Works conciliation committee. |
| Entgelttarifvertrag | Unified pay agreement. |
| Erklärungsfrist | Time for referral. |
| Firmentarifvertrag | Company agreement. |
| Friedenspflicht | Peace obligation. |
| Fristlose Kündigung | Instant dismissal. |
| Gesamtbetriebsrat | Company works council. |</p>
<table>
<thead>
<tr>
<th>German Term</th>
<th>English Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geschäftsführender Hauptvorstand</td>
<td>National Executives Officers.</td>
</tr>
<tr>
<td>Geschäftsführer einer Verwaltungsstelle</td>
<td>District secretary.</td>
</tr>
<tr>
<td>Gesellschaft mit beschränkter Haftung</td>
<td>Limited liability company.</td>
</tr>
<tr>
<td>Gewerkschaftlicher Vertrauensmann</td>
<td>Lay officer.</td>
</tr>
<tr>
<td>Gewerkschaftstag</td>
<td>National delegate conference.</td>
</tr>
<tr>
<td>Grundgesetz</td>
<td>Basic Law.</td>
</tr>
<tr>
<td>Hauptgeschäftsführer</td>
<td>Director-General.</td>
</tr>
<tr>
<td>Hauptsvorstand</td>
<td>National Executive Committee.</td>
</tr>
<tr>
<td>Haustarifvertrag</td>
<td>Site (Works) agreement.</td>
</tr>
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<td>IG Bau-Steine-Erden</td>
<td>Building Workers' Union.</td>
</tr>
<tr>
<td>IG Chemie-Papier-Keramik</td>
<td>Chemical Workers' Union.</td>
</tr>
<tr>
<td>IG Metall</td>
<td>Metalworkers' Union.</td>
</tr>
<tr>
<td>Industrieverband</td>
<td>Trade Association.</td>
</tr>
<tr>
<td>Kassierer</td>
<td>Collecting steward.</td>
</tr>
<tr>
<td>Kaufmännische Angestellte</td>
<td>Office staff.</td>
</tr>
<tr>
<td>Leitende Angestellte</td>
<td>Senior managerial staff.</td>
</tr>
<tr>
<td>Manteltarifkommission</td>
<td>National bargaining committee.</td>
</tr>
<tr>
<td>Politische Vermittlung</td>
<td>Political mediation.</td>
</tr>
<tr>
<td>Rechtsstreitigkeiten</td>
<td>Disputes over rights.</td>
</tr>
<tr>
<td>Regelungsstreitigkeiten</td>
<td>Disputes over interests.</td>
</tr>
<tr>
<td>Reichsverband der Deutschen Industrie</td>
<td>National Federation of German Industry.</td>
</tr>
<tr>
<td>Satzungskommission</td>
<td>Rules committee.</td>
</tr>
<tr>
<td>Schlichtung</td>
<td>Arbitration (general term).</td>
</tr>
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</table>
Schlichtung
Sekretar einer Verwaltungsstelle
Sprecherausschuss
Tarifkommission
Tarifvertragsgesetz
Technische Angestellte
Unternehmerverband
Urabstimmung
Verband angestellter Akademiker und leitender Angestellter in der Chemischen Industrie
Verband der Fabrikarbeiter Deutschlands
Vereinigung der Deutschen Arbeitgeberverbände
Verhandlungsführer
Vertrauenskörperleitung
Verwaltungsstelle
Verwaltungsstelle-Delegiertenhauptversammlung
Verwaltungsstelle-Delegiertenversammlung
Verwaltungsstellenvorstand
Vorschlagswesen
Vorstand
Wirtschaftsausschuss
Zentrale

Joint conciliation (chem. ind.).
District officer.
Representative council for senior managerial staff.
Collective bargaining committee.
Collective Agreements Act.
Technical staff.
Employers' organisation.
Strike ballot.
Association of Salaried Academics and Senior Managerial Staff in the chemical industry.
Factory Workers' Union.
Confederation of German Employers' Associations.
Senior negotiator.
Lay officers executive committee.
District (of a trade union).
District delegate conference.
District conference.
District committee.
Suggestion scheme.
Executive committee.
Economics committee.
Head office (of a trade union).
Chapter I.

Introduction.

The chemical industry is perhaps the most important industry in the West German economy. (1) Although such a claim cannot be made in Britain, the chemical industry is nevertheless one of the fastest growing sectors. (2) In 1977 it accounted for 5.6 per cent of total manufacturing sales (3) whilst in 1978 11.2 per cent of total exports and 6 per cent of manufacturing employment were attributable to the chemical industry. (4) In the same year the West German chemical industry was responsible for 11.2 per cent of total industrial turnover, 15.6 per cent of exports but only 7.5 per cent of manufacturing employment. (5)

Why then, if the chemical industry is so important to the economies of both countries, have the industrial relations of this industry received rather little academic attention? (6) The most obvious answer to this question may probably be found in the relatively


3. Personal communication from Mr. Egerton, Annual Census of Production, Newport, 7.9.1979, own calculations.


Academic attention in Britain has more traditionally been focused on industries which have been more affected by strike action such as coal mining, motor vehicle production and engineering. In the Federal Republic industrial relations does not exist as a subject in its own right, although a variety of sociologists such as Bergmann, Hartmann and Jacobi work within this area.

These factors, together with the absence of an academic comparison of industrial relations in the West German and British chemical industries, were the initial reasons for selecting this topic of research. Another reason was a belief that crossnational comparisons of industrial relations could lead to a better understanding of the subject.

Furthermore, the author's background and experience in the chemical industry was particularly beneficial whilst carrying out the study.

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7. This topic is discussed in detail below, particularly in Chapter 7.
The author spent one year working in a laboratory on the main production site of one of the three major West German chemical companies as a part of his first degree which was primarily in chemistry.\(^{12}\)

This experience provided a practical grasp of industrial relations in this type of environment and it has proved invaluable as an aid to understanding labour relations in the chemical industry in general.

A study of industrial relations in the chemical industry possesses certain advantages for the researcher because it has enjoyed a stable economic background and is a prime example of a high technology industry. Since these conditions are common to both Britain and West Germany, it should be possible to draw some conclusions about their influence on industrial relations within different national environments.

The lack of research into industrial relations within the chemical industry was apparently conspicuous to a number of other authors, for during the course of the study, several publications have appeared on the subject. The most noteworthy of these in English is Gill and his colleagues' study of industrial relations in the British chemical industry which demonstrates clearly the significance of government intervention.\(^{13}\) Two other recent studies by

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12. Combined Honours Studies in Chemistry (60\%) and German language with Regional Studies (40\%). Part of the regional studies programme was devoted to industrial relations. In this way, the necessary linguistic skills were gained to carry out the research as was an ability to understand the technical nature of the industry.

13. Gill et al., op.cit.
Theo Nichols in collaboration with Armstrong and Beynon are of particular relevance to this investigation since they were carried out in similar factories to those used here for the case study investigations. (14)

In West Germany, a number of recent publications have also been added to Fürstenberg's classic study concerning the social conditions of the lives of chemical workers. (15) These studies include Dzielak et al's analysis of the 1971 strike in the chemical industry (16) and the work of the Projektgruppe Gewerkschaftsforschung based at the Institute of Social Research in Frankfurt. (17)

The study has a number of primary aims. It attempts to provide explanations for the basic characteristics of industrial relations in the West German chemical industry and to compare these explanations with the situation in the British chemical industry. In this way an endeavour is made to provide a more general interpretation of industrial relations in the chemical industry.

(i) Definitions and Terminology.

It has so far been assumed that there is no difficulty in defining either the chemical industry or indeed what is meant by industrial

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17. Amongst others this research group includes Otto Jacobi and Walter Müller-Jentsch and has published regularly on the chemical industry since 1977.
In 1958 Reddaway noted some reasons for the difficulties which arise in finding a generally acceptable definition for the chemical industry. Amongst others he named the diversity of goods produced and the fact that some of these products are really intermediary materials for the production of others. If anything, these problems have increased in the twenty years which have passed since then. Furthermore, international concepts of the industry also vary and since this study is a comparison between the two countries additional difficulties arise.

It might seem logical to attempt to define the industry according to the scientific methods used. However, all industries which employ chemical reactions cannot be considered to be a part of the chemical industry. An example may be provided by the production of iron from iron ore, which, although a chemical process, is very rarely considered a part of the chemical industry.

In general, two types of approach are taken to delimit the chemical industry in both Britain and Germany. The first relies on confining

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18. Although "industrial relations" is generally used here, "labour relations" is used occasionally for stylistic relief. No particular significance should be attributed to the particular term used in specific circumstances as it is assumed that they have equivalent meanings.


the industry to a number of areas such as "heavy chemicals, industrial explosives, plastics and synthetic resins." This is a very narrow definition which has no equivalent in Germany, since pharmaceuticals, paints, detergents, photographic chemicals and cosmetics, etc. have been included in a narrow definition. The second approach is to include a large number of associated industries within the scope of the chemical industry. Examples of these industries are glass, cement, ceramics, fermentation and tanning.

The definitions which have been chosen by relevant institutions such as the Chemical Industries Association, the German Chemical Employers' Federation and the statistical offices in both countries all vary. The CIA takes a very narrow definition since separate JIC's exist for paints, soap, candle and edible fats. Taking this definition about 270,000 employees are covered by the CIA. The German employers, on the other hand, take a very wide definition which corresponds to that for the chemical insurance society and which covers over 870,000 employees.

23. Association of British Chemical Manufacturers, Report on the Chemical Industry, 1949, p.5. This seems to be the origin of the approach taken by the Chemical Industries Association (CIA). Interview MAN 9, Dec.'77. (The interview coding system is explained below).


26. Interview MAN 9, Dec.'77. Separate negotiations still take place for general workers in the Chemical and Allied (Heavy Chemicals) and Drug and Fine Chemicals areas. Gill et al., op.cit., p.9f.

Official statistics offices in both Britain and West Germany have taken positions which fall between these two extremes. The Standard Industrial Classification (SIC) revised in 1968 and used by the Department of Trade and Industry for the annual Census of Production is perhaps the most useful definition for the U.K. since most statistics are based on it. Order V in the SIC, Chemicals and Allied Industries as the group is called, covered 431 000 employees in 1978 \(^{(28)}\) and the table below shows its breakdown into 18 industrial sectors.

**Table 1.1.**

Chemicals and Allied Industries - Order V \(^{(29)}\)

<table>
<thead>
<tr>
<th>Minimum List Heading</th>
<th>Sector</th>
</tr>
</thead>
<tbody>
<tr>
<td>271</td>
<td>General Chemicals</td>
</tr>
<tr>
<td>.1</td>
<td>Inorganic chemicals and gases</td>
</tr>
<tr>
<td>.2</td>
<td>Organic chemicals</td>
</tr>
<tr>
<td>.3</td>
<td>Other chemicals</td>
</tr>
<tr>
<td>272</td>
<td>Pharmaceutical Chemicals and Preparations</td>
</tr>
<tr>
<td>273</td>
<td>Toilet Preparations</td>
</tr>
<tr>
<td>274</td>
<td>Paint</td>
</tr>
<tr>
<td>275</td>
<td>Soap and Detergents</td>
</tr>
<tr>
<td>276.1</td>
<td>Synthetic resins and plastics materials</td>
</tr>
<tr>
<td>.2</td>
<td>Synthetic rubber</td>
</tr>
<tr>
<td>277</td>
<td>Dyestuffs and Pigments</td>
</tr>
<tr>
<td>278</td>
<td>Fertilizers</td>
</tr>
<tr>
<td>279</td>
<td>Other Chemical Industries</td>
</tr>
<tr>
<td>.1</td>
<td>Polishes</td>
</tr>
<tr>
<td>.2</td>
<td>Formulated adhesives, gelatine, etc.</td>
</tr>
<tr>
<td>.3</td>
<td>Explosives and fireworks</td>
</tr>
<tr>
<td>.4</td>
<td>Formulated pesticides, etc.</td>
</tr>
<tr>
<td>.5</td>
<td>Printing ink</td>
</tr>
<tr>
<td>.6</td>
<td>Surgical bandages, etc.</td>
</tr>
<tr>
<td>.7</td>
<td>Photographic chemical materials</td>
</tr>
</tbody>
</table>

In West Germany a similar definition is used but it includes synthetic


fibres, as indeed does the Standard International Classification. \(^{(30)}\)

In 1978 this definition covered 565,700 employees. \(^{(31)}\)

It can be concluded that official statistics on the chemical industry are fairly comparable for West Germany and the United Kingdom and for this reason these classifications will generally be used for the purpose of statistical comparison. \(^{(32)}\) The diversity of industries with an enormous number of goods produced by many different processes presents problems, however, for the choice of an appropriate research design to study the industry. The solution used in this case is discussed below. The variations in the definitions of the chemical industry employed particularly by organisations involved in industrial relations should nevertheless be borne in mind.

Professor Hugh Clegg has recently discussed the meaning of the term "industrial relations" and the significance of ideological standpoints on it. \(^{(33)}\) He comes to the conclusion that the selection of either Marxist or pluralist approaches does not necessarily mean that different answers are arrived at. This analysis seems to provide a working basis and Clegg's definition of the study of industrial relations being concerned with "the rules which government employment" \(^{(34)}\) or as Flanders put it, "the institutions of job regulation", \(^{(35)}\) might be accepted as

32. However, in a recent German publication, a definition excluding synthetic fibres was chosen and data from this source will also be used for comparative purposes. *of. Projektgruppe Gewerkschaftsforschung, Band 2*, 1979, *op.cit.*, p.295.
useful in the context of this research project.

Any comparative study of aspects of countries in which different languages are spoken is bound to be fraught with terminological difficulties. In order to make this study as accessible as possible to readers who are not totally familiar with West German or British industrial relations, a glossary of standard translations has been included to aid comprehension. In addition, quotations from German publications have been translated and the original text has been included in a footnote.

It should perhaps be added that a considerable amount was learnt in the field of terminology by the author during the course of his investigations. As a result of some initial misconceptions, respondents occasionally understood questions in ways which were not intended, but this did not pose a serious problem since it was obvious from their answers. In such cases, more precise questions could then be put in order to gain the information required. A consideration of this type of problem leads naturally to the next section, in which the research methods chosen are discussed.

(iii) Research methods.

Some indication of the difficulties involved in selecting an appropriate

36. These translations are mostly those in general use although some revisions of common translations have been made by the author in the light of his experience and to suit their applicability to the chemical industry.

37. Some examples of those terms which created "problems" (a word which incidentally was unacceptable to a large number of respondents) are discussed in a variety of places below. Also translation of the term "industrial relations" created particular difficulties. Eventually "Arbeitgeber- und Arbeitnehmerverhältnisse" was decided upon but it was clumsy and not understood by all respondents. No German term is in common usage but with hindsight "Arbeitsbezie-

research design\(^{(38)}\) has been given above. To recapitulate, a research
design was required which would enable a single investigator with
limited resources in terms of finance and time to study industrial
relations in the chemical industries of both West Germany and the
United Kingdom. These industries are extremely diverse, they produce
everseous numbers of very different goods using a large variety of
production processes and which employ together approximately one million
people.

It was decided to limit the areas of industrial relations covered to
the most important. Particular emphasis was given in the empirical
investigations to collective bargaining at its various levels, to
the trade unions and employers' associations active in the chemical
industry, and to a study of workplace industrial relations. Con-
sideration was also given to the influence of legislation on industrial
relations, particularly within those areas listed above.

The approach chosen concentrated on two main empirical methods. On
the one hand, in order to investigate the roles of trade unions,
employers' associations, their relations and the practice of collective
bargaining a series of experts were selected and interviewed by use
of an informal focused interview technique,\(^{(39)}\) whilst workplace

\[\text{\(38\). A useful review of this subject may be found in J.A. Black and}
D.J. Champion, Methods and Issues in Social Research, New York,
1976, pp. 75-121.}

\[\text{\(39\). C.A. Moser and G. Kalton, Survey Methods in Social Investigation,}
Interview in der Sozialforschung", in R. König (ed.), Handbuch
der empirischen Sozialforschung, Band 2, Grundlegende Methoden
und Techniken der empirischen Sozialforschung, Erster Teil,
relations were investigated primarily by the use of case studies supported by visits to a number of major companies. These investigations are discussed below.

Informal focused interviews allow the respondents a good deal of freedom, are ideal for gaining detailed information and are much more likely to lead to unknown facts than highly structured interviews.\(^{40}\) At the same time, use of an interview schedule ensures that all the topics are covered and this should provide reasonably comparable data of known validity and acceptable reliability.\(^{41}\)

These interviews were normally conducted with only one respondent present although occasionally this was not possible since senior officials insisted on a protégé being present. It was considered impolitic for the interviewer to object greatly to this for fear of prejudicing the willingness of respondents to take part in the survey.\(^{42}\)

The length of the interviews which were usually recorded on cassette tapes\(^{43}\) varied considerably according to the situation, the responsiveness of the respondent and the actual interview schedule being used.\(^{44}\) Nevertheless, it can be said that the interviews generally

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41. Both these factors are discussed in detail by Black and Champion, *op.cit.*, pp.222-261.


43. On three occasions only was permission to record the interview refused, twice in Germany and once in the U.K. On two further occasions tape recorder failure necessitated a reversion to note-taking, as did technical conditions beyond the interviewer's control such as background noise on three occasions.

44. A number of phases of interviews were used, see below. A selection of interview schedules are reproduced in Appendix 2.2.
lasted between forty-five minutes and three hours, although on one notable occasion an interview lasted six hours excluding interruptions. Although there are certain dangers attendant upon lengthy interviews — increase in errors by respondents with time\(^\text{45}\) — a great deal of valuable information was nevertheless gained by allowing the respondents to answer questions fully and to elaborate with examples if they so desired. Since interviewers are more prone to tiredness than respondents,\(^\text{46}\) a ready check on this source of errors is provided by the interviewer himself.

All interviews were conducted by the author so the problems of interviewer variability were eliminated.\(^\text{47}\) Although the author had no formal training in interviewing, several standard works\(^\text{48}\) were studied before the major rounds of interviews were attempted. In this way it was hoped to at least keep the errors as a result of interviewing to an acceptable minimum.\(^\text{49}\)

The empirical investigations in the United Kingdom were carried out over a period of two years as appointments could be gained with the desired respondents, whilst in Germany it was necessary to concentrate as many interviews as possible into a short period in order to justify the high costs of a visit. A series of visits to Germany were made


\(^{46}\) E.K. Scheuch, \textit{op.cit.}, p.93.


\(^{48}\) Particularly E.K. Scheuch, \textit{op.cit.}, and Moser and Kalton, \textit{op.cit.}, pp.270-301.

\(^{49}\) Further discussion of the limitations of the research design and possible sources of error may be found below.
during the course of the study. Although the research was carried out to a certain extent concurrently in both countries, for simplicity's sake, a detailed breakdown of the interviews will be given separately, commencing with the United Kingdom.

It was decided early in the study to concentrate investigations on West Germany since much less had been published on industrial relations in the chemical industry or generally than in the United Kingdom. The interviews carried out in this country were designed to provide further insights to the published material and to clarify certain specific points. (50)

A total of ten respondents were interviewed in this way, covering the six largest trade unions in the chemical industry (51) and the Chemical Industries Association. The respondents were mainly the national trade union officers or their assistants and on the employers' side, a senior executive was interviewed.

Due to the relatively small number of interviews carried out in the U.K. (52), the interviews are coded simply into two groups, with no differentiation between the respondents questioned on workplace or more general industrial relations issues. Trade union respondents are coded TU followed by a number (1 to 15) and the approximate date. Management and employers' respondents are coded similarly with the prefix MAN and

50. The high percentage of interviews dealing with workplace industrial relations (64%) also reflects the greater importance of this area of industrial relations in the United Kingdom.
51. TGWU, GMWU, USDAW, AUEW, KETPU, ASTMS.
52. See the discussion of the case studies below.
numbers ranging from 1 to 13.

A total of four research trips were made to West Germany. The primary aim of the initial visit\(^{(53)}\) was to establish contacts with a number of relevant organisations such as trade unions, employers' organisations and statistical offices. A collection of primary source material was also made to aid preparation for the second visit which was the first phase of a survey of trade unions and employers' associations as well as to establish contacts with a number of chemical companies to explore the possibility of case study investigations and to gain background information on workplace industrial relations. This is discussed in more detail below. A short third visit was carried out to pre-test questionnaires for a survey of conciliation and arbitration\(^{(54)}\) in the chemical industry. Finally, during the last visit the conciliation and arbitration survey was completed and the case study investigations were carried out.

In all, twenty eight trade union representatives and fourteen officials\(^{(55)}\) from the chemical employers' were interviewed. The German trade union respondents are coded with the letters FTO, a number (1 to 28) and the

\(\text{53. Dates of the visits were:}
\begin{align*}
(a) & \text{ March 1977 (1}\frac{1}{2}\text{ weeks)} \\
(b) & \text{ August-September 1977 (2 months)} \\
(c) & \text{ February 1978 (1 week)} \\
(d) & \text{ October-November 1978 (2 months)}
\end{align*}\)

54. These investigations were carried out as part of a comparative investigation of conciliation and arbitration in the U.K. and West Germany which was financed by the Federal Trust for Education and Research. The author was requested to carry out a survey of the situation in the West German chemical industry. This opportunity to study in more detail these two features which are central issues both in collective bargaining and workplace industrial relations was greatly appreciated. (Report forthcoming).

\(\text{55. Thirteen full-time officers and the chairman of a variety of collective bargaining committees who might be classified a lay official.}\)
approximate date, whilst the employers’ respondents have ER, a number (1 to 14) and the date.

No attempt at random selection of these respondents was made. They were chosen as a result of their function so that as much of their respective organisations could be covered as possible (purposive sampling). The table below shows the percentages of the various types of officials covered on the trade union side.

Table 1.2.
Percentages of Trade Union Officials Interviewed. (56)

<table>
<thead>
<tr>
<th>Official</th>
<th>Total Number</th>
<th>Interviewed Number</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Workers’ Union:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>National Executive Officers</td>
<td>8</td>
<td>2</td>
<td>25.0</td>
</tr>
<tr>
<td>Regional Secretaries</td>
<td>8</td>
<td>5 (57)</td>
<td>62.5</td>
</tr>
<tr>
<td>Regional Officials</td>
<td>37</td>
<td>5</td>
<td>13.5</td>
</tr>
<tr>
<td>District Secretaries and Officials</td>
<td>152</td>
<td>7</td>
<td>4.6</td>
</tr>
<tr>
<td>Head Office Officials</td>
<td>69</td>
<td>4</td>
<td>5.8</td>
</tr>
<tr>
<td>Officials of other Trade Unions</td>
<td>--</td>
<td>5</td>
<td>--</td>
</tr>
<tr>
<td>Total CWU</td>
<td>274</td>
<td>23</td>
<td>8.4</td>
</tr>
</tbody>
</table>

A small number of officials were interviewed on several occasions and social contacts also provided the opportunity for a large number of informal discussions which greatly increased the author’s insight.

56. The percentages are calculated according to the number of officials on 31.12.1975. GB 72-75, op. cit., p.343.

57. One Regional Secretary interviewed has subsequently been elected onto the National Executive.
into the workings of the Chemical Workers' Union. A good coverage of the trade union regions was achieved, for interviews were held with officials from 87.5 per cent of the regions covering 90.2 per cent of members in employment.\(^{(58)}\) Due to the much larger number of districts the same sort of coverage could not be achieved, although officials were interviewed in 10.4 per cent of districts covering 24.5 per cent of members in employment.\(^{(59)}\)

As far as the Chemical Employers' Associations were concerned, interviews were held with representatives of the national organisation (3) and with officials from six out of twelve regional employers' associations which nevertheless covered 84.5 per cent of employees working for chemical companies organised in employers' associations.\(^{(60)}\)

In this way it was hoped to cover as much of the chemical industry as possible. However, since the larger and more important regions, districts and associations were selected it is possible that industrial relations in the smaller, less important regions, often containing much smaller companies are under-represented. Some balance has perhaps been achieved, however, by carrying out the case study investigations on smaller sites. It is to a discussion of the case studies that we now turn.

It was decided that a case study approach\(^{(61)}\) would be the most appropriate

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59. *Ibid*. Six large districts and one very small one were visited.
Some major advantages of this method are flexibility in data collection methods, the ability to study a subject in depth and the suitability of case studies for the generation and testing of hypotheses on the operation of workplace industrial relations in the chemical industry which were some of the major aims of the study. The major disadvantage is, of course, the lack of generalisability of the data, and this, given the disparate nature of the chemical industry, does limit the applicability of the findings considerably. It had initially been hoped to carry out a series of case studies to reduce this problem, but as will be explained, circumstances made this impossible.

In order to compare workplace industrial relations in the West German and British chemical industries, similar plants were required in both countries. By searching the production statistics of individual chemicals in various production locations in both countries it was possible to draw up fourteen pairs of plants where similar processes were used to produce similar tonnages per annum of particular chemicals.

The size range of the companies producing these chemicals varied con-

62. Some of the methods used included informal focused interviews, structured interviews, observation and documentary analysis. These types of method have recently been recommended. G. Cole and R. Stuart-Kotze, "Employee attitude surveys - a neglected technique," Optimum, Vol.10, No.1, 1979, p.22.


64. In the chemical industry a plant is generally a single production unit for the production of e.g. sulphuric acid. Plants are grouped together into works, factories, or sometimes on a site. On matching techniques cf. Moser and Kalton, op.cit., p.220ff.

65. Chemical Data Services, Chemical Plant Data Book, London, no date (under constant revision).
siderably in both countries from approximately 1000 up to the largest companies in the industry. The chemicals covered a number of sectors, but were classified primarily in the general chemicals (both inorganic and organic) sector together with fertilizers and plastics materials. It is recognised that these sectors form the heavy chemicals end of the industry and that the fine chemicals sectors such as pharmaceuticals, toiletries, etc., have been ignored generally as far as a direct study of workplace industrial relations is concerned. Since these sectors often use batch processes, and relations are commonly different under these conditions, this represents a weakness of the study which was caused by chance and which due to limitations of resources and manpower could not be rectified later.

The list of plants and companies was used to explore the possibility of carrying out case study investigations and to gain understanding and background information on workplace industrial relations in the chemical industry by holding interviews with plant and personnel managers on the one hand and works councillors and shop steward convenors on the other.

In general, the German companies were very helpful and forthcoming; several of them agreed in principle that it would be permissible to carry out a case study on their premises. However, the British companies were far less co-operative. The refusal of one very major British chemical company to have anything to do with the study eliminated a high

66. Several respondents stressed the differences, e.g. Interviews TU 9, Feb.'78 and TU 14, June '78.
percentage of the possible pairs of plants. (67) Eventually provisional permission to carry out case studies was received from two British companies. The corresponding German firms were approached and one case study was carried out at Agrochemie AG. (68)

It proved impossible to carry out the second study to the scope which would have justified classification as a case study, since the climate of industrial relations in the company was marked by a feeling of insecurity on the part of the workforce as a result of the fact that the investigations were preceded by a considerable drop in the international value of the dollar and the company concerned is owned by an American Corporation. A limited number of personnel managers and works councillors were interviewed together with one production manager, but these interviews have subsequently been classified together with those providing background information on workplace industrial relations.

On the author's return to the United Kingdom, similar problems were experienced with Growmore Ltd. Industrial relations in the works intended for investigation had become very sensitive due to the introduction of a productivity agreement. Senior company personnel management considered that an investigation would have been rejected by both local management and the workforce. However, the company arranged for

67. Industrial relations in this company receive sufficient coverage in publications so that this should not be extremely detrimental to the study in general. cf. C. Gill et al., op. cit., pp. 77-122, and J. Roeber, Social Change at Work, London, 1975.

68. All companies taking part in the study requested anonymity. Agrochemie AG is an invented name, as is Growmore Ltd. the British equivalent and any similarity with existing company names is purely accidental. The Agrochemie AG case study is discussed in more detail below.
a limited investigation in their main production works. Nine shop
steward convenors, personnel and production managers were interviewed
in total on this site. (69)

In Germany, 18 works councillors (interview coding BRV, number, date)
and 18 members of management (interview coding CM, number, date) were
interviewed as part of the background investigation of workplace indus-
trial relations. These respondents covered all the major chemical
companies as well as a range of smaller companies. In the U.K. six
shop steward convenors and twelve members of management were interviewed
from a variety of the middle-sized companies (including Growmore Ltd.)
in the chemical industry. Considering the limitations of resources
these interviews provided a reasonable amount of background information
on workplace industrial relations in the chemical industry.

Extraneous circumstances greatly reduced the value of the case study
method of comparison which had been chosen as most suitable for the
investigation of workplace industrial relations. Nevertheless, the
Agrochemie AG study described presently did fulfil the purpose as far
as Germany was concerned, and a limited comparison with the situation
in the U.K. should also be possible. (70)

One of the advantages of case study methods is that a variety of means

69. These interviews, like those already described above, together
with the others designed to gain background information on the
practice of workplace industrial relations were of the informal
focused type.

70. In particular, reference to the two studies by Nichols et al.,
cited above, which were carried out in similar works to the
Agrochemie AG works studied should be helpful in this context.
of data collection can be used. At Agrochemie AG\textsuperscript{71} a range of these were chosen, including various forms of interview and observation. Those groups of the workforce likely to be important as far as workplace industrial relations are concerned\textsuperscript{72} were supposed to be interviewed by use of an informal focused technique similar to that described above. However, it was discovered at a very early stage of the investigation that a large number of supervisors, works councillors and lay officers found difficulty in replying to questions with an open format. It was decided, therefore, to include a range of the questions from the structured questionnaire which is described below in interviews with these groups.\textsuperscript{73} The length of these informal interviews varied from 40 minutes to two hours and they were recorded on cassette tapes.

In order to survey the attitudes of wage earners and non-managerial staff on workplace industrial relations a structured questionnaire was devised which was put to the respondents orally. The author then marked their answers onto the questionnaire sheet. The questionnaire which is reproduced as Appendix 2.1 was written according to the guidelines in standard sociological reference works.\textsuperscript{74} In addition, a number of questions were adapted from previous surveys in the chemical

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71. The works investigated employs around 400 persons who are engaged on the production of fertilizers and inorganic acids. The works has been owned by a variety of firms since the Second World War and at the time of the investigation was a part of Agrochemie AG, the chemical subsidiary of a large German company. The works is located in a rural area and is the major industrial employer in the immediate vicinity.

72. \textit{i.e.} Management, works councillors and trade union lay officers.

73. \textit{cf.} Appendix 2.1. Questions included as applicable.

industry (75) in order to provide some basis for comparison with the data collected here.

In general very few problems were experienced with this questionnaire, although there was a lack of understanding of one expression in particular, Sozialeistungen. This word which might be translated as welfare or fringe benefits is common in German industry but the majority of the respondents did not understand its meaning. This illustrates the problem discussed by Scheuch in choosing words not likely to be understood by respondents. (76) Responses covering this area must be treated with a certain amount of suspicion.

These structured interviews varied in length between 25 minutes and one hour depending on the eloquence and loquacity of respondents. All interviews at Agrochemie AG were held in private in a room provided by the company which was centrally located in the works.

A fairly sophisticated sample of the Agrochemie AG workforce was selected for the interviews. Two approaches were used. The "acid" plant which had drawn initial attention to the works because of its comparability with a similar plant in the U.K. only employed 14 men. It was hoped to interview all of this group. Disproportionate stratified random samples (77) were taken of the remainder of the workforce as indicated in the following table.

76. B.K. Scheuch, op. cit., p.78ff.
Table 1.3.
Sample of the Agrochemie AG Workforce.

<table>
<thead>
<tr>
<th>Group</th>
<th>Size of Group</th>
<th>Size of Sample</th>
<th>Sample %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage earners</td>
<td>274</td>
<td>37</td>
<td>13.5</td>
</tr>
<tr>
<td>Staff (non-managerial)</td>
<td>43</td>
<td>9</td>
<td>20.9</td>
</tr>
<tr>
<td>Staff (managerial)</td>
<td>35</td>
<td>6</td>
<td>17.1</td>
</tr>
<tr>
<td>Lay Officers</td>
<td>30(40)(78)</td>
<td>6</td>
<td>20.0 (15.0)</td>
</tr>
<tr>
<td>Works Councillors</td>
<td>10</td>
<td>6</td>
<td>60.0</td>
</tr>
<tr>
<td>Senior Managers</td>
<td>4</td>
<td>4</td>
<td>100.0</td>
</tr>
</tbody>
</table>

A disproportionate stratified random sample was chosen in order to ensure the selection of a high percentage of people heavily involved in workplace industrial relations. It also allows more account to be taken of minority groups such as non-managerial staff where a higher refusal rate was expected based on the author's experience of employment within this group. As is seen below, these expectations were justified.

According to probability theory, at a 5 per cent standard error, estimating the proportion of the population exhibiting a given characteristic to be 50 per cent (this gives the maximum sample size) and employing the finite population correction, a simple random sample

78. In fact the 10 works councillors are also lay officers but they were not selected under this group. This illustrates a general problem. It was almost impossible to make the groups mutually exclusive with the result that lay officers turned up within all the other groups except senior management and managerial staff appeared within both the lay officer and works councillor groups. This led to an even higher degree of selection of these groups than was intended. Selection of the lay officers was carried out by the works council chairman according to the random sampling method explained to him. The reason for this was his unwillingness to release a list of lay officers to me. The range in knowledge and experience of the lay officers interviewed seems to indicate that they were indeed randomly chosen and not simply selected.
of 80 would be required. The final number of persons interviewed was 63, subdivided into 52 in the random sample and 11 in the "acid" plant sample. While it is realised that errors might be introduced because the sample size was too small, this is not uncommon. The main limiting factors were time since the company had specified that the maximum permissible duration of the survey was two weeks, and technological difficulties which prevented respondents being released from their jobs at the time arranged for their interviews. This often happened towards the end of the survey when it was impossible to arrange an alternative interview time.

This last factor is also of significance in computing the response rate since it meant that the number of respondents questioned was lower than it would otherwise have been. Other reasons for the difference between the absolute and the relative response rates were the unavailability of respondents due to sickness, holidays, etc. The various response rates are shown in the table below.

79. Moser and Kalton, op.cit., p.146ff and Black and Champion, op.cit., p.311ff. Corrections for the use of a disproportionate stratified random sample cannot be made, but it is assumed that the sample size would be of the same order.

80. Ibid., p.311. For tabulation the two groups will be known as the acid plant and the works sample.

81. There is no agreement as to what actually constitutes a response rate. cf. N. Lin, op.cit., p.241f. Two different ones will be used here:

\[
\begin{align*}
\text{Absolute Response Rate (ARR)} &= \frac{\text{Number interviewed}}{\text{Number in sample}} \times 100 \\
\text{Relative Response Rate (RRR)} &= \frac{\text{Number in sample} - \text{Number of Refusals}}{\text{Number in sample}} \times 100
\end{align*}
\]
Table 1.4.

Response rates and percentages interviewed, by groups.

<table>
<thead>
<tr>
<th>Group</th>
<th>ARR (%)</th>
<th>RRR (%)</th>
<th>No. in Group</th>
<th>Interviewed No.(82)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Works Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage earners</td>
<td>78</td>
<td>100</td>
<td>274</td>
<td>35(83)</td>
</tr>
<tr>
<td>Staff (non-man.)</td>
<td>56</td>
<td>66</td>
<td>43</td>
<td>5</td>
</tr>
<tr>
<td>Staff (man.)</td>
<td>84</td>
<td>100</td>
<td>35</td>
<td>7</td>
</tr>
<tr>
<td>Lay Officers</td>
<td>84</td>
<td>100</td>
<td>30(40)</td>
<td>11(84)</td>
</tr>
<tr>
<td>Works Councillors</td>
<td>84</td>
<td>100</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Senior Managers</td>
<td>100</td>
<td>100</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>2. Acid Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Wage earners</td>
<td>75</td>
<td>92</td>
<td>12</td>
<td>9</td>
</tr>
<tr>
<td>Staff (man.)</td>
<td>100</td>
<td>100</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>83</td>
<td>95</td>
<td>-</td>
<td>63</td>
</tr>
</tbody>
</table>

The relative response rates which are dependent on the number of refusals are high so that there should be little bias as a result of this. The percentage of the groups interviewed also shows that despite the non-exclusivity of groups the stratified nature of the sample has been preserved. In this way, the aim in selecting this form of sample which was to interview higher percentages of those groups more involved in workplace industrial relations was achieved.

Analysis of the questionnaire results was carried out by use of the University of Manchester SPSS system. The main form of analysis used

82. These figures are taken from Appendix 3 Tables 59 and 64. and knowledge of the breakdown of salaried staff interviewed into the various groups.
83. Including lay officers and works councillors who were also wage earners.
84. Including two who worked in the acid plant.
was frequency tabulation (85) together with some tests for differences between groups. The frequency tables were also cross-tabulated (86) with one another if a possible association between the two variables had been hypothesised and the chi-squared test of significance was used to test for association. (87) Where a more specific form of association could be expected, the more precise linear or non-linear correlation tests were carried out. (88) The level of significance used throughout is 0.05 or less which means that there is less than a 5 per cent chance of randomness causing the relationships. (89) The results of the tests are given in the body of the study where they are applicable.

Data from the informal interviews was also analysed in this way where appropriate but the main form of analysis of these interviews (90) as with all interviews of the informal focused type was content analysis and transcription of portions of the interviews from the cassette tapes.

In addition to the case study investigations and the other interviews,

85. See Appendix 3 for the results of this.
87. Ibid., p.223f.
88. Ibid., p.280ff.
90. These interviews are coded in the following way:

- Management: M, number, date.
- Works Councillors: NR, number, date.
- Lay Officers: VL, number, date.
- Other respondents: Number, date. (quotations from the standardized questionnaire)

A summary of the different interview codes used may be found after the Glossary of Abbreviations.
documentary analysis was also carried out. A wide range of primary sources produced by the parties involved in industrial relations were studied. These sources provided a wealth of detailed information about industrial relations in the chemical industry. Furthermore, their function was also taken into account and this provides a number of insights into the practice of industrial relations. Secondary data were also considered, particularly that produced by the statistical agencies in the two countries. In addition social research archives in Germany were used in order to carry out a search for relevant literature on industrial relations in the chemical industry.

In summary, the research method can be said to consist of three parts. Informal focused interviews were used to study the role and structure of the trade unions and employers' associations as well as the practice of collective bargaining at its various levels. Case study investigations and informal focused interviews were used in order to gain an understanding of workplace industrial relations and to generate and test hypotheses on this. The interviews were supported by an analysis of primary and secondary source material. In total 28 interviews were carried out in the U.K. and 141 in West Germany, 63 of which were part of the Agrochemie AG case study. During the course of this section some mention of the limitations of these methods and the possible sources of errors have been made. These subjects are now considered in greater detail.

91. In particular annual reports, press releases, union journals and publications by the employers' associations were considered.


93. Thanks are due to the Zentralarchiv für empirische Sozialforschung at the University of Cologne.
(iii) Limitations and Errors.

The primary limitations to the research method may be found within the investigation of workplace industrial relations in the U.K. and in West Germany. In order to assure a high degree of generalizability a large number of parallel studies should ideally have been carried out.\(^{(94)}\)

However, in the case of this study, limitations of time, manpower and financial resources necessitated the adoption of a less ambitious, yet comparable technique of investigation. This method did, however, result in the under-representation of certain sectors of the chemical industry particularly those using batch production processes. Furthermore, small companies and regions in which there was a low concentration of chemical industry were not considered to an ideal degree. To a certain extent these weaknesses in method can be negated through incorporation of secondary source material but the basic limitations as far as original empirical research are concerned still exist.

The research method leaned heavily on the use of interviews, whether of the informal focused or highly structured type. This can lead both to bias and to errors.\(^{(95)}\) It is important that data should be valid and reliable. Checks of validity were made in a number of ways. Some factual questions were asked to which the answer was already known. Although inaccurate replies were occasionally received to such questions they were rare, particularly with increasing seniority of the respondents in

\(^{94}\) Given a reasonably large research team, about 10 studies in each country covering a range of sectors and company sizes would produce highly comparable data of general applicability.

their respective organisations.

Other tests of validity were difficult to apply due to the nature of the samples chosen since the tests apply to simple random samples. Nevertheless, it is possible to compare the percentage turnout at the works council elections (89 per cent) with the number that said they voted in the disproportionate stratified random sample at Agrochemie AG (97.7 per cent).\(^{96}\) This difference can probably be explained in a number of ways. First, people more involved in industrial relations are more likely to vote than those who are uninvolved. Second, office staff and women, both of which groups are known to have less interest and tendency to vote,\(^{97}\) generally refused to be interviewed. Finally, it is possible that respondents who could not remember whether they voted responded positively since this is a more socially acceptable reply. All these factors would lead to an increased turnout in the sample. It would seem that had a rigorous simple random sample been used, the replies would have been more valid. A second test was applied by comparing membership in the Chemical Workers' Union at Agrochemie AG in the sample with the actual membership. In this case 90.4 per cent membership in the sample compared well with the actual level of 90 per cent. The bias due to the type of sample probably cancelled out due to increased levels of sampling from both management and trade union officers.

\(^{96}\) These are tests of concurrent validity. Black and Champion, \textit{op.cit.}, p.228ff.

The internal reliability of the Agrochemie AG survey seems generally to have been good. Thus general satisfaction with wage levels was very similar. (98) Similarly knowledge of the roles of the works council correlated highly with knowledge of the co-determination rights of the works council. (99) As far as can be assessed the Agrochemie AG survey which was carried out according to the same principles as the other studies was both valid and reliable.

Although interviewer errors are reduced when only one interviewer is involved in a study, variability can still cause discrepancies as a result of inconstant techniques. As the vast majority of the interviews were recorded on cassette tapes this could be checked for subsequently. Some variations were detected particularly when respondents were aggressive towards the researcher. However, such cases were very rare. At Agrochemie AG the median assessment of the interest of respondents in the survey was 1.78 on a scale of 1 (very interested) to 5 (impatient, wanted to break off interview). (100) This means the accuracy and willingness to response are likely to be of an acceptable level. (101)

Bias can be introduced by an interviewer into the investigation in a number of ways. (102) The author was careful to withhold his opinions

98. cf. Appendix 3, Table 4 - 72% and Table 46 - 75%.
99. cf. Appendix 3, Tables 31 and 41. Pearson's correlation test gave $r = 0.62$ which was significant (99.9% level).
100. cf. Appendix 3, Table 65.
102. cf. Ibid., p.379.
lest bias be introduced in this way. This was generally possible even in the case of more extended contact such as at Agrochemie AG.

Errors can also be introduced when recording data, either through mis-coding or inaccurate transcription. In a number of cases the tape recorder was run when filling in structured questionnaires and very few coding errors were subsequently detected. Those errors which were traced were unsystematic in nature. Furthermore, tapes provide a permanent record which can always be consulted again in case of doubt. In the case of computerised analysis, punching errors can occur. A variety of impossible codings did occur in the first run and these were traced. Since there is a far greater chance of a mis-punched code being inappropriate it can be assumed that the majority of such mispunches were detected. Even so, only 0.1% of punches were inaccurate and thus errors from this source would seem to be negligible.

The influence of terminology and sample size on the accuracy of the survey have been discussed above. A number of difficulties were experienced here, and the replies on Sozialleistungen must be treated with care. A number of procedural errors on the part of the interviewer were detected. On two occasions the statistical questionnaire (103) was omitted due to lack of concentration and disconcertion on the part of the interviewer. In addition it was necessary to omit questions occasionally due to their lack of applicability to the respondent or to a shortage of time. This was unfortunate but unavoidable.

103. cf. Appendix 2.1.2.
In conclusion it can be said that the main limitations to the study are imposed by the lack of generalisability of the data on workplace industrial relations. Data which was collected seems reasonably valid and reliable, although some errors were detected.

(iv) Conclusion.

The central working hypothesis is that the technical nature, the industrial organisation and the economic state of the chemical industry all have a significant influence on the practice of industrial relations in the chemical industry both in the United Kingdom and West Germany. Since certain of these features, especially the technical nature of the chemical industry, are not limited to any one particular country, there are a large number of similarities between industrial relations in the British and German chemical industries. The majority of differences which occur can be traced to the different traditions of industrial relations and the different political and economic developments in the two countries.

The study falls logically into a number of parts:

After an introduction which presents the research methods used, Part I describes and analyses labour relations in the German chemical industry. This analysis commences with a consideration of the development of labour relations in chemicals. The relevance of economic and tech-

104. There is considerable similarity between this hypothesis and that expounded by Verma, op.cit., p.7ff. However, it was developed independently as a result of this study. Only late in the investigation was Verma's thesis discovered as a result of a recently published bibliography. Of G.S. Bain and G.B. Woolven, A Bibliography of British Industrial Relations, Cambridge, 1979.
 technological factors as well as the organisational nature of the chemical industry emerge from this. The current economic state of the West German chemical industry, its organisational structure and the technological nature of the industry are then examined in greater detail. Collective bargaining and workplace industrial relations in the West German chemical industry are subsequently analysed in the light of these characteristics. Finally a summary of industrial relations in the industry is given.

Part II is an examination of industrial relations in the British chemical industry and a comparison with the situation in West Germany. The study is concluded by a comparative review of the major conclusions about the nature of industrial relations in the chemical industry.

Part III consists of a number of appendices covering the statistical results of the study and the questionnaires used. A bibliography of sources cited and works consulted ends the thesis.

An understanding of the background to present industrial relations in the German chemical industry is a pre-requisite to a detailed consideration of it and thus it is to this development that we now turn.
Part One - Industrial Relations in the West

German Chemical Industry
Chapter 2.

The development of industrial relations in the German chemical industry.

(i) Introduction - Economic background and the development of the chemical industry.

It is the aim of this chapter to show the relevance of certain historic features of German society for current industrial relations in the chemical industry.

According to Ralf Dahrendorf: "What did and did not occur at the time of industrialisation has determined above all else the evolution of German society since then". (1)

Thus we should consider the main characteristics of the German industrial revolution, and look at the subsequent economic, technological and political developments in Germany, referring particularly to the chemical industry.

In the same work, a classic analysis of the development of German society, Dahrendorf shows that the industrial revolution in Germany may be described as: "late, rapid and thorough". (2) It will be seen during the

1. Author's translation of: "was also in der Zeit der Industrialisierung geschehen und nicht geschehen ist, hat die Bildung der neueren deutschen Gesellschaft vor allem geprägt," Gesellschaft und Demokratie in Deutschland, München, 1965, p. 45.

course of this chapter that these characteristics are of great signifi-
cance to industrial relations from this time onwards and that the con-
sequences are still apparent today. Dahrendorf also identifies certain
other features of the German industrial revolution which are re-
lected in the modern chemical industry and its industrial relations.

One such feature is the size of economic unit, which was seen to be much
greater than in Great Britain. This has also been the case in the
German chemical industry since its rapid development from about 1870
onwards. The result was that by 1895 37% of all workers were employed
in plants with more than 200 people. Currently, of course, three out
of five of the world's largest chemical companies are based in West
Germany: Bayer AG, Badische Anilin- und Soda Fabrik AG (BASF) and
Hoechst AG.

Another characteristic of the German industrial revolution was state
involvement. Whilst there is little reference to direct state owner-
ship within the German chemical industry, it is likely that some of
the state mines manufactured chemicals from the coal they produced.
Certainly, the companies which prospered were privately owned and today

7. R. Dahrendorf, op.cit., p.49f.
this is reflected in the paucity of state involvement in the chemical industry.\(^{(9)}\)

A further feature of the period of industrialisation was the state socialist policies introduced by Bismarck during the 1870's and '80's which included sickness and accident insurance schemes, old age pensions as well as statutory regulation of the length of the working day and protective legislation for women and children.\(^{(10)}\) In the chemical industry, this social legislation was the basis on which rested extraordinarily wide welfare services. A striking feature of these services was the provision of cheap company housing.\(^{(11)}\) This paternalistic style of management is still found today in the larger German chemical companies and seems to have a significant influence on the attitudes of employees in these companies.\(^{(12)}\) Further mention will be made of this important feature of industrial relations in the German chemical industry elsewhere in the study.

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9. Veba AG is 43.75 per cent owned by the state, and it has some subsidiary companies which operate within the chemical and oil sectors, Veba Geschäftsberichte 77 and of. Manfred Krüper, "Veba Konzern jetzt massgeschneidert?", Gewerkschaftliche Umschau (Zeitschrift für die Funktionäre der IG Chemie-Papier-Keramik), Nr.4, 1978, pp.14-17.


11. L.F. Haber, 1958, op.cit., p.249f. One reason not mentioned by Haber was that this housing and the other services were often needed since several companies built their works on green-site locations with no facilities. Interview CM 12, Nov.'78.

12. W. Dzielak et al., op.cit., p.268ff. A recent example of this philosophy can be found in: Erhard Bouillon, Betriebliche Sozialpolitik in unserer Zeit, Grundsätzliches zur Sozialpolitik bei Hoechst, special publication for Hoechst AG without date but 1978.
Social legislation, paternalistic attitudes and welfare services seem to have had supplementary effects around the turn of the century. Working conditions appear to have been far superior and thus more healthy in Germany than in Britain at this time. An interesting contrast is provided by the vivid description in Gill et al. of the appalling working conditions in the British chemical industry just a few years earlier. Another consequence was that there were no trade unions in the large German dyestuff factories at this point of time. The reasons for this would seem to be management resistance together with reasonable welfare services.

The rapid growth of the German economy and in particular of the chemical industry at the end of the nineteenth century has been well summarised by Haber:

"Germany's economic development in the last thirty years of the nineteenth century was extraordinarily rapid and by the end of the period its industrial structure was far more powerful than that of France. Chemicals provide a striking illustration of this change. On the eve of the Franco-Prussian war, German chemical manufacture in size as well as technical ability lagged behind French. Barely a generation later the roles were reversed. The production of heavy chemicals was the first to feel the effects of the striking transformation in the country's economy."

Not only did industrial growth stimulate the heavy chemical industry,

13. A.F. Anderson "Regulations of ... Occupations in Factories ... in European Countries", from Dangerous Trades, edited Sir Thomas Oliver, 1902 cited in L.F. Haber, 1958, op.cit., p.234.
16. The development of the trade union movement in Germany is discussed in more detail later in this chapter.
17. L.F. Haber, 1958, op.cit., p.121.
for acids and alkalis as well as other chemicals are important to in-
dustrial production. In addition, the chemical industry itself generated
a requirement for a vast amount of chemicals used to synthetise dyestuffs
and fertilizers. The rapid growth in population\(^{18}\) with its requirements
for clothing and food provided the stimulus for the production of these
substances.

Such conditions were not unique to Germany, however, and the reasons for
the meteoric rise of the German dyestuffs industry,\(^{19}\) should be con-
sidered, especially since synthetic dyes were a British invention.\(^{20}\)

The reason for the success of the German chemical industry at this time
was the fortunate co-existance of a number of factors. One such factor
was the extremely close relations between the universities and industry,
which resulted in the provision for industry of large numbers of highly
trained chemists.\(^{21}\) This was necessary since even at this stage the
importance of research had been recognised by the chemical industry.\(^{22}\)
The numbers and quality of the chemists was not the sole reason for
success. Managerial and financial ability, aided by generous depreciation
provisions were also important.\(^{23}\) Furthermore, the late development of


\(^{19}\) In 1881 German dyestuffs production amounted for half of world
production and by 1900 it represented 80-90 per cont. L.F. Haber,

(1st Reprint), p.16. Bob Edwards blames the lack of British initiative
in developing the chemical industry further in Britain on the profit
orientation of the owners of E. Edwards, *Chemicals: Servant or
Master?*, London, 1945, passim.


\(^{22}\) Reuben and Burstall, *op.cit.*, p.16.

the German chemical industry meant that it was more able to make use of the newer technology which became available at this time. Instead, for example, of being plagued by the use of the Leblanc process for the production of sodium carbonate it was able to use the Solvay ammonia-soda process which has been described as the first continuous process to be used in the chemical industry. (24)

Finally, the geography and natural resources of Germany were also important factors. Waterways and railways provided good communications, fuel was cheap and coal was available in large amounts as an essential raw material in the production of dyestuffs, and other chemicals. There were also abundant salt deposits between the Elbe and Weser and in the Neckar Valley. (25)

Much has been said then about the rapid expansion of the German chemical industry at the end of the nineteenth century. What did this expansion actually mean, though, in terms of the number of employees in the industry? Within twenty years of 1875 employment in the chemical industry had increased by 120 per cent to 115,000 and by 1913 it had more than doubled again to 277,000. (26) BASF, to give another example, had increased in size from 520 employees in 1870 to 6,711 by 1900. (27)

26. Dzielak *et al.*, *op.cit.*, p.52. Whilst Haber agrees with the first figure, he puts employment in 1913 at 180,000, or 210,000, depending on the definition of the industry. L.F. Haber, 1971, *op.cit.*, p.108. Nevertheless, the increase remains impressive.
This means, of course, that throughout this period of time the chemical industry had an enormous requirement for manpower. This is therefore one reason for the relatively good wages and conditions prevalent in the chemical industry at this time. They were simply necessary in order to attract sufficient labour; and since the chemical industry had good profit rates at this time it was able to afford these measures. (28)

Although conditions of labour shortage are traditionally favourable for trade unions, there is no evidence that the Factory Workers' Union (29) was able to take advantage of the situation.

The German chemical industry continued to expand up to and throughout the First World War. (30) The superiority of the chemical expertise in Germany at this time was reflected in the development of the Haber-Bosch process for the synthesis of ammonia. This process was the first modern chemical process (31) and enabled Germany to continue fighting for much longer than would have been possible without access to the nitrogen thus made available. (32)

During the war chemical production was, of course, subordinated to the war effort. This occurred particularly swiftly and smoothly in Germany. (33) After the war the political situation was unstable for some time (34) and

28. Dzielak et al., op.cit., p.64.
29. Verband der Fabrikerbeiter Deutschlands, this was the trade union which attempted to organise workers in the chemical industry.
30. For example, exports of chemical tripled between 1900 and 1913. L.F. Haber, 1971, op.cit., p.108.
31. Reuben and Burstall, op.cit., p.17.
33. Ibid., pp.184-217 and 230.
the chemical industry was also affected by the turbulence of the times, as will be discussed below. This period of insecurity and intense economic competition led finally in 1925 to the formation of IG Farbenindustrie AG (IG Farben). Tendencies to form cartels had, however, been present in the German chemical industry since shortly after the turn of the century. (35) IG Farben was at this time the largest chemical company in the world, being the amalgamation of eight major companies, having a starting capital of £22.7 million (36) and employing 88100 people on 1st January 1927. (37)

Amongst the many other developments in the field of industrial relations during this period of time (38) was the establishment of trade unionism and an increase in the importance of collective bargaining. Both these developments are discussed in detail later in this chapter.

Perhaps one of the best known features of the Weimar period of German history is the raging inflation which had the result of devaluing money to the extent that a loaf of bread cost millions of marks. (39) A few years later Germany was smitten, along with many industrial nations,

35. This whole process is discussed in great detail in L.F. Haber, 1971, op.cit.
36. Ibid., p.284.
37. Ibid., p.380.
38. Such as, for example, the introduction of works council legislation, government recognition of trade unions and the close association of trade unions with the whole Weimar state apparatus. There might, of course, be causal links between these occurrences and the acceptance of trade unionism in the chemical industry. cf. R. Dahrendorf, op.cit., p.209ff.
by extremely high levels of unemployment.\(^{40}\) Although one author has stated that the chemical industry was not affected to the same extent as the heavy industries, he also shows that IG Farben made 46,000 employees (more than 40 per cent) redundant between 1928 and 1931 and that in 1932, 95 per cent of the remaining employees were working short time.\(^{41}\)

Whilst working in the West German chemical industry the author gained the impression that the experience of high inflation and severe unemployment had left a permanent scar on the memories of fellow employees.\(^{42}\) They seemed to be reluctant to engage in any activity which might cause inflation or unemployment. This attitude seems also to have been mirrored in the moderation of German trade unions at the slightest indication of economic recession. These hypotheses were tested in a limited way in the course of the case study investigation at Agrochemie AG. When asked to select the four main priorities\(^{43}\) for trade union action 59 per cent of respondents in the works sample included protection from unemployment and 42 per cent included maintenance of price stability. These results, whilst limited in their applicability, might seem to suggest that experiences gained during the Weimar Republic are still of significance today in the West German chemical industry.

\(^{40}\) In the winters of 1931 and 1932 unemployment was estimated as effectively 7 million. G. Stolper, K. Häuser, K. Borchardt, Deutsche Wirtschaft seit 1870., Tubingen, 1964, p.139.


\(^{42}\) This idea is also to be found in F. Vogl, German Business after the Economic Miracle, London and Basingstoke, 1975, p.5f.

\(^{43}\) From a possible 14. of Appendix 2, Question 25, and Appendix 3, Table 29.
Hitler's rise to power has been studied in detail and this is not the place for a discussion of it. However, the failure of the trade union movement and its resultant dissolution are of significance and are discussed below. The chemical industry did, nevertheless, have some part to play in the rise of Hitler, and since the present separation of Germany into two states might be seen as a direct consequence of Hitler's "Third Reich" it is worth noting some of the main links between the chemical industry and the National Socialist movement.

IG Farben was one of the many large industrial companies to provide electoral funds for the National Socialists and after Hitler gained power, the connections remained close. IG Farben was heavily involved in the development of synthetics to prepare Germany for war and this gave her a virtual monopoly of those areas later to become the major growth sectors of the chemical industry. The results of this can be seen in the present strength of those companies formed from the decartelised IG Farben.

Among the consequences of defeat for the West German chemical industry was the loss of a large number of production sites, including the enormous works at Leuna, since they were in the Russian Zone. The

44. For example, cf. R. Dahrendorf, op. cit., p.415ff.
46. A. Leisewitz, on. cit., p.487ff.
47. J. Räuschel, op. cit., p.22.
level of damage to the chemical industry as a result of the war remains uncertain. One report claims that it severely restricted production. Another states that 90% of plant at Ludwigshafen lay in ruins. However, the overall extent of damage to production capacity has not been established accurately and discussions have tended to suggest that it was not as great as many authorities have stated, particularly on the large sites. Quite why Allied Bomber Command does not seem to have made these enormous production sites priority targets is not clear, but suggestions of international pressure by affiliated companies have been made.

Although the senior IG Farben management were arrested on charges of war crimes, many of these managers soon took their "rightful" places in the successor companies. In this instance, the war had little influence on the careers of men involved in National Socialist war crimes.

During the course of research a claim occasionally made by some respondents was that the "Third Reich" and the experience of defeat had removed the class barriers in Germany and that this was the reason for the lack of industrial conflict since the war. However, as it has been shown that the German trade union movement has adopted very similar policies to those in Weimar, this seems unlikely. A more likely

49. J. Rauschel, op.cit., p.20.
50. of. Ibid., p.23ff and Reuben and Burstall, op.cit., p.132ff.
explanation can be found in the entirely different economic and political situation in West Germany as opposed to the Weimar period. \(^{52}\)

One reason occasionally voiced in this country for the "Economic Miracle"\(^{53}\) experienced by West Germany after the Second World War was the opportune necessity to build new production plants at a time when technological developments, some the result of the war, had made much existing plant obsolescent. As far as the chemical industry is concerned, this argument seems to have some basis in fact. Although the American chemical industry had moved towards the use of hydrocarbon-based organic chemicals during the 1930's, Germany, bound by policies of national self-sufficiency did not follow suit until after the war. \(^{54}\)

Therefore the reconstruction of the German chemical industry coincided with the change in basic raw materials for organic chemicals from coal to oil and natural gas. At the same time the latest developments in process technology could be incorporated so that the plant was both modern and more competitive. \(^{55}\)

The advantages of oil and natural gas as raw materials for the organic chemical industry are considerable. Since they are fluids it is possible to use them in continuous process plants both as raw materials and as a

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52. For example, the proximity of a communist state, severe living conditions and a rapid economic recovery thereafter could all have lowered the level of industrial action.


source of energy. In addition, many chemical compounds such as paraffins and olefines, which may be regarded as the basic building blocks for a large number of organic substances and polymers, are far more accessible via cracking than they were from the liquefication and gasification of coal.\textsuperscript{(56)} Further advantages also exist since continuous production systems generally use up less energy than batch processes.\textsuperscript{(57)} Continuous reactions also have lower labour costs, are more easily automated, and indispensable for large scale reactions.\textsuperscript{(58)} In fact, the economies of scale of some chemical processes are quite staggering.\textsuperscript{(59)}

The consequences of these factors were that the West German chemical industry which developed after the war was modern, tended to have large plants, especially as time passed, and to employ continuous production systems which were increasingly more automated.\textsuperscript{(60)}

Reference has already been made to the decartelisation of IG Farben by the Allied Powers after the defeat of National Socialist Germany. This action was by no means immediate, however. The Allies took control of

\begin{itemize}
\item \textsuperscript{56} Winnacker/Biener, Grundzüge des Chemischen Technik, München, 1974, p.7.
\item \textsuperscript{57} Dzielak et al., op.cit., p.57.
\item \textsuperscript{58} Reuben and Burstall, op.cit., p.407f. Reuben and Burstall do neglect to mention, however, that shift work is required, often at a high social cost.
\item \textsuperscript{59} cf. Ibid., p.56ff.
\item \textsuperscript{60} The intention is not, however, to imply that small scale batch processes do not exist; indeed, they are eminently suitable for particular reactions, \textit{e.g.} slow reactions. Ibid., p.407f.
\end{itemize}
the company in 1945, (61) but this did not prevent shares in IG Farben being traded on the open market after the war. (62) Originally it had been planned to nationalise IG Farben and to dismantle a large number of plants which produced chemicals necessary for war. As it transpired, neither came about. Only a very small number of pieces of equipment were removed from the Ludwigshafen works, for example. (63) Not until 1953 did the Western Allies decide what to do with that portion of IG Farben under their control. (64) IG Farben was split up into twelve autonomous companies, (65) the most important of which are the three mammoth concerns BASF, Bayer and Hoechst together with Chemische Werke Hüls AG and Casella Farbwerke Mainkur AG. These companies had approximately the structure of the firms which founded IG Farben. This action could in fact be conceived as a blessing for the German economy. (66)

Ever since the rapid growth of the dye manufacturing companies at the end of the nineteenth century tendencies towards centralisation within the German chemical industry have been apparent. It might be thought that the Allied Administration had wished to prevent such a concentration of power within the chemical industry from recurring. However, the

61. E. Schmidt, Die Verhinderte Neuordnung 1945-1952, Frankfurt and Köln, 1970, p.54. Schmidt gives a very good account of the re-establishment of the old order, with particular reference to the coal and steel industries. Many parallels between the development in chemicals and these industries seem to exist.
64. G. Stolper et al., op.cit., p.226.
66. G. Stolper et al., op.cit., p.226f.
"big three" German chemical companies have gone from strength to strength. Whilst it was estimated that IG Farben produced 57 per cent of chemicals in Germany in 1938, in recent years about one third of chemical turnover has been directly attributable to Bayer, BASF and Hoechst. Lack of appropriate statistical data makes a more accurate estimation of the importance of these companies difficult, but if account is taken of internal transactions within the concerns, approximately 50 per cent of chemical turnover might be ascribed to these three companies. Once more the German chemical industry is amongst the most powerful in the world, with Hoechst, BASF and Bayer having achieved the top three places in the world league of chemical companies in 1978.

Charles Levinson, the General Secretary of the International Federation of Chemical and General Workers' Unions (ICF) has drawn a comparison between the process of centralisation and concentration within the West German chemical industry and the development of IG Farben:

"The movement towards concentration in the West German chemical industry is perhaps most impressive. It almost feels as if one has been returned to the time before the Second World War when the IG Farben concern dominated the scene. The three successor companies of this mammoth organisation ... have almost achieved integration to a degree which de facto, resembles an industrial empire of the type of IG Farben ..." (72)

69. of, Reuben and Burstall, op.cit., p.121ff.
71. of, Gill et al., op.cit., p.218ff.
The consequences of the high concentration of the chemical industry for its industrial relations will be discussed in more detail below. The importance of Hoechst, Bayer and BASF for industrial relations, particularly at supra-plant levels can hardly be stressed sufficiently, however.

Post-war labour relations in the German chemical industry have occurred against the backdrop of a remarkable economic development. Immediately after the war living conditions were severe and much reconstruction was required before factories could be reopened and unemployment reduced. (73) This resulted in co-operation between trade unionists, works councillors and the authorities. (74)

Nevertheless chemical production reached pre-war levels in 1949 (75) and it continued to exhibit meteoric growth rates with only minor recessions for the next twenty years. (76) This development might best be described as "growth with structural changes". (77) The actual extent of this growth is demonstrated in Table 2.1 and its great magnitude is immediately apparent.

73. The general situation is described in G. Stolper et al., op. cit., p.234ff. Schmidt gives an account of the demonstrations and strikes which occurred in protest against the poor conditions, cf. E. Schmidt, op. cit., p.134ff.

74. Ibid., passim and J. Rauschel, op. cit., p.20.


TABLE 2.1

The West German Chemical Industry 1950-1969: Basic Economic Data

<table>
<thead>
<tr>
<th></th>
<th>1950</th>
<th>1961</th>
<th>1969</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turnover</td>
<td>Mill DM</td>
<td>7150</td>
<td>24000</td>
</tr>
<tr>
<td>Employees</td>
<td>1000</td>
<td>286</td>
<td>483</td>
</tr>
<tr>
<td>Investment</td>
<td>Mill DM</td>
<td>410</td>
<td>2657</td>
</tr>
<tr>
<td>Export</td>
<td>Mill DM</td>
<td>1080</td>
<td>6490</td>
</tr>
<tr>
<td>Export as % turnover</td>
<td></td>
<td>15.2</td>
<td>27.0</td>
</tr>
<tr>
<td>Export as % total exports</td>
<td></td>
<td>12.9</td>
<td>12.7</td>
</tr>
<tr>
<td>Import</td>
<td>Mill DM</td>
<td>420</td>
<td>2690</td>
</tr>
<tr>
<td>Import as % total imports</td>
<td></td>
<td>3.7</td>
<td>6.1</td>
</tr>
</tbody>
</table>

Between 1950 and 1969 turnover increased by 650 per cent, an annual rate more than 10 per cent and as employment only doubled over this time, there was a correspondingly great increase in productivity. The chemical industry soon became an important exporter and has always had a positive balance of payments.

The increase in productivity is partly reflected in the high level of investments in the chemical industry, since new and bigger plant was constantly required. Investment was also required due to the structural changes within the industry; between 1953 and 1967 the consumption of plastics and chemical fibres which are based on organic intermediates increased by 1077 per cent and 111 per cent respectively. (79)

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79. RKW, Sieben Berichte, Frankfurt, 1970, p.70. The change of importance between branches is difficult to show since most data is normally published in terms of value, cf. W. Munde, op.cit., p.537. This data does not reflect the remarkable drop in the cost of chemicals and plastics over this period of time as a result of efficiencies of scale. cf. Ibid., p.538; Chemiewirtschaft in Zahlen 1976, p.78f; Reuben and Burstall, op.cit., p.56ff and Dzielak et al., p.54f.
The consequence of these developments has been to increase the capital intensity of the industry, which means that labour costs have been less significant than in many other industries. In general, therefore, the economic climate led to a situation where wage claims could be met fairly easily by the chemical industry and this doubtless had a great influence on the climate of industrial relations.

These factors, such as the need to increase scale in order to be able to produce economically and the cost of such investments have further contributed to the growth in strength of the larger chemical companies.

The post-war development of the chemical industry until the end of the 1960's might be summarised as establishing a situation in which the major chemical producers dominated the industry with successful economic growth influencing the climate of industrial relations. In this way, the trend, which was begun with the German industrial revolution, for a highly centralised industry able to take advantage of recent technological advantages due to its late start has continued through to the present day.

This has had a significant influence on the economic development and the industrial relations of the German chemical industry which has experienced a century of almost continuous rapid growth interrupted only briefly.

81. cf. Dzielsk et al., p.93ff and 537. Furthermore, the general labour shortage through the later part of this period made it necessary for many companies to pay wages which were far in excess of the agreed rates.
during the world economic crisis and for a short time after the Second World War. Such rapid growth has required high investment levels and much expenditure on research as well as an almost constant requirement for additional manpower. Given the technological developments in the chemical industry which have led to a capital intensive industry with many continuous production processes and a fairly high level of automation, wages and conditions in the industry have generally been above average.

State socialist legislation in the nineteenth century and management's progressive paternalistic attitudes have also influenced wage levels and resulted in a wide range of company welfare services, particularly in the larger chemical companies. One of the consequences of this has been a high level of identification of many employees with their companies. This, together with initial resistance by management hindered the development of trade unionism within the chemical industry. The development of trade unionism to its present state will now be discussed.

(ii) Trade unionism.

It might seem paradoxical to claim, despite the fact that the Industrial Union of Chemical, Paper and Ceramics Workers\(^{82}\) is the third largest in

\[\text{Industriegewerkschaft Chemie-Papier-Keramik, for simplicity's sake this union will be known hereafter as the "Chemical Workers' Union". This trade union does represent members in a wide number of industries. However, throughout the course of this study generalisations will be made about the union based on data from within the chemical industry. This does not imply that the situation in all industries is the same as in the chemical industry.}\]
the German Trade Union Confederation, and although in 1975 this same trade union had an income of over DM 77 million, that in recent years it has been unable to meet the majority of challenges made by the chemical employers, particularly as far as collective bargaining is concerned. How did this state of affairs arise? It is the aim of this section to show that the reasons for this may be traced partly to the development of the trade union movement in general and partly to the structure of the chemical industry.

Trade union weakness is certainly not new to Germany. Indeed, it might be traced back to the very beginnings of trade unionism during the latter half of the nineteenth century although the origins of this weakness have not all survived through to the present day.

One of the initial causes of weakness in the German trade union movement was the formation of sectional unions which caused fragmentation into various ideological factions. It can be argued that the timing of the


85. Collective bargaining is analysed in great detail in Chapter 4.

86. This is by no means a deterministic statement and should not be taken to imply that this development was unavoidable.
industrial revolution in Germany was one of the factors which led to this development. One of the characteristics of the German industrial revolution was its late occurrence and this is significant because political ideologies had developed further and so exerted a great influence on the nascent trade unions.\(^{87}\) The result of this influence was fragmentation into sectional unions based on three main ideologies.\(^{88}\) The German General Workers' Association\(^{89}\) founded in 1863 was primarily influenced by the "social-democratic reformism" of Lassalle.\(^{90}\) The Hirsch-Dümcker trade unions were formed along liberal lines with the aim of correcting capitalism.\(^{91}\) In addition Christian trade unions were also formed based on christian socialist teachings.\(^{92}\) This fragmentation of trade unions led to a fundamental weakness of the movement in Germany for many years and was partly responsible for their failure to resist national socialism.\(^{93}\)

Within the chemical industry management attitudes which were resistant to trade unions prevented successful organisation before Bismarck's anti-socialist legislation effectively disrupted the trade union movement for twelve years from 1878.\(^{94}\) The repeal of this legislation

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89. Allgemeiner Deutscher Arbeiterverein.

90. H. Grebing, op.cit., p.34ff and especially p.42. Marx and Engels were of less direct influence to the German labour movement, Ibid., p.49.

91. B. Otto, op.cit., p.56f.

92. For a concise summary of this movement cf. H. Grebing, op.cit., pp.192-199.

93. An interesting account of this struggle may be found in G. Beier, Das Lehrstück vom 1. und 2. Mai 1933, Frankfurt and Köln, 1975.

94. H. Limmer, op.cit., p.28.
led to the establishment of the Free Trade Unions\(^\text{95}\) amongst which was the Factory Workers' Union\(^\text{96}\) which attempted to organise workers in the chemical industry.

From this time onwards, as far as the Continent was concerned "Germany witnessed the most violent struggles ... The first objective of the leaders (of the unions, author) was to obtain recognition, the second to negotiate collective agreements. The obstacles were considerable: the chemical companies were large, prosperous, concerted in their labour policy, and, not least, supplemented social legislation by extensive health and housing schemes. They also paid well".\(^\text{97}\) In general the union was unsuccessful, at least as far as bargaining rights were concerned, for by 1907 the Factory Workers' Union only had agreements with 18 chemical companies.\(^\text{98}\) A series of strikes at various Bayer works were unsuccessful, Hoechst resisted unions entirely and BASF formed a company union.\(^\text{99}\)

Before the First World War trade unionism had failed to establish itself to any degree in the chemical industry as a result mainly of co-ordinated

95. So called because of their freedom from Christian ideology, their full title was the General Commission of German Trade Unions (Generalkommission der Gewerkschaften Deutschlands). cf. H.Grebing, op.cit., p.68.


97. L.F. Haber, 1971, op.cit., p.393. Haber also says that these amenities caused resentment since they were felt to be a substitute for wages.

98. Verband der Fabrikarbeiter Deutschlands, Festschrift zur Eingehung an die Gründung und der 40 Jährigen Kampf, no place (Hannover), no date (1930), p.168.

management resistance and clever paternalistic policies. (100)

The outbreak of the Great War saw an outbreak of nationalistic fervour in Germany which also encompassed the labour movement. (101) Trade union leaders and social democrats agreed to support the war effort and they became increasingly involved in running the war economy. (102) One result of this policy was the first legal recognition of trade unions and the representatives of workers as part of the Auxiliary Service Act in 1916. (103) At the end of the war defeat and other factors such as hunger and disillusionment with their leaders caused the so-called November Revolution to break out. (104)

The revolutionary situation and sudden influence of the Social Democrats in government forced the employers suddenly to make many concessions which they had long been resisting, such as the right to organise workers, the dissolution of company unions amongst many others. (105)

100. Since no definitive history of trade unionism in the German chemical industry has been written, it is not clear what the situation was as far as Christian or Hirsch-Duncker unions are concerned.

101. A nationalistic element had long existed in trade union ideology which can be traced back to Lassalle (cf. H. Grebing, op.cit., p.37) and remnants of this might today be found in the willingness to moderate wage demands for the sake of the national economy.

102. A very interesting, if highly critical analysis of the German trade unions in the First World War may be found in K. Pohl and F. Werther, "Die freien Gewerkschaften im ersten Weltkrieg", in F. Deppe et al., op.cit., pp.94-145.

103. H. Limmer, op.cit., p.42. Carl Duisberg, the managing director of Bayer was heavily involved in the formulation of this act although he seems to have been against such extensive concessions to the unions. Pohl and Werther, op.cit., p.123ff. For an analysis of the influence of this act in a large chemical works cf. Curt Duisberg, Die Arbeiterschaft der chemischen Grossindustrie, Berlin, 1921, pp.74-79.


105. cf. H. Limmer, op.cit., p.51 for a full list.
This "gave the trade unions all that they had demanded for decades ... but it robbed them of every chance in intervening in the structure of the economy". (106)

The major consequence of the recognition of the trade unions by employers and state was a massive growth in membership, as demonstrated in the table below.

**TABLE 2.2 (107)**

<table>
<thead>
<tr>
<th>Year</th>
<th>ADGB</th>
<th>Chr.Unions</th>
<th>H.-D. Unions</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1918</td>
<td>1665</td>
<td>405</td>
<td>113</td>
<td>2183</td>
</tr>
<tr>
<td>1919</td>
<td>5479</td>
<td>858</td>
<td>190</td>
<td>6527</td>
</tr>
<tr>
<td>1920</td>
<td>7890</td>
<td>1077</td>
<td>226</td>
<td>9193</td>
</tr>
</tbody>
</table>

The trade unions had suddenly gained the power which they had for so long lacked and as might be expected this led to a number of bitter conflicts. Strikes or lock-outs occurred at all the four major chemical sites in the early twenties and at Leuna a strike was only broken by calling in the troops. As a result large numbers of strikers were killed or wounded.

The climax of this wave of strikes took place in Ludwigshafen in 1924. The major cause was defence of the eight hour day. Once again the troops were called in; however on this occasion in vain, despite the killing of

106. H. Grebing, op. cit., p.102.
a number of strikers. The strike lasted for nine weeks but finally collapsed due to lack of funds and the principle of the eight hour day was lost. Despite the defeat of the union, IG Farben worked with it, accepting collective bargaining but the cost for the union had been high. (108)

Despite a rapid growth in trade union membership (109) and an increase in militancy which perhaps reflected the political climate of the times, the unions in the chemical industry were unable to defend their rights. This reflected the strength of the chemical employers who displayed considerable resolution in the face of strike action as evidenced by a willingness to use lock-outs or force to win the disputes. It is likely that their policy was also highly centralized or even co-ordinated given the close associations which existed between the companies prior to the formation of IG Farben. Compared to the employers, the union was weak and ineffectual — a situation which seems remarkably similar to the present state of affairs. (110)

The trade unions were weakened considerably during the slump through loss of members and high unemployment. (111) The trade union leadership totally


109. In fact, by 1924 membership had started to fall again partly as a result of disillusionment amongst the rank and file due to the inability of the unions to guarantee the wage levels of their members during a time of galloping inflation. cf. H. Grebing, op. cit., p.128f.

110. See the discussion below and in the chapter on collective bargaining.

111. Additional fragmentation of the trade unions also occurred during this time with the appearance of communist and National Socialist unions. C. Seifert "Die deutsche Gerwerkschaftsbewegung in der Weimarer Republik", in F. Deppe et al., op. cit., p.191ff and H.-G. Schumann, op. cit., p.35ff.
failed to appreciate the gravity of the rise of National Socialism; they were willing to sacrifice all their principles to try to salvage the organisation, but even this dubious aim eluded them. On the 2nd May 1933 Hitler dissolved the Free Trade unions, smashing the organisation and arresting their leaders. As far as Germany was concerned open trade union work was finished for twelve years.\(^{(112)}\)

The reasons for the failure of the unions might be summarised as weakness caused by a fragmented movement, poor leadership and severe economic conditions. During the long years of exile and imprisonment suffered by many trade union leaders much thought was given to the reasons for failure and it was resolved to try to eliminate the causes of this weakness once the war was over.\(^{(113)}\) The success of these plans and the effect this had on trade unionism in the chemical industry is considered at this juncture.

The Allies decided initially to let the trade unions develop in the way that the workers wanted, but soon placed restrictions on the scope of organisation. To begin with unions were only permitted to organise within the locality and later this was extended to zonal level.\(^{(114)}\)


The early history of the Chemical Workers' Union as described by respondents (115) seems to conform with the general pattern of development. Immediate concerns were to overcome the severe living conditions and start production again. Only after the currency reform in 1948 was there any interest in collective bargaining.

Despite their original statements to the contrary the Allies soon began actively to influence the future shape of the German trade union movement. Pressure was exerted on leaders to adopt a centralised confederation of industrial unions as opposed to a single trade union covering all employees which it was feared might become too powerful. Eventually the trade unions bowed to this pressure. (116)

After the establishment of the Federal Republic in 1949 the German Trade Union Confederation was formed. (117) This required reorganisation and rationalisation of a large number of local and zonal unions to conform with the principles of the new organisation. (118) However, the sectionalism so long a feature of German trade unions could not be eliminated

115. Especially Interview FTO 6, Aug. '77 with a respondent who had become a union official in September 1945.
116. E. Schmidt, op.cit., p.36ff. British trade unionists actively supported the Allies in these plans and recommended that to Eickler and others to adopt the system of industrial unionism.
117. cf. Ibid., p.168ff. For current membership figures see Appendix 1 Table 1.
118. These principles are:

1. An industrial union should only represent the employees in one particular branch of industry, such as the railways. (However, in practice several industries similar in nature are often covered.)
2. Unity, which means that each factory should only have one union representing its employees, whether wage earners, staff or civil servants.
3. The unions are independent of political parties or confession.
4. The unions are fully autonomous and control their own finances.
quite so easily. Immediately after the war a white-collar union was formed in Hamburg and in 1949 this became the German Salaried Staff Union.\textsuperscript{(119)} A Christian Trade Union Confederation was set up again in 1955\textsuperscript{(120)} and a German Civil Servants' Association\textsuperscript{(121)} also exists. In manufacturing industry none of these organisations has gained any particular significance, however. It would seem, apparently, that the German trade union movement has de jure at last achieved unity\textsuperscript{(122)} and it might be assumed since one of the major causes of weakness of the trade unions before 1933 has been removed, that the present organisation would be particularly strong. Although it might be argued that this holds for the Metalworkers' Union\textsuperscript{(123)} it is certainly less true in the case of the Chemical Workers' Union.

What organisational structure does the Chemical Workers' Union have and what relevance does this organisation have on the union's policy and

\begin{itemize}
\item \textsuperscript{119} Deutsche Angestelltengewerkschaft cf. B. Otto, op.cit., p.98ff.
\item \textsuperscript{120} Christlicher Gewerkschaftsbund Deutschlands, Ibid., p.113, cf. also H. Crebing, op.cit., p.196ff.
\item \textsuperscript{121} Deutscher Beam tenbund, cf. K. von Beyme, Gewerkschaften und Arbeitsbeziehungen in kapitalistischen Ländern, München, 1977, p.46f. Membership figures for these three organisations can be found in Appendix 1 Table 1.
\item \textsuperscript{122} For a discussion of which form of trade union organisation is likely to develop under specific conditions cf. Ibid., p.38ff and for West Germany especially, p.43.
\end{itemize}
Figure 2.1  
The Organisational Structure of the Chemical Workers' Union (A)

A. Adapted from G3 72-75, p.248. Key: Elect

- Full-time Exec. Officers
- National Executive
- National Delegate Conference
- Union (B) Standing Committee
- Regional Committee
- Regional Delg. Conf.
- District Committee
- District Deleg. Conference
- Delegates
- Lay Officers
- Officers

Union Membership in Works and Factories

Numbers in brackets indicate the number of offices. For a full range of statistics on the Chemical Workers' Union cf. Appendix 1 Tables 2-9. Also, on the structure of the Chemical Workers' Union cf. Projektgruppe Gewerkschaftsforschung, Rahmenbedingungen der Tarifpolitik, Band 1, Gesamtwirtschaftliche Entwicklung und Organisation der Tarifparteien, Frankfurt/New York, 1979, pp.128-154.

B. Beirat. This committee has the function of permanent body to stand in for the National Delegate Conference and take any decisions normally made at the conference but which require immediate action and so cannot wait for the next conference. Examples of such action are changes in the Rule Book or elections to e.g. the NEC (Interview FTO 7, Aug.'77), and cf. Satzung 77, Para. 48.
effectiveness? A systematic representation of the Chemical Workers' Union may be found in Figure 2.1. It can be seen that it conforms to the usual structure of West German unions, with three main administrative levels: districts, regions and a head office which serves the full-time executive officers of the National Executive Committee (NEC).

The figure also illustrates the hierarchical system of delegatorial representation which exists in the union. It is apparent from this that the full-time officers of the NEC are quite remote from the membership on the shop floor. The position of these officers deserves further consideration since an analysis of their position provides a key to understanding many features of the Chemical Workers' Union and some of the reasons for its present weakness.

124. of H. Limmer, op.cit., p.77.
125. Verwaltungstellen of IG Chemie, Satzung 77, Paras 35-40 (cited hereafter as Satzung 77).
126. Bezirke, of Ibid., Paras 41-44.
127. Zentrale, based in Hannover.
128. Geschäftsführender Hauptvorstand, consisting of 8 officers, each responsible for a division of the union such as finance and personnel; women members; salaried staff members and social policies etc. of GB 72-75, p.7ff and Satzung 77, Para 47.
129. (Gesamt-) Hauptvorstand, consisting of another 20 lay officers, elected as are the full-time members of the committee at the National Delegate Conference. (Gewerkschaftstag). The full committee meets on average four or five times per year. (Interview FTO 16, Feb.'78), of. also GB 72-75, p.6f.
130. These officers will be known as 'National Executive Officers' (NEO's) from now on.
The position of the NEC and in particular of the National Executive Officers might best be characterised as "centralised power". (131)

There are two main components on this power: the influence exerted by the NEO's on collective bargaining and their control of the union apparatus. It is suggested here that there are two major reasons for the NEO's manoeuvring themselves into such a position. The first is a desire to increase their own power; the second, an attempt to impose a unitarian course on a trade union which, although formally unified, is in fact split along sectional and ideological lines. The idea of opposition within trade unions is not new (132) but it is contended that these schisms are merely the present day manifestation of the fragmentation which has so long been a feature of the trade union movement in Germany.

Although the collective bargaining system in the chemical industry is discussed in more detail elsewhere, the power of the NEO's in this system can be clearly demonstrated. Even before the annual collective bargaining round begins it is the practice for the NEO's to recommend

131. This analysis is based primarily on interviews and informal discussions with trade union officers but draws also on three works which deal with this particular question: Dzielak et al., op.cit., pp.111-133 which is also based on an empirical investigation; cf. also J. Bergmann et al., op.cit. p.270ff and H.D. Riesche, Zur Struktur und Funktion innergewerkschaftlicher Willensbildung auf Gewerkschaftstagen der IG Chemie-Papier-Keramik 1948-1966, unpublished Diplomarbeit, Frankfurt, 1968.

a suitable level of demands for the lay officers to debate.\(^{(133)}\) It is normal for the lay officers to follow those recommendations fairly closely.\(^{(134)}\) Until 1978 wage negotiations were usually conducted at regional level. However, there was a close co-ordination of policy between the NBO's and the various regional secretaries.\(^{(135)}\) From the mid 1960's this co-ordination steadily increased because the employers had begun to bargain in the various regions with what was effectively a single committee.\(^{(136)}\) Furthermore, since co-ordination failed badly on the union side in 1971 this resulted in a change in policy as a result of a motion passed at the National Delegate Conference the following year.\(^{(137)}\) However, although the NEC claimed in 1975 that it supported the principle of decentralised bargaining\(^{(138)}\) by 1978 they had been persuaded by the employers to bargain nationally.\(^{(139)}\) This had long been an aim of the


\(^{135}\) Bezirksleiter (Interview FTO 6, Aug.'77).


\(^{138}\) GB 1972-75, p.349ff.

Chemical Employers' Associations since this suits the highly centralised structure of the employers associations which are dominated by the major chemical companies.

A second indication of the position of the NEO's in collective bargaining may be obtained by considering joint conciliation procedure. In practice the NEO's always send a representative as part of the three man union team and it has been known for this representative to vote with the employers' representatives and so bring about a binding agreement.

Should conciliation fail then the NEC has still further opportunity to influence the course of action. The NEC can decide whether to make strike action dependent on a ballot in which case a 75 per cent vote in favour of action is required. The Chemical Workers' Union was the first union in West Germany to call industrial action without first

140. Interviews ER 1, Aug.'77; ER 4, Sep '77; ER 7, Sep '77 and ER 8, Sep '77.

141. cf. D.R. Ebsworth, "Arbitration in West Germany as illustrated by the Chemical Industry. Is this a continuation of bargaining?", unpublished paper given to the Federal Trust for Education and Research Seminar on "Conciliation and Arbitration in Britain and West Germany", held on 21.4.1978 at University of Surrey, Guildford, and an article which was mainly based on this paper: West Germany: The Importance of Arbitration", European Industrial Relations Review, (EIRR), No.55, August 1978, p.21f. See also the chapter on collective bargaining below. (Since then it has been decided that 'joint conciliation' is a more appropriate term than arbitration).

142. Interview FTO 17, Feb.'78 and Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.139f.

143. Satzung 77, Para 15.
balloting its members.\textsuperscript{(144)} In theory, the use of fast industrial action without prior warning might be effective but it requires a high union consciousness on the part of the members, and unfortunately for the Chemical Workers' Union this is lacking in the chemical industry. This was one of the contributory factors to the failure of the strike.

Furthermore, the NEC may decide not to hold a ballot even if a request is made by the collective bargaining committee,\textsuperscript{(145)} although to the author's knowledge this has never happened. The NEC can decide to end a strike at any time and no strike may be held without the permission of the NEC.\textsuperscript{(146)}

This power of the NEO's as the permanent representatives of the NEC has been seen to be considerable especially since 1978 when it has been heavily involved in wage negotiations as well. This development is discussed in greater detail below but union officers have expressed doubts in informal conversations whether there will ever be a return to decentralised bargaining.

Not only do the NEO's exert considerable influence on collective bargaining, they also effectively control the trade union apparatus. This

\textsuperscript{144} The employers claimed this strike was illegal and sued for damages. However, the claim was rejected. For the basis of the decision cf. "Arbeitsgericht Düsseldorf, Urteil von 21.8.1972 (7 Ca 1995/71)" as published in K. Hernekamp, Arbeitskampf, Aktuelle Dokumente, Berlin, 1975, 1974, p.67ff. For an analysis of the whole strike cf. Dzielak et al., op.cit.

\textsuperscript{145} Satzung 77, Para 16.

\textsuperscript{146} Ibid., Paras 20-21.
includes the appointment de facto of all full-time officers, control of finance, having a large dependent staff to support them, the drafting of union guidelines and control of union publications.

Bergmann et al. (147) have analysed the control of personnel appointments in four West German unions, one of which was the Chemical Workers Union. They state that:

"The NEC's exert a considerable influence on the selection of personnel and on the appointment of full-time officers at district and regional level. This provides the NEC's with important support for their political standpoints since the full-time officers determine the important everyday work of the organisation by putting the decisions of the National Delegate Conference and the NEC's instructions into practice". (148)

Although the Rule Book always gives these rights to the National Executive Committee, the full committee meets too irregularly (149) to exert close control. The NEO's on the other hand hold a meeting once a week. (150)

Therefore, although for accuracy the following argument will deal with the rights of the NEC, in practice much of this power is in the hands of the NEO's.

The influence of the NEC over the District Officials provides a good example. Should a full-time officer be needed in a district, then the

147. J. Bergmann et al., op.cit., p.282ff.
149. cf. Note 129 above.
150. Interview FTO 16, Feb.'78.
NEC suggests possible candidates in collaboration with the Regional Committee concerned. The officer is then elected by the District Committee and must be ratified by the next District Conference. This officer must, however, also be ratified by the NEC. Not only, then, does the NEC have the right to suggest candidates, it also has to ratify those appointed and thus has considerable influence on who becomes a full-time officer.\(^{(151)}\)

Although the full-time officer does not need to be re-elected,\(^{(152)}\) his contract of employment is with NEC, and he may only be dismissed by the NEC, normally after discussion with the District Committee, but if required, such as in the case where instant dismissal becomes necessary, on the decision of the NEC alone.\(^{(153)}\)

At regional level the influence of the NEC is extremely similar.\(^{(154)}\) Nevertheless, as will be seen below these powers of influence have not led to a monolithic body of officials, nor for that matter is the NEC monolithic in structure. There is, in fact, a considerable body of opposition to the policy of the NEC even amongst the full-time officers.

The authority of the NEC in personnel matters is not limited to the

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\(^{(151)}\) Satzung 77, Para 36.

\(^{(152)}\) The reason for this was to strengthen the position of these officers against local officials who might not want to follow the trade union policies. (Interview FTO 16, Feb. '78). For a history of the development of these powers cf. Dzielak et al., on cit., p.125f.

\(^{(153)}\) Satzung 77, Para 36.9. The regulations for fighting dismissal or expulsion from the union can be found in Ibid., Para 52. Informal discussions indicate that in 1979 even these regulations were tested by the NEC.

\(^{(154)}\) Ibid., Para 42.
full-time officers. Many lay posts, such as on district and regional committees, require the ratification of the incumbents by the NEC. Another example of the influence of the NEC may be found in its determination of trade union candidates for election to the supervisory boards of companies in the organisational area of the union.

Although such rights seem perfectly reasonable as these representatives may provide the union with much important information, the regulations for this are not to be found in the Rule Book, but in guidelines laid down by the NEC.

Such guidelines, a number of which exist covering various areas of work, are yet a further indication of the control of the organisation exercised by the NEC. These guidelines seem to have the power of rules, although they are passed by the NEC — in this probably the full NEC — and not the National Delegate Conference.

Undoubtedly much of the detailed preparation which goes into these guidelines is carried out by the large staff based at head office. These officials, several of whom have academic qualifications are appointed by the NEC. This staff increased rapidly in size over the period 1971 to

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155. For typical regulations cf. Ibid., Paras 36.3, 42.2 and 45.2.
156. According to the Co-determination Act 1976. Further discussion of this law may be found below. Also cf. D.J.F. Bendix, op.cit., p.120ff.
158. of. Satzung 77, p.88 for a recent, if not fully up-to-date list. This power is based on Ibid., Para 47.8(a).
159. of. Dzielak et al., op.cit., p.129.
to 1975, and although the ratio of head office officials to regional officials was only 1.86 to 1, (160) this change reflects perhaps the increase in authority of the NEC over this period.

Another manifestation of the power of the NEC is its control of the finances of the union. Such control is neither surprising nor unusual; however, the amount which the NEC controls is considerable. It seems the NEC controls all funds except the percentage of dues received by districts which in the Chemical Workers' Union varies from about 4 - 10% after all personnel, administrative and material costs have been covered. The amount varies according to the needs of the district, and limits are imposed in guidelines. Spending is watched over by lay and full-time auditors. (161)

Part of the funds controlled by the NEC are spent on publications. The trade union paper, which appears monthly, Gewerkschaftspost (Gp), has an edition of half a million, (162) and it is an instrument of the NEC. (163) The cost of publications in general was DM 9.2 million for the period 1972 to 1975, (164) but several other publications are produced, including

160. GB 1972-75, p.343. Bergmann et al. compared this ratio for four unions at the beginning of the 1970's. At this time the Chemical Workers' Union ratio was 1.35 to 1, compared with the Metalworkers' Union with a ratio of 3.6 to 1 and Building Workers' Union with 4.4 to 1. They explain this difference by the relative strength of the regional organisation in the Chemical Workers' Union. J. Bergmann et al., op.cit., p.289.

161. This information is based mainly on Interview FTO 6, Aug.'77. Also cf. J. Bergmann et al., op.cit., p.288.

162. R. Jühe, Gewerkschaftspresse: Organisation, Kosten, Ziele, Köln, 1977, p.15. (This publication comes from the Institut der deutschen Wirtschaft, an organisation run by the two main employers' organisations. cf. W. Simon, Macht und Herrschaft der Unternehmeverbände EBDI, BDA und DIHT, Köln, 1976, p.139ff.)

163. R. Jühe, op.cit., p.10. Also cf. Satzung 77, Para 59.

164. GB 1972-75, p.331.
one for officials (165) and one for works councillors. (166)

It has been seen, then, that the influence of the NEC, and particularly of the NEO's extends through collective bargaining to control of the trade union organisation, which is manifested by a great influence on the personnel policies of the unions, the use of guidelines, support from head office staff, publications and control of finances.

However, it would be naive to claim that there are no limits to the power of the NEC. The NEC is, of course, bound to the rules in the Rule Book and to the decisions of the National Delegate Conference, as well as the Union Standing Committee. (167) In addition, the NEO's are the only full-time officers in the union who are subject to periodical re-election. (168) At present this occurs every four years at the National Delegate Conference.

Despite this, as far as has been able to be established, no full-time member of the NEC who has stood for re-election has ever been rejected. In 1975, the last election, the percentage of voted cast for the eight candidates varied from 93 to 63 per cent. (169) It is interesting to note that the officer in charge of collective bargaining received the

165. Gewerkschaftliche Umschau (Bi-monthly).
166. Der Betriebsrat (monthly).
167. Satzung 77, Para 47.8(a).
168. Interview FTO 16, Feb.'78.
lowest vote, illustrating how unpopular actions in this area can cost votes.

As the NEC is well aware that it must face re-election, a consideration of the structure of delegates at National Conferences should provide some explanation of the policy of the NEC, since it knows where its support must come from. Approximately 25 per cent of delegates are full-time officers, (170) a large number of these being District Secretaries. (171) A further 63.1 per cent of delegates were works councillors as against only 5.8 per cent who were simply lay officers. (172) The occupational group "salaried staff" is also over-represented. In 1972, 31.7 per cent of delegates came from this group as compared with a membership in the union as a whole of 14.9 per cent. (173) In 1975 the respective figures were 36.1 per cent and 17.6 per cent. (174)

171. H.P. Riesche, op.cit., p.28.
172. This 63.1% may be subdivided as follows:
   31.0% Full-time works council chairmen.
   3.7% Part-time works council chairmen
   22.6% Full-time works councillors.
   5.8% Part-time works councillors.
   Own calculations from Protokoll 1976, p.224.
174. Own calculations, Protokoll 1976, p.224 and Projektgruppe Gewerkschaftsforschung, Band 1, 1979, op.cit., p.147. Despite, or because of the large number of salaried staff (see Chapter 3 below) in the chemical industry, neither the Chemical Workers' Union, nor the German Salaried Staff Union have been able to organise many white-collar workers. The number of members in this latter organisation was evidently so low that a national executive committee member was unwilling to state the level of membership in the chemical industry. (Interview FTO 13, Sep.'77). This being so, the consequences of the lack of a separate white-collar union may perhaps be found in intra-organisational conflict within the Chemical Workers' Union.
It is most necessary, therefore for the NEC to keep the works councillors happy. Whilst this group is also by no means monolithic in ideology, particularly works council chairmen and works councillors from the larger chemical works have a reputation of accepting the ideology of social partnership. (175) This is also generally true of salaried staff. This naturally has consequences for the unions' policies, and leads generally to moderation.

Although a detailed analysis of the role of the National Delegate Conference (176) would be outside the scope of this study it might be summarised thus:

"A comparison of the position of the National Delegate Conference, the highest legislative body with the highest executive body, the NEC, shows the legislative to be inferior". (177)

I have argued that the position of the NEC and especially of the NEC's is one of "centralised power", receiving important support from members who are works councillors and salaried staff. This has consequences for the strength of the union at local level.

Since many works councillors (178) in the chemical industry, and particularly in the larger companies are not renowned for their support of

175. cf. Dzielak et al., passim.
177. Authors' translation of: "Vergleicht man die Stellung des höchsten Legislativorgans Gewerkschaftstag mit der des entsprechenden Exekutivorgans Hauptvorstand, so ergibt sich eine ... Unterlegenheit der Legislative". Dzielak et al., op. cit., p.130.
178. A more detailed analysis of the role of works councillors within the chemical industry can be found below. cf. Chapter 5.
the union in their works, this has contributed to a very low level of organisation in these works. (179)

The NEC is aware of this weakness, and although it needs the support of these groups attempts have been made to strengthen the position of the union locally against the works councillors; one such has already been mentioned: district secretaries do not need to be re-elected once they hold the post. The rights of the lay officers were also increased at the beginning of the 1970's (180), but despite these changes the works councillors still have the dominating position in the works. (181) As a result of the developments described above an opposition group exists within the union consisting of a large number of lay officers, some progressive works councillors and a relatively small number of full-time officers including a minority of the NEO's. (182)

The consequences of a highly centralised, yet divided, union apparatus and a weak union organisation at shop floor level can be clearly seen by considering collective bargaining in recent years. Early in the 1970's one reaction was to try to introduce local bargaining in order to strengthen the local union organisation. (183) This policy was

180. See Chapter 5 below and J. Bergmann et al., op.cit., p.305f.
181. Dziolak et al., op.cit., p.121. The empirical investigations, a part of this study, confirmed these findings. (Interviews VL 1, VL 3 and VL 5, all Oct.'78).
183. The Hessen region tried to introduce it in vain in 1970. cf. Ibid., p.85f.
extremely controversial within the union and provoked a fairly violent argument for some years.\(^{(184)}\)

In the end, however, this policy failed due to extreme resistance by the employers\(^{(185)}\) and it has more or less been abandoned, leaving a situation in the larger companies of a considerable difference between the agreed basic rates and the basic level of earnings.\(^{(186)}\)

Some regions then tried to gain agreements which included minimum wage increases as opposed to simple percentages in an attempt to decrease differentials. By 1977, however, this policy met increased opposition, particularly from the group of salaried staff members, so that in this year most districts demanded percentage increases.\(^{(187)}\)

Since bargaining has been carried out at national level, the agreements reached have only been of the percentage increase type.\(^{(188)}\) It seems, therefore, as far as collective bargaining is concerned that centralised bargaining aiming to uphold differentials has gained ascendancy, despite the opposition of a faction within the union.

\(^{184}\) cf. Protokoll 1972, p.470ff. Various points of view were put forward by respondents e.g. Interviews FTO 1, Aug.'77; FTO 6, Aug.'77 and BRV 5, Sep.'77.

\(^{185}\) This opinion was forcefully put by most representatives of employers associations, e.g. Interviews ER 1, Aug.'77; ER 4, Aug.'77 and ER 8, Sep.'77.

\(^{186}\) The latter is also hard to determine, and the gap varies from company to company, e.g. Interviews CM 11, Sep.'77, 12-17%; BRV 5, Sep.'77, 50-60%; FTO 11, Sep.'77, 30-40%; Agrochemie AG case study works ca. 20%. There seems to be an association between the size of company and the level of plus payments.


Another long standing argument within the Chemical Workers' Union has centred around the question of plant representatives who exist in a number of large chemical companies. (189)

The argument reached a head early in 1979 when an attempt was made to give all plant representatives the status of lay officers. Opposition within the union was disregarded to such an extent that a number of front page articles appeared in the "Frankfurter Rundschau". Such publicity was eventually given to the opposition campaign against the majority of the NEO's, and such a wave of solidarity occurred amongst full-time officers against the over-reaction of the NEO's that the proposals were eventually modified. (190)

The Chemical Workers' Union might be summarised, then, as a highly centralised union which gives considerable power to the NEC and to its permanent officials, the NEO's. One consequence of this has been a weak shop floor organisation (191) and another has been opposition within the union, mainly based on ideological and sectional lines which reflect perhaps traditional splits within the German trade unions. Despite the power of the NEC, the opposition group has sometimes been able to modify

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189. Known generally in German as: betriebliche Vertrauensleute", they are elected by all employees, not just the union members. For example, cf. Hoechst AG, Betriebsvereinbarung über betriebliche Vertrauensmänner, Frankfurt(M)-Höchst, 13.3.1967.

190. This information comes primarily from informal discussions. The official trade union reaction may be found in "Vertrauenserklärung für Karl Hauenschild. Verurteilung tendenziöser Berichterstattung der 'Frankfurter Rundschau'" pressedienst, XV/25, 5.4.1979; "Berufung bleibt die Ausnahme", Go 3/79, p.2 and "Anderung der Satzung", Go 4/79, p.2.

191. A more detailed analysis of the reasons for the weakness of the shop floor organisation is presented below. A significant cause is, however, the workforce structure of the chemical industry.
policy, although centralism seems to be gaining as far as collective bargaining is concerned. (192)

As Klaus von Beyme has pointed out, (193) centralism in trade unions is not necessarily bad, nor must decentralisation be good. However, it is important that the trade union should be able to fulfil its role, and not only in times of economic stability. It is contended that the centralisation of the Chemical Workers' Union has further increased its weakness at shop floor level which has consequences for the ability of this union to strike successfully in the chemical industry.

(iii) Employers' organisations and management.

German chemical companies have twice achieved a dominant position in the world chemical industry and management has made a significant contribution to this economic growth. Furthermore, management in the chemical industry has a long tradition of co-operation amongst itself, not only in cartels but also through the formation of trade and employers' associations. In this section the role of employers' organisations and management in the economic development and industrial relations in the chemical industry are considered. It will be shown that although owners and managers were partly responsible for this economic growth, subsequently economic and political developments together with the industrial organisation and the nature of the chemical industry exert considerable influence on the structure and function of both management and employers' organisations.

192. The effect of employers' policy on this tendency is also discussed below.
A consideration of the historical development of chemical employers' organisations will help to explain the current role and structure of employers' organisations within the West German chemical industry.

Although, on its formation in 1876, the Central Association of German Industrialists (CVDI) was a confederation of associations from many branches of industry, it did not include an organisation representing chemical manufacturers. Not until one year later was such an organisation formed. It seems highly likely that this delay in formation of an organisation to represent the chemical industry is a reflection of the rather belated development of this industry compared with those industries such as coal, iron and textiles which are the classic vehicles of the industrial revolution.

The power of the iron and steel industries within the CVDI together with the divergence of interests and policies which existed between the owners of the heavy industries and the chemical industry caused the Chemie-Verein to leave the CVDI in 1890. Not only did the


196. This organisation was called Verein zur Wahrung der Interessen der Chemischen Industrie Deutschlands, Chemie-Verein for short.

197. For example, in 1870 German alkali production was only 34900 tonnes compared with 1.4 million tons of pig-iron and 170000 tons of steel. L.F. Haber, 1958, op.cit., p.47 and W.O. Henderson, The Rise of German Industrial Power 1834-1914, London, 1975, p.140 respectively.

198. For the influence of these industries in the CVDI cf. H. Kaelbe, op.cit., p.39.

199. Ibid., p.175.
chemical manufacturers and the owners of many of the newer manufacturing industries disagree with the protectionist policies supported by the heavy industries as the newer industries were more export intensive, there were also ideological differences between the two groups of industries. Whereas the owners of the heavy industries were protagonists of a form of authoritarian paternalism, those in the new industries such as chemicals employed a system of social paternalism. However, it seems that the reasons for this, at lease as far as the chemical industry was concerned, were more pragmatic than truly ideological, since the chemical employers remained vehement in their opposition to trade unions and the collectivisation of their employees.

One reason for this social paternalism was the rapid growth of the chemical industry. As a result of this the industry had large labour requirements and in order to attract this labour and reduce turnover it introduced a wide range of welfare benefits. Another reason was the tendency to build chemical works on green field locations and the resultant lack of local facilities made the introduction of a large range of the benefits such as housing a necessity. Kaelbe also considers

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204. cf. L.F. Haber, 1958, op.cit., p.249f. These benefits were made possible by the high profit rates of the industry. Dzialak et al., op.cit., p.64.
205. The Bayer works in Leverkusen provides an excellent example of this. (Interview TN 12, No.'78).
that the size of factories was an important factor here.\(^\text{206}\) He argues that the formation of large factories is not conducive to social paternalism, and although he presents figures to support this argument the current situation in the German chemical industry, where the major companies still display this sort of paternalism seems to invalidate his argument.

This split amongst the employers led in 1895 to the formation of the Federation of Industrialists,\(^\text{207}\) not least due to initiatives by the Chemie-Verein\(^\text{208}\). It is interesting to reflect that at a time when the German trade union movement was divided along ideological lines, the employers' organisations were also split. This division does not seem, however, to have hindered the industrial relations policies of the chemical companies. Although many of the early associations had been formed with the express aims of resisting the new organisations of labour,\(^\text{209}\) and despite the fact that shortly after the turn of the century both the CVDI and the BI founded employers' associations,\(^\text{210}\) management policy which was often co-ordinated had been so successful

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206. Due to the late development of the chemical industry, there were few large chemical works at this time. For example, in 1895 13 per cent of employees in the chemical industry worked in large works compared with 45 per cent in the coal, iron and steel industries. H. Kaelbe, \textit{op.cit.}, p.60.

207. \textit{Bund der Industriellen (BI).} For an account of this organisation of H.-P. Ullmann, \textit{op.cit.}

208. \textit{Ibid.}, p.29f.


210. These associations were the \textit{Hauptstelle der Deutschen Arbeitgeberverbände (CVDI)} and the \textit{Verein der Deutschen Arbeitgeberverbände (BI)}. W. Simon, \textit{op.cit.}, p.26. It is uncertain if the Chemie-Verein followed suit at the same time. Dzielak \textit{et al.}, (\textit{op.cit.}, p.68) state that they did whereas Ullmann (\textit{op.cit.}, p.197) claims the opposite occurred.
at resisting trade unionism in the chemical industry that few companies felt it necessary to join. Thus only 16 per cent of employees in the chemical industry worked in companies which were members of the chemical employers' associations around 1910.\(^\text{(211)}\)

Despite the formal schism between these two employers' associations, they shared similar interests and this led firstly to close co-operation and finally to amalgamation in 1913.\(^\text{(212)}\) German employers thus achieved unity far earlier than the trade unions, in fact before a central employers' association had even been formed in the chemical industry. Since this time employers in Germany have displayed considerable solidarity, a tradition which at the present time takes the form of sympathetic lock-outs and the maintenance of strict discipline in the face of strikes such as resisting pressure to form company agreements.\(^\text{(213)}\)

During the First World War the CVDI and BI were required to co-operate closely and employers' organisations gained in importance significantly under war conditions.\(^\text{(214)}\) The Chemie-Verein, for example, took over organisation and management of the export control system.\(^\text{(215)}\) As a result of their co-operation during the war and given the precarious situation of employers after Germany's defeat, the CVDI and BI decided to amalgamate their organisations early in 1919. The result of this merger was the National Federation of German Industries.\(^\text{(216)}\) In

\(\text{\textsuperscript{211}}\) H. Kaelbe, \textit{op.cit.}, p.32.

\(\text{\textsuperscript{212}}\) This organisation was called the Vereinigung der deutschen Arbeitgeberverbände, (VDA). H.-F. Ullmann, \textit{op.cit.}, p.199.

\(\text{\textsuperscript{213}}\) For an example from the chemical industry in 1971 cf. Dziela et al., \textit{op.cit.}, p.394ff.

\(\text{\textsuperscript{214}}\) W. Simon, \textit{op.cit.}, p.27ff.

\(\text{\textsuperscript{215}}\) L.F. Haber, 1971, \textit{op.cit.}, p.259.

\(\text{\textsuperscript{216}}\) Reichsverband der Deutschen Industrie (RDI), W. Simon, \textit{op.cit.}, p.32ff.
this way the bi-partite system of employer representation in Germany(217) was created which may still be found today. Trade associations and employers' associations are organised at national level in two separate confederations, the VDA and RDI of the Weimar Republic having been replaced by the BBA and EDI(218) after the Second World War.

The aftermath of the First World War also had direct consequences for employers' organisations in the chemical industry. The first centralised chemical employers' association was founded on the express request of the trade unions in 1918. This had immediate results for the following year the first national collective agreement for the chemical industry was signed.(219) Relations between trade unions and employers continued to be reasonably good at national level for when the General Federation of German Trade Unions (ADGB) withdrew from the Zentralarbeitsgemeinschaft(220) in 1922, the industrial equivalent in the chemical industry remained in existence(221) although "responsibility for wages and conditions of work was transferred to a special negotiating body, the Tarifgemeinschaft Chemie".(222)

217. This ignores the Chambers of Industry and Commerce (Industrie- und Handelsgenossen) which organise all the employers in given localities. cf. Ibid., p.122ff.

218. These organisations are called the Bundesvereinigung der Deutschen Arbeitgeberverbände or Confederation of German Employers' Associations and the Bundesverband der Deutschen Industrie or Federation of German Industries respectively.

219. Dziolak et al., op.cit., p.66f. This agreement had three signatory parties on the trade union side, the Factory Workers' Union, together with Christian and H.-D. Factory Workers' Associations. In Leverkusen 10 unions, many of which were craft unions, were involved in local agreements at this time. Curt Duisberg, op.cit., p.97f.

220. Formed in 1918 to co-ordinate employers' and trade unions' actions during the immediate post-war period. cf. H. Limmer, op.cit., p.50ff.


At this point of time the tendencies towards cartelisation which had been apparent in the chemical industry finally led to the formation of IG Farben. This enormous concern continued to pursue the social paternalism which had been a characteristic of its founder companies. The level of plus rate payments and welfare benefits in the chemical industry was extremely high throughout this time, especially in IG Farben, and this aided the employers in containing the influence of the trade unions. (223)

In the immediate years after the Second World War the chemical employers' associations reformed first locally and by 1947 had achieved a quasi-national organisation. Two years later the Federation of German Chemical Employers' Associations (224) was founded. The Arbeitsring Chemie is an important member of the BDA (225) and similarly the Association of the Chemical Industry (VCI), founded in 1951, is a member of the BDI. (226) In this way the separation of interests between trade and employers' associations which has traditionally existed in Germany was continued by the chemical industry in the Federal Republic. Nevertheless, co-operation between the two employers' organisations in the chemical industry which had always been close grew more extensive

223. Dziela et al., op.cit., p.67f.


225. One reflection of the importance of the Arbeitsring Chemie in the BDA was the succession of Otto Esser erstwhile President of the Arbeitsring to the post of President of the BDA on the death of Hanns-Martin Schleyer, cf. "Interview mit BDA - Präsident Otto Esser," Infobrief, 4/78, p.3ff and Interview ER 8, Sep.'77.

with the passage of time particularly on matters which concern both organisations such as co-determination. (227)

The Arbeitsring Chemie attempted to reawaken the attitudes of social partnership which had existed in the chemical industry between employers and trade unions in the Weimar Republic. (228) This policy was successful in the immediate post-war years with employers and unions working together to reconstruct the industry, and these attitudes apparently determined relations between the Arbeitsring and the Chemical Workers' Union through the 1950's. (229)

What is the structure of the Arbeitsring and how does this influence policy? Figure 2.2 shows a schematic representation of the organisation. Companies are organised into regional employers associations; (230) these associations elect representatives to a General Meeting (231) and they also appoint the Standing Committee. (232) The peak of the organisation

227. L. Losacker, op.cit., and Interview ER 8, Sep.'77. In several cases the Regional Directors of the Chemical Employers' Associations also run the Regional Trade Associations. Interviews ER 1, ER 3 and ER 6, all Aug.'77.
228. Dzielak et al., op.cit., p.68.
229. Ibid., p.69 and L. Losacker, op.cit.
230. For example, in 1975, the Chemical Employers' Association in Baden-Württemberg had 307 member companies which employed 77,695 persons. Arbeitsgeberverband Chemie Baden-Württemberg, Satzung, Mitgliedschaften ..., Baden-Baden, 1.1.1975 and Arbeitsring, Zahlen zur Sozialpolitik, 1979, op.cit., p.6.
232. Mitgliederrat, of. Ibid., Paras 10 and 11.
consists of the Executive Committee which appoints the Directorate.

**Figure 2.2**

The Structure of the "Arbeitsring Chemie" (A)

```
Head Office
   Staff

Directorate (3)

Executive Committee (7)

Standing Committee of Members (27)

Meeting of Representatives of Member Associations
(DM.10 Mill. Wage Costs = 1 vote)

12 Member Associations

Baden-Württemberg
Bremen
Niedersachsen
Saarland

Bayern
Hamburg
Nordrhein-Westfalen
Schleswig-Holstein

Berlin
Hessen
Rheinland-Pfalz
Westfalen

1900 Chemical Works, Factories etc. 671 000 Employees
```


B. This association has no member companies but six local employers' associations. Ibid., p.39ff.

233. Vorstand, consisting of a President (Vorsitzender) and two Vice Presidents and a further six members in 1977 (excluding the Director General who also has a seat). Interview ER 8, Sep.’77. However a total of eight additional members may be elected. Satzung des Arbeitsringes, op.cit., Para 12.

234. Geschäftsführung, consisting of a Director General (Hauptgeschäftsführer) and two Deputy Directors. Ibid., Para 14 and 25 Jahre Arbeitsring Chemie, op.cit.
According to Dzielak et al., the most important decision making body in the Arbeitsring is the Meeting of Representatives of Member Associations (General Meeting). The voting system of this meeting reflects the importance of collective bargaining, the major role of the employers' associations in the chemical industry, since wage costs are used to determine the number of votes which each member association has.

However, this General Meeting only takes place once a year and is therefore not able to influence everyday activities.

The Standing Committee of Members has a far greater influence on the policy of the chemical employers' associations. It has three major tasks; it elects the Executive Committee (EC) every two years, it also appoints the Co-ordination Committee from amongst its members and the collective bargaining committees of the member associations, and it elects the national collective bargaining committee. In this way the Standing Committee directly appoints those bodies which carry out both national and regional bargaining, as well as the most senior lay officers. The number of seats which each of the regional

---


237. The Standing Committee also elects the President of the Arbeitsring. Until recently the President was traditionally not a representative of one of the three largest companies. Dzielak et al., op.cit., p.71. However, the current President, Erhard Bouillon, is a member of the executive board of Hoechst AG. cf. "Sachlichkeit in den Auseinandersetzungen," Interview mit Erhard Bouillon, Infobrief, 6/78, p.4ff. This appointment is more in line with the actual power situation within the association.

238. Interviews ER 6, Aug.'77 and ER 8, Sep.'77. cf. Arbeitsring Chemie, Grundsätze für die tarifpolitik Koordinierung, 23.7.1976, (cited hereafter as Koordinierungsgrundsätze).

239. The Co-ordination Committee controls the regional bargaining of the member associations. cf. Arbeitgeberbeschwerde, op.cit., p.35.
associations holds on the Standing Committee is shown in the table below and it reflects the importance of the various regions within the chemical employers' associations, and thus the structure of the chemical industry.

Table 2.3

The Regional Structure of the "Arbeitsring Chemie" and the Importance of Companies with more than 2000 employees. (240)

<table>
<thead>
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<tbody>
<tr>
<td>Baden-Württbg.</td>
<td>77 215</td>
<td>11.6</td>
<td>47</td>
<td>78</td>
<td>78</td>
<td>3</td>
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<tr>
<td>Bayern</td>
<td>61 305</td>
<td>9.2</td>
<td>65</td>
<td>38</td>
<td>48</td>
<td>2</td>
</tr>
<tr>
<td>Berlin</td>
<td>13 585</td>
<td>2.0</td>
<td>71</td>
<td>20</td>
<td>33</td>
<td>1</td>
</tr>
<tr>
<td>Bremen</td>
<td>1 114</td>
<td>0.2</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Hamburg</td>
<td>23 556</td>
<td>3.5</td>
<td>63</td>
<td>57</td>
<td>24</td>
<td>1</td>
</tr>
<tr>
<td>Hessen</td>
<td>113 461</td>
<td>17.1</td>
<td>66</td>
<td>75</td>
<td>63</td>
<td>4</td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>37 179</td>
<td>5.6</td>
<td>58</td>
<td>71</td>
<td>52</td>
<td>1</td>
</tr>
<tr>
<td>Nordrhein-Westf.</td>
<td>186 446</td>
<td>28.0</td>
<td>77</td>
<td>83</td>
<td>71</td>
<td>8</td>
</tr>
<tr>
<td>Rheinl.-Pfalz</td>
<td>86 930</td>
<td>13.1</td>
<td>75</td>
<td>44</td>
<td>42</td>
<td>3</td>
</tr>
<tr>
<td>Saarland</td>
<td>6 694</td>
<td>1.0</td>
<td>--</td>
<td>--</td>
<td>--</td>
<td>1</td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>10 417</td>
<td>1.6</td>
<td>38</td>
<td>88</td>
<td>.83</td>
<td>1</td>
</tr>
<tr>
<td>Westfalen</td>
<td>47 529</td>
<td>7.1</td>
<td>73</td>
<td>60</td>
<td>53</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>665 430</td>
<td>100</td>
<td>68</td>
<td>63</td>
<td>54</td>
<td>27</td>
</tr>
</tbody>
</table>

240. Data from Zahlen zur Sozialpolitik, 1979, op.cit., p.6; Arbeitgeberbescherwerde, op.cit., p.36ff and 25 Jahre Arbeitsring Chemie, op.cit. Own calculations. For the development of the numbers of employees in organised companies in the chemical industry cf. Appendix 1 Table 11.
It is apparent, therefore, that three regions, Nordrhein-Westfalen, Rheinland-Pfalz and Hessen dominate the Arbeitsring Chemie from the point of view of the percentage of employees covered (58.2) and the percentage of seats on the Standing Committee (55.6). One reason for this is the location of the main production sites of the three largest German chemical companies in these regions. For example approximately 58 per cent of the employees in the Rheinland-Pfalz region work at the BASF site in Ludwigshafen.\(^{241}\) It is no coincidence that, in the case of regional wage negotiations taking place, these three regions are the first to negotiate, or that the agreement reached in these regions is adopted almost without exception by the other regions.

The co-ordination of bargaining by the employers' associations in the chemical industry is crucial for the development of unified policy within this area and for putting it into practice.\(^{242}\) According to representatives of the employers' associations the reasons for needing co-ordinated bargaining are firstly a large number of their member companies having production sites in a variety of regions, and these companies would find it difficult to apply different wage increases.\(^{243}\) The second reason given was the fact that the Chemical Workers' Union is centrally controlled.\(^{244}\) Neither of these seems to be the real reason, however,

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241. Interview ER 10, Sep.'77.
242. There are actually two levels of co-ordination. The three biggest regions form a bargaining association, and do not bargain independently at all. (Interview ER 1, Aug.'77). The second level is the Co-ordination Committee of all the regional associations.
243. Ibid.
244. Interview ER 8, Sep.'77.
since there are large regional differences in wage levels, and employers seem to manage to cope with this problem. Furthermore, much of the trend towards centralisation of bargaining within the Chemical Workers' Union has been seen to be a reaction to increasing centralisation on the employers' side. Perhaps a more important motivation for co-ordinated bargaining is to gain a tactical advantage over the union and the hope that the influence of the leaders of the union will have a moderating effect on the demands made by the union and the final level of the agreements.

The numerical influence of large companies in the various committees across the chemical employers' associations does vary from one region to another but it always remains considerable, even in those regions where the percentage of employees in large companies is fairly low, such as in Schleswig-Holstein. There are various reasons for the high percentage of large employers in the chemical employers' associations. Not only do large companies predominate in the industry, but these

246. The employers associations have done this quite successfully on at least two occasions, 1971 and 1977. cf. Dzielak et al., op.cit., p.394; Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.154 and Chapter 4 below.
247. National wage bargaining such as occurred in 1978 and 1979 can be taken as the ultimate in co-ordinated bargaining. In this case, a more moderate line can certainly be expected from the union since a strike or lock-out would have extreme financial consequences for the union, besides being technically difficult to organise.
248. Thus, a very large number of chemical companies are not organised by the employers' associations e.g. in one region only 200 out of 1500 companies were members, but despite this over 95% of employees were covered by these 200 companies. Interview ER 6, Aug.'77. This level of organisation of employers in terms of employees holds generally for the chemical industry. Interview ER 8, Sep.'77.
249. See Chapter 3 below.
companies have more advantage from membership in an association. Since wage rates must be bearable to the smallest and least profitable companies in the association, this leaves the larger companies more room to manoeuvre in their relations locally with the works councils. In this way they can appear to be generous employers paying high plus rates and offering many welfare benefits and this often has a positive influence on the attitudes of employees towards the companies in which they work. Furthermore, since the works councils are dependent on success in negotiations with management for re-election, they are less likely to press for very high wage demands which might erode the level of plus rates and benefits. Due to the power of works councillors in the union, this also has a moderating effect on wage demands.

Another reason for the high percentage of large employers is that many small companies which do not have works councils and whose employees are generally not union members do not feel the need for membership. They fear that they might be drawn into disputes which would not otherwise have affected them. In these cases the solidarity funds, which many employers' associations including those in chemicals have established, do not alter the companies' attitude.

Nevertheless, it is often the availability of the other services provided by the employers' associations within the chemical industry which

250. An argument often used by employers in bargaining. Interview FTO 7, Aug.'77 and ER 3, Aug.'77.
251. Interview ER 1, Aug.'77.
252. Interview ER 3, Aug.'77 and cf. Dzielak et al., op. cit., p.69.
provides motivation for the smaller and middle-sized companies to join, rather than the question of employers' solidarity and collective bargaining. Perhaps the most important of these services is legal advice and legal representation at Labour Courts.\(^{(253)}\) It is a reflection of the highly legalised system of industrial relations in West Germany that by far the vast majority of the officials of the chemical employers' associations are lawyers.\(^{(254)}\)

Other tasks carried out by the chemical employers' associations include running education courses at their school,\(^{(255)}\) providing their member companies with comparative information on the structure of the industry and wages etc., and last but by no means least public relations activities.\(^{(256)}\) The aim is to present an "objective" picture of chemical employers and to air their point of view. This becomes especially crucial should a dispute situation arise, as evidenced by the developments in 1971 and 1977. On both occasions the chemical employers were extremely successful in presenting their point of view to the media and

\begin{itemize}
  \item 253. Interviews ER 3, Aug.'77 and ER 10, Sep.'77. This is more important for smaller companies because they often do not have employees with the same level of expertise as can be found in the larger ones.
  \item 254. "Not only does this background provide knowledge which is of great use, it also teaches the logical processing of information." Interview ER 1, Aug.'77.
  \item 255. Interview ER 3, Aug.'77. Amongst others, courses are run for supervisors, plant managers, senior managers, safety engineers, etc. cf. Arbeitsring Chemie, Fortbildung 1977, Wiesbaden. Since 1972 some 4000 senior managers have taken part in seminars on society and politics. "Das Bildungswerk des Arbeitersrings-Service für Führungskräfte," Infobrief 4/79, p.5. Courses are also run for works councillors. Interview ER 7, Sep.'77.
  \item 256. Interviews ER 3 and ER 6, both Aug.'77; ER 8 and ER 10, both Sep.'77.
\end{itemize}
this contributed significantly to weakening the willingness of employees to strike. (257)

The Arbeitsring Chemie has a highly centralised structure dominated by the large chemical companies. This structure aids in the formulation and achievement of unified policies and in co-ordinating bargaining tactics, with the result that it has so far been able to out-maneuvre the Chemical Workers' Union. Thus, the structure of the Arbeitsring is conducive to the achievement of its aims in the most important field of its activities, collective bargaining.

b. Management.

The contribution of management and senior staff in general to the success of the German chemical industry has been considerable.

According to Haber:

"Numbers and the quality of the chemists were by no means the sole reason for success. Managerial and financial ability also counted and the financial basis of the larger companies was sound because of the generous depreciation provisions and the careful husbanding of resources. Profits were ploughed back and the impression of financial strength was carefully fostered; it was assisted by the practice of the banks, which often held substantial stakes in the companies ..." (258)

Although Haber was describing the German chemical industry at the turn

257. cf. Dzielak et al., op.cit., passim and especially 393f. Also Arbeitsring Chemie, Dokumentation über die Tarifrunde 1977 der chemischen Industrie, no place, 1977, especially Part 3, pp. 85-139. (cited further as Tarifrunde 1977). So successful were the employers in this latter case, that a regional Director General stated: "There was not a single case of unobjective reporting of this dispute." (Interview ER 10, Sep.'77).

An example of this total objectivity is:
"In reality the trade unions are dictating the conditions to the companies even against all economic rationality." Authors' translation of: "In Wirklichkeit diktieren die Gewerkschaften den Unternehmen die Bedingungen, auch gegen jede wirtschaftliche Vernunft," G. Spranger, Trierischer Volksfreund, 21.5.1977, reprinted in Tarifrunde 1977, op.cit., p.124.

of the last century, much of what he said is still applicable at the present time.

The German chemical industry was one of the first to realise the importance of trained chemists and has always fostered close co-operation between industry and the universities.\(^{(259)}\) It was against this background that managers with a training in chemistry became very important at a time when most industries were still controlled by their owners.\(^{(260)}\) The difference in ideology of owners and managers in Germany\(^{(261)}\) may well have contributed to the ascendancy of social paternalism as opposed to the more authoritarian attitudes often apparent in the heavy industries. Nevertheless, Hartmann does state that there is currently little differentiation between owner-entrepreneurs and the most senior members in management.\(^{(262)}\)

The managerial structure of public companies in the German chemical industry has the normal two-tier board system,\(^{(263)}\) supported by a large staff. The shareholders representatives on the supervisory board are rarely private persons. Normally they are elected to the board as follows:

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259. Ibid., p.42ff.
261. A discussion of this question may be found in H. Hartmann, \textit{op.cit.}, p.22ff. For a recent investigation into the attitudes of Ph.D. chemists working in the chemical industry \textit{cf.} J. Kurucz (ed.), \textit{Das Selbstverständnis Von Naturwissenschaftler in der Industrie}, Weinheim/Bergstr., 1972.
262. Ibid., p.41.
the representative of some organisation with interests in the company." (264)

One reason for this is the absence of large private shareholders in the chemical industry. Bayer, for example, has approximately 500,000 shareholders (265) and Hoechst has around 420,000. (266) As Rauschel has shown for BASF, the individual shareholders have very little direct power, although much influence is exerted by the banks through the use of proxy votes. (267)

The same author has also traced the directoral posts held by both supervisory board and executive committee members in BASF. Senior members of the EC hold many posts on the boards of daughter companies and the senior members of the supervisory board sit on the boards of a large number of other companies — the chairman and two deputy chairmen hold an average of ten such posts each. (268) In this way the basis for co-operation between companies and for co-ordinated policy particularly within the trade and employers' associations is created.

Hartmann has discussed the question of the meaning of the term "management" in the German context. (269) The results of research conducted as
a part of this study agree in principle, if not in detail, with his findings. Managers are only considered to be the senior executives of a company, either at board level or just below, and as such are felt to be the representatives of the interests of capital in the company.\(^{270}\)

Indeed, it is with this level of management that most matters are regulated between the works council and the company, especially on the larger sites.\(^{271}\)

Nevertheless, a great deal of preparatory work is done at lower levels especially within the personnel department and on joint works council/management committees which in certain circumstances may also make autonomous decisions.\(^{272}\) In spite of this it is recognised that there is a hierarchy of management which begins at the level of plant management and extends upwards.\(^{274}\) This limitation to those categories seems to be very similar to those members of the workforce who are classified as senior managerial staff.\(^{275}\)

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270. This applies to the German term Manager which is not very popular in certain circles. Interviews FTO 10, FTO 13, BRV 5 and ER 8, all Sep.'77.

271. Interviews BRV 1, BRV 2, both Aug.'77 and BRV 4, BRV 5, both Sep.'77.

272. Interviews CM 12, BRV 16, BRV 18, all Nov.'78. Nevertheless, investigations indicated that informal relations between management and employee representatives were of considerable importance.

273. Such as in the case study works of Agrochemie AG. Interviews M 5, M 7, M 10, BR 2, all Oct.'78.

274. Interviews BRV 4 and BRV 5. In fact, the Agrochemie AG case study showed quite clearly that the supervisors were clearly regarded as part of management too by the shop floor. This question is discussed in more detail below.

275. There seems to be a divergence between the actual practice of classification of senior managerial staff in the chemical industry and the legal definition. This has led recently to a number of law cases to determine who exactly is a senior manager. The reason for the increase of cases has been the attempt of some works councillors to reduce the often excessive number of senior managerial staff given voting rights under the MitbestG. 1976. cf. "Leitende Angestellte: Abgrenzungsprozesse", Infobrief,7/78, p.6ff and G. Witt, Leitende Angestellte und Einheitsgewerkschaft, Frankfurt and Köln, 1975, p.9ff.
There are an extremely large number of senior managerial staff within the chemical industry. Around 4 per cent of all employees in the chemical industry fall within this category as compared with 1 to 2 per cent in most other industries.\(^{(276)}\) In the larger chemical companies, such as Hoechst, the number of such staff is even greater. At the end of 1977 5.1 per cent of employees were senior managerial staff and a further 6.8 per cent were senior staff.\(^{(277)}\) The reasons for such a high percentage of senior staff and particularly for the considerable number of academically qualified staff may be found in the nature of the chemical industry.

The chemical industry is the most research intensive industry in Germany\(^{(278)}\) and has long realised the need for skilled scientists to ensure that it remains technologically and economically competitive.\(^{(279)}\) The Association of the Chemical Industry estimates that in 1977 54,000 employees (9.4 per cent) were employed on research and development including about 8,200 scientists.\(^{(280)}\) The technological nature of the chemical industry also requires that most managers have a scientific

\(^{276}\) cf. Appendix 1, Table 11 and G. Witt, \textit{op.cit.}, p.22.


\(^{279}\) L.F. Haber, 1971, \textit{op.cit.}, p.35ff.

\(^{280}\) VCI, \textit{Jahresbericht 1978/79, op.cit.}, p.35. This would account for about one third of all scientists in the industry and since ca. 72 per cent of scientists have the status of senior managerial staff this amounts for quite a large number. Appendix 1 Table 11, own calculations.
or engineering qualification. The more senior executives in the chemical industry tend to have a background of chemistry or perhaps one of the other pure sciences. On the maintenance side of the industry an engineering qualification is an absolute necessity due to the complexity of the equipment. These various facets of the nature of the chemical industry have the result that there are a large number of senior managerial staff many of whom have academic qualifications. This has a number of consequences for industrial relations in the German chemical industry.

The large number of senior managerial staff and disagreement with the policies of the other staff unions led to the formation of a trade union for senior staff in the chemical industry as early as 1919. One year later this union succeeded in securing a collective agreement for academically qualified staff and the chemical industry remains the only industry in Germany which has special agreements for this

281. Although traditionally chemists were employed in production, recently chemical engineers have also begun to be employed there too. Interview CM 14, Nov.'78.
282. Interviews BRV 1, Aug.'77 and CM 12, Nov.'78.
283. Interview M 11, Oct.'78.
285. Interview ER 3, Aug.'77.
group of staff. Negotiations for these agreements are carried out by several organisations with the Arbeitsring Chemie. Besides the VAA and the academic group of the Chemical Workers' Union, the German Salaried Staff Union and a doctors' association all negotiate together. Due to the number of members it has, the VAA has the most influence in those negotiations. One reason for the ability of this group of staff to guarantee minimum conditions besides the tradition of bargaining is a high level of organisation. The VAA alone claims to organise 80 per cent of scientists and two thirds of senior managerial staff. These claims seem rather excessive, but out of around 30,000 possible members they would have a membership density of 60 per cent. If the membership in the Chemical Workers' Union is also taken into account, this gives a density of about 76 per cent which is higher than that of workers in the chemical industry!

286. Interviews ER 1, Aug.'77 and ER 10, FTO 13, both Sep.'77. The two agreements concern general conditions of employment and minimum salaries for the first five years of employment. cf. Montetarifvertrag für akademisch gebildete Angestellte in der chemischen Industrie, Wiesbaden, 5.3.1976 and 16.5.1978 together with Gehaltstarifvertrag über die Mindestjahresbesolge für akademisch gebildete Angestellte der chemischen Industrie in den ersten fünf Berufsjahren, 16.5.1978.

287. cf. GB 72-75, op.cit., p.189ff. This group had 5325 members in 1975.

288. The Chemical Workers' Union once tried to negotiate separately but this failed. Ibid.

289. F. Ische, "Wir sind nicht eine Gewerkschaft im Sinne einer Kampforganisation gegen den Kapitalismus", Infobrief, 9/77, p.6. Dr. Ische was the President of the VAA but has subsequently been elected President of the ULA, the central organisation of trade unions for senior managerial staff.

290. F. Ische, "Der DGB sollte seine diskriminierenden Angriffe gegen die ULA einstellen", Infobrief, 5/79, p.7ff. The amount of space given to this organisation by an employers' publication is an interesting comment in itself. For more details on the ULA, cf. G. Witt, op.cit., p.53ff.

291. F. Ische, Infobrief, 9/77, op.cit., p.8 and own calculations from Appendix 1 Table 11.

292. GB 72-75, op.cit., p.295. The membership density of workers is 65 per cent (own calculations).
Another feature of the representative system for senior managerial staff are councils which have been formed in the vast majority of chemical companies to make up for the absence of representation of this group of staff under the works council system. These councils which attempt to deal with salary questions at company level and which are basically a vehicle for the VAA within the companies are still fairly ineffective since they lack the backing of legislative rights. This had led to a certain alienation of management towards the VAA and the representative council in the Agrochemie AG case study works. However, both the VAA and the representative councils have received considerable impetus as a result of the special rights of senior managerial staff under the Co-determination Act 1976.

It was claimed by several respondents that the attitudes of academic managers in particular had an influence on industrial relations in the chemical industry. These attitudes led to a practical and rational style of management which facilitates the discussion of problems.

293. These representative councils are known in German as Sprecherausschüsse. cf. "Acht Thesen ..." Infobrief, 6/79, op.cit. These councils have a history which extends back to around 1970. Interview CM 10, Nov.'78 and Hoechst, Bericht 1977, p.59f.

294. This remains one of the foremost aims of the VAA. F. Ische, Infobrief, 9/77, op.cit., p.7.

295. Interviews M 3, M 6 and M 7, all Oct.'78.

296. This is discussed in more detail below. The strength of the VAA over other organisations as a representative of this group is shown in Table 2.4.

297. Interviews DRV 1, FTO 9, both Aug.'77 and ER 7, FTO 14, Sep.'77. In addition all employees have access to very senior management should they want to discuss a problem. Interview FTO 11, Sep.'77. Fürstenberg does conclude, however, in his study of the chemical industry, that there are a variety of management styles and these influence employees attitudes to management. F. Fürstenberg, op.cit., p.131.
Certainly, in the author's experience, relations between employees and management are generally very good.\(^{298}\)

Relations between the shopfloor and management are fostered in the chemical industry as a result of the small primary work groups which exist particularly within the production plants and by the fairly regular personal contacts between management and workers under these conditions.\(^{299}\) This close relationship between management and shopfloor which is promoted by the production system provides management with the chance to put a considerable amount of pressure on their workers should the need arise. An example of such a situation is the strike in 1971 when management tactics of this type had significant influence in some areas.\(^{300}\) Generally, however, the economic strength of the chemical industry provides management with flexibility in their relations with the workforce and their representatives so that such measures are not necessary.

Similar factors such as small work groups and close contacts with the shopfloor also influence relations between workers and the lower end of the management hierarchy, the supervisors and specifically within

\(^{298}\) cf. Appendix 3, Tables 20 and 45. There was, however, little agreement amongst the Agrochemie AG respondents as to what the qualities of good company management are. cf. Ibid., Table 52.

\(^{299}\) Interview FTO 11, Sep.'77 and personal observations. The Agrochemie AG case study produced data which was very similar to that observed by Joan Woodward in her classic study, and it seems to have had similar consequences. For example, the length of the chain of command in Woodward's study for works of this type was 6 as opposed to 5 at Agrochemie AG and the number of hourly paid staff controlled by first line supervision was similar: Woodward 11: Agrochemie AG 15. J. Woodward, 1965, op.cit., p.50ff.

\(^{300}\) Dziolak et al., passim and especially p.387.
the production plants, the shift supervisors. The position of supervisors has received some considerable attention in Anglo-Saxon countries and various definitions have been proposed. Practice in the German chemical industry seems to conform best with the theory of the "man in the middle", although a hierarchy of supervision much like that identified by Thurley and Hamblin seemed to exist in the Agrochemie AG case study works. The most important of these levels was found to be the first-line supervisors, who in the production area are called Schichtmeister and in the workshops simply Meister.

Senior management stress that the first-line supervisors are crucial for the climate in the plants and workshops, which was observed and stated to be very good. Credit for this was given by senior managers to the supervisors. The shopfloor, on the other hand, generally

301. The German term is Meister which has a long tradition particularly within craft areas and which can scarcely be rendered satisfactorily in English. Terminology within the British chemical industry also varies considerably. Some examples are foreman, superintendents, supervisors, etc. On Meister of. P. Mathias and M.M. Poston (eds.), The Cambridge Economic History of Europe, Vol.VII, The Industrial Economies: Capital, Labour and Enterprise. Part I, Cambridge, 1978, Chapters IX and X, passim but especially p.457ff and 498ff.


304. K.R. Thurley and A.C. Hamblin (DSIR), The Supervisor and his Job, London, 1963, p.5. They identified three levels of supervisor, which in the case study here can be classified as the senior foreman - Obermeister; the (shift) supervisor - (Schicht) Meister, and the leading hand or senior process operator - Vorarbeiter or Erstmann.

305. Interviews M 2, M 7 and M 10, all Oct.'78. Also MK 14, Nov.'78.
considered the first-line supervisors to be their immediate superior—the person to whom they turned with problems and who gave them instructions. Both process and maintenance workers were happy with the standard of this supervision feeling the most important quality of a supervisor is understanding. (306)

First-line supervisors themselves classified the job as an intermediary one between management and the men. Their primary tasks are to keep the plant running to the required specifications, and to allocate work as required. Other tasks include drawing up holiday rosters, recognising what repairs are required and dealing with all the problems that occur. (307) Two statements by shift supervisors sum this situation up concisely:

"It's no good waiting for things to happen, you have to anticipate and make fast decisions. There's no time for consultation - the plant could have exploded by then." (308)

"Especially at weekends and at night there is considerable responsibility on the shift supervisor who has the whole plant under his control and he has to deal with all the problems that occur." (309)

In order to cope with this type of problem long experience on the plant, often as a worker and as a senior operator is required, together with a

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306. cf. Appendix 3 Tables 12, 19 and 20. Cross tabulation of Table 20 with Appendix 3 Table 1 was carried out and the chi squared test of statistical significance was applied, but there was no significant association. Similar results were found recently in another study of the chemical industry. cf. F. Landwehrmann and R. Albring, Information und Mitwirkung, Heidelberg, no date, (1977), p.98.

307. Interviews M 1, VL 2, K 5 and M 6, all Oct.'78.

308. Interview M 8, Oct.'78.

309. Interview M 1, Oct.'78.
degrees of technical knowledge. (310) In future it is felt increasing technological complexity is likely to increase the need for formal training. (311)

Despite the fact that the supervisor may be regarded as the bottom of the management chain he is still represented by the works council and as a result of industrial unionism is organised in the same union as the workers he supervises. The degree of trade union organisation amongst supervisors is very high. (312) These factors led to an interesting situation at Agrochemie AG whereby several work groups on the production side elected their supervisors to be their union lay representatives. This question is discussed in more detail elsewhere but it seems that the main factors which influenced this were the close relationships which grew up between men and supervisors (313) and which

310. Practice varied as far as qualifications were concerned. In Germany, the Meister is an established title which is normally gained by passing an examination. In craft areas, this qualification is an absolute necessity. Although the equivalent examination exists on the process side, covering such subjects as chemistry, electronics, mechanical engineering, men management, it was not an absolute requirement. In some cases good men who were qualified chemical operators, (Chemiefacharbeiter) a qualification equivalent to a craft trade, and who did not want to return to school were also promoted. Interviews N 1, N 3, N 9, N 10, N 11, all Oct.'78. Also cf. M. Fores et al., op.cit., p.89.

311. Interviews N 4, N 6, both Oct.'78.

312. The estimates varied between 80 per cent and 98 per cent. Interviews FTO 11 and ERV 5 both Sep.'77 and ERV 17, Nov.'78. At Agrochemie AG all supervisors interviewed were union members. The Chemical Workers' Union had over 21000 supervisors amongst their membership in 1975. GR 72-75, op.cit., p.184.

313. This is reflected in the high degree of trust placed in supervisors to solve personnel and especially work problems. cf. Appendix 3 Tables 23 and 24 together with Landwehrmann and Albring, op.cit., p.61ff and P. Fehrenberg, op.cit., p.130, 219 and 263 who all report similar results.
are fostered by the technological nature of chemical production.\(^{(314)}\)

The place of the supervisor in Germany has been summarised as a "'middle-man' position .... a place of power, with authority deriving from technical competence and from the fact that he alone knows what is going on,"\(^{(315)}\) and this seems to be in line with what was observed in the chemical industry.

By way of summary it can be said that the nature of the chemical industry has a significant influence on the management structure and therefore on industrial relations. This influence on industrial relations occurs primarily in two areas - in relations between senior and middle management with top executives and employers' associations and in relations between management and the workforce, particularly within the production sectors of the industry. The first effect has led to a more complete representation of the interests of this group than exists in most industries and the second factor has contributed towards peaceful relations between management and the workforce.

(iv) Co-determination and the chemical industry.

As Ralf Dahrendorf has pointed out\(^{(316)}\) state involvement in industrial relations has a long history in Germany; it can be traced to state

\(^{314}\). For example, small work groups, scattered work places and a supervisory role which requires touring the plants and discussing the progress of the process with the workers. Under these circumstances, together with a shopfloor background, close relationships develop.

\(^{315}\). M. Peres \textit{et al.}, \textit{op.cit.}, p.158. Also of. Landwehrmann and Albring, \textit{op.cit.}, p.130.

socialist legislation at the time of Bismarck. Co-determination, which is one of the main institutions of West German industrial relations, provides a prime example of the influence of legislation at the present time. (317)

The initial aim of this section is to provide a brief résumé of the development of co-determination to its current form in the chemical industry. This is followed by a consideration of the attitudes expressed by trade union officials, managers and employers' representatives as well as employees about co-determination. The section includes an analysis of the significance of co-determination in the chemical industry and an evaluation of its future potential.

What is understood by the term "co-determination"? In general, co-determination means all forms of influence by employees or their representatives on traditionally autonomous decision making processes in industry. (318) Although co-determination often aims at influencing all levels of economic decision making from the workplace up to involvement in economically relevant institutions, (319) it has only received

317. Legislation plays a far more important part in West German industrial relations than it does in Britain. A highly readable but carefully documented analysis of German labour law may be found in W. Däubler, Das Arbeitsrecht, Reinbek bei Hamburg, 1976.

318. Due to the complexity of the law in West Germany it is often necessary to be more precise than this. The German term Mitbestimmung is generally accepted to mean co-determination where equal rights of decision exist. Where employees only have consultation or information rights then the term used is Mitwirkung.

319. cf. R. Schmiede, "Technical Change and Industrial Democracy", in SSRC, Industrial Democracy: international views, Coventry, 1978, p.63. It will be noted that the 'economic democracy' conception of co-determination has been adopted. This can be traced to F. Naphtali's Wirtschaftsdemokratie, a work first published in 1928. For a recent republication cf. ibid., Frankfurt, 1966 especially p.182ff.
significant legislative support at two levels. These levels are those of the works or factory and the enterprise. The discussion here will be concerned primarily with the latter since the former is closely connected with workplace industrial relations and is discussed below.

The origins of co-determination can be traced back to the middle ages. However, the chemical industry first experienced co-determination as a result of the social reforms which were introduced in Germany with the establishment of the Weimar Republic. Along with a system of works councils, one or two representatives of the workforce were given a place on the supervisory board of public companies. These rights were very limited in their effect but are a reflection of the traditional desire of the Social Democratic Party and the trade unions in Germany to reform capitalism through legislative procedures.


321. Betriebsebene and Unternehmensebene respectively.

322. cf. Chapter 5.


324. Ibid., p.70f.

325. This can be traced to Lassalle's picture of the role of the state and through him to Hegel. cf. R. Dahrendorf, op.cit., p.216ff and 225ff.
After the Second World War social reform was once again the result of defeat for Germany. Similarly, however, these reforms failed to go as far as much of the labour movement had hoped. Of particular relevance to the chemical industry was the Works Constitution Act passed in 1952 against the votes of the Social Democrats and the Communists.

This act provided limited rights for works councils and stipulates that one third of supervisory board members of public companies should be representatives of employees. In terms of the development of co-determination this act was not much of an improvement over the legislation in the 1920's.

Although the Works Constitution Act was revised by the Social Democratic and Free Democratic coalition government in 1972, the regulations for employee representation on supervisory boards remained unchanged from those of the BetrVG 52. The German trade union movement had never really accepted the provisions of this act and had long desired


328. Ibid., p.123.


its repeal. With the entrance of the Social Democrats into government, their hopes were revived. However, many years and much discussion were to pass before significant changes came about in co-determination at the level of the enterprise. (331)

Finally, after much wrangling between coalition partners particularly about the representation of senior managerial staff (332) the Co-determination Act 1976 (333) was passed. An indication of the effect of Free Democratic influence on the bill can be found in the support that the final draft received from the Christian Democratic Party. (334)

Since the new act only applies to public companies with more than 2000 employees it is of great relevance to the chemical industry (335) with its predominance of large companies. For this reason chemical companies and the chemical employers' associations were particularly active in trying to prevent it being passed by parliament and in challenging the conformity of the act with the West German constitution. (336)

331. cf. I, Raehlmann, Der Interessenstreit zwischen DGB und BDA um die Ausweitung der qualifizierten Mitbestimmung, Köln, 1975.
333. cf. D.W.F. Bendix, op.cit., p.120ff and H. Schneider and D.J. Kingsmann, The German Co-determination Act 1976, Frankfurt, 1976, although this later work should be used with some care, since it uses many non-standard translations.
335. For public companies with less than 2000 employees the regulations of the BetrVG 1952 still apply.
Although the original trade union demands for a reform of the law on co-determination had by no means been fulfilled,\textsuperscript{337} and although the unions were highly critical of the new act, they decided to make the best of a bad situation and to exhaust the possibilities which existed under the act.\textsuperscript{338}

Particular criticism of the act from official trade union circles centred on the system which allowed senior managerial staff to elect their own representatives;\textsuperscript{339} on the casting vote of the chairman of the supervisory board in the case of a tie\textsuperscript{340} — this chairman is always a representative of the shareholders,\textsuperscript{341} and finally on the electoral system by which workers and salaried staff elect their representatives separately.\textsuperscript{342}

Although a decision to accept the act as it stands did provoke intense discussions within the unions,\textsuperscript{343} the vast majority of trade union officers in the chemical industry who were questioned stated that they agreed with this decision.\textsuperscript{344} In most cases stress was

\textsuperscript{337} For the original demands of DGB, Mitbestimmung jetzt — und keine halben Sachen, Referentenmaterial zur Mitbestimmung, Düsseldorf, p.74.

\textsuperscript{338} GB 72-75, p.18f.

\textsuperscript{339} MitbestG, Para. 15(4) No.3.

\textsuperscript{340} MitbestG, Para. 29(2).

\textsuperscript{341} MitbestG, Para. 27.

\textsuperscript{342} MitbestG, Paras. 15-18. The official position is explained in Gewerkschaften und Mitbestimmung, \textit{op.cit.}, p.30Off.

\textsuperscript{343} Interview FTO 15, Sep.'79.

\textsuperscript{344} For example Interviews FTO 11, ERV 4, ERV 5, all Sep.'77 and FTO 4, FTO 6, Aug.'77.
laid that the position of the labour director(345) would be crucial for the working of the act, and that the electoral procedure was far too complicated; this procedure might also lead to a split of the employee representatives into factional groups.

Despite the fact that the employees have not achieved equal representation with the shareholders on the supervisory board, the Chemical Workers' Union does hope that a number of labour directors who have their support will be elected. In some companies agreements have apparently been made whereby the present personnel director would be rechristened labour director - this is a common procedure in any case - and after his contract had expired, a union candidate would be supported by the shareholders in the next election.(346) In addition some companies had arranged for a new personnel (i.e. labour) director to be appointed for a period of about 5 years from just before the new act came into force. In this way they can delay the chance for the union to nominate candidates for the post of labour director.(347)

The reservations of the trade union officials about the complexity of the electoral system are fully justified. Not only does the system vary

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345. Although the labour director has the same title as exists in the Coal, Iron and Steel industries according to the MBG 1951, his rights and responsibilities are different. The labour director is, in fact, elected by the supervisory board in the same way as the other members of the management board. Of. H. Seidel, E. Kassler, W. Schotenröhr, "Mitbestimmungs- und gewerkschaftspolitische Schwerpunkte des Mitbestimmungsgesetzes 1976", Das Mitbestimmungsgespräch, No.5/6, 1977, p.92, and for more details on the situation in Coal, Iron and Steel of. S. Viesel, Der Arbeitsdirektor, Aufgaben und Pflichten, Köln, 1973.

346. Interview BRV 14, Oct.'78 and informal discussions.

347. Interviews FTO 7, Aug.'77 and BRV 5, Sep.'77.
for concerns, multi-site companies and single-site companies (348) but some firms have their own procedure, although this is often against the will of management, since some revisions of the procedure have been introduced by the union in this way. (349) In the majority of companies it seems likely that three elections will be required: (350) one to determine whether there will be a direct election or whether the election should be carried out by an electoral gremium; another to determine whether the blue collar and white collar representatives should be elected jointly or separately and finally the election of the representatives themselves. (351) One Regional Secretary of the Chemical Workers' Union summed up the problem concisely:

"There are far too many elections. Democracy could be ruined by them." (352)

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349. For example cf. Wahlordnung für die Wahl der Arbeitnehmervertreter in den Aufsichtsrat der Veba-Chemie AG, no place (Gelsenkirchen), no date (1977). Interviews BRV 14, Oct.'78 and FTO 4, Aug.'77.


351. The guidelines are as follows: in companies with up to 8000 employees, direct election, and in companies with over 8000, election by the electoral gremium — unless the workforce decides in a ballot for the other form of election (MitbestG Para.9); unless otherwise decided by ballot the electors in the gremium are elected by the workers or staff separately (MitbestG Para.10(2); whether the electoral gremium elects the representatives separately or jointly may also be decided by ballot in the gremium. (MitbestG Para.15(3)). The number of changes according to the first criterion has remained small, although more companies changed from direct elections than turned to it. K. Hauenschild, "Lückenhaft und ungereimt", Wirtschaftwoche, No.3, 13.1.1978, p.23.

352. Interview FTO 11, Sep.'77.
Employers' arguments against co-determination in general can be grouped into a number of categories, and these arguments tend to play upon traditional fears which exist within the German population.

The first argument centres around the question of the threat of a society controlled by the trade unions, which they believe would mean an end to democracy and perhaps even socialism. For example:

"The trade unions would control over half the turnover of German industry and so change the form of the economy and society according to trade union ideals." (354)

The second argument concentrates on the question of whether co-determination is constitutional or not. This is discussed in more detail below. The employers also argue that co-determination hinders the functional operation of companies especially if equal board representation for shareholders and employees' representatives were to be introduced. They contend that the decision making ability of the board would be greatly reduced. This argument was quite successful since it was for this reason that the chairman of the supervisory board was given a second vote to use in case of a tie when voting. (355)

353. This follows the argument presented in Gewerkschaften und Mitbestimmung, op.cit., p.392ff.


355. Experience within the Montan industries has shown that such close voting is rare, and the supervisory boards do not like taking important decisions under such conditions. Interviews FTO 8, Aug.'77 and FTO 15, Dec.'77. For a review of the question of whether the operability of companies suffer under co-determination cf. K.O. Hendrich, "Mitbestimmung und Funktionsfähigkeit von Unternehmen", Das Mitbestimmungsgespräch, No.9/10, 1975, p.15ff.
Furthermore, the employers claim that co-determination would be harmful for the economic development of industry, would hinder investment and could endanger jobs. (356)

The employers in the chemical industry share these opinions with those in many industries, but due to the fact that the chemical industry is one of those industries most affected by the Co-determination Act 1976, the employers have been particularly vehement in rejecting it. For example, Professor Hansen, whilst chairman of the executive board of Bayer AG claimed publicly that he feared that co-determination might lead to the formation of a socialist workers' state! (357)

A large number of chemical companies are covered by the new regulations. Out of about 600 companies which are affected in total, approximately 60 are from the chemical industry. (358) Due to the regional distribution of the industry, some employers' associations are more affected than others. Thus, the percentage of employees covered by the new act in the various regional employers' associations of the chemical industry varies from 38 per cent in Schleswig-Holstein to 86 per cent in the Cologne region. On average some 68 per cent of employees covered by the Chemical Employers' Association fall under the jurisdiction of the new act. (359)

357. Professor Dr. Hansen, Die Auswirkungen der Belegungsbeschlüsse in der Praxis eines Unternehmens, Vortrag vor dem HDA, Köln, 26.3.74, transcript p. 7f.
358. VCI, Jahresbericht 1975/76, op. cit., p. 57.
The influence of companies with more than 2000 employees on the policy and collective bargaining of the regional chemical employers' associations is also considerable. Some 63 per cent of the boards of directors (360) and about 54 per cent of the members of the collective bargaining committees come from these companies, although regional disparities are once more apparent. (361)

It is significant, therefore, that of the 30 employers' associations which took part in the appeal to the Federal Constitutional Court, 16 were from the chemical industry. (362)

The appeals (363) against the Co-determination Act 1976 are the key to employers' attitudes within the chemical industry:

"Our opinion of the act can best be judged by the fact that our organisation was one of those which took part in the appeal about its constitutionality". (364)

360. Vorstände.
361. cf. Table 2.3 above.
362. Arbeitgeberbeschwerde, op. cit., pp.1-7. This appeal to a court for a decision on a basically political issue indicative of the importance which courts play within industrial relations in West Germany. Also cf. D.W.F. Bendix, op.cit., p.137ff.
363. There were, in fact, two appeals: One by the employers' associations which was concerned with Art.9 Para.3 of the Basic Law (The Principle of Autonomous Collective Bargaining - Tarifautonomie); the second by nine companies, five of which come from the chemical industry and include Bayer and Hoechst. This appeal was primarily based on Art.14 Para.1 Basic Law which concerns property rights. cf. Unternehmenbeschwerde, op.cit.
364. Interview ER 1, Aug.'77. Similar statements were made by almost all the Directors of the regional chemical employers' associations to whom the question was put.
According to respondents, the central issues involved in the appeals concerned firstly the fact that labour directors who might well sit on collective bargaining committees of the employers' associations could be strongly influenced by the trade unions. Secondly, trade union representatives on the supervisory board would have access to information which would give them an advantage over the employers in negotiations and thus "the balance" of power would be destroyed. Third, should a shareholder representative not be able to attend a board meeting, then the employee representatives would have a majority and this would remove the shareholders rights to their own property. (366)

However, a large number of the trade union officials questioned considered that the real aim of the appeals to the Federal Constitutional Court was not to change the act but to elicit a statement from the judges that it lay just within the bounds of the constitution. In this way, the achievement of equal co-determination, which still remains the aim of the trade unions, would be effectively prevented. This aim was confirmed by a number of employers' representatives. (369)

As a result of the appeals to the Federal Constitutional Court, and the

365. A number of trade union representatives (2 or 3) depending on the size of the company are elected onto the supervisory board. Nomination occurs by the unions and election by the workforce or the electoral gremium. (Kitbestü Para. 7(2) and 16).
366. Interviews ER 1, Aug.'77 and ER 4, ER 3, both Sep.'77.
367. Interviews FTO 4, FTO 6, FTO 7, FTO 8, all Aug.'77. etc.
369. Interviews ER 1, ER 3, both Aug.'77 and ER 7, Sep.'77.
timing of the appeals, the German Trade Union Confederation decided to withdraw from the Konzertierte Aktion in protest. The Chemical Workers' Union were particularly incensed, feeling that the action of the employers' associations and companies had done much to damage the climate of relations, which had previously been marked by responsibility. Although it seemed at the time as if the actions and statements of the trade unions were designed to make an impression on the general public, there has to-date been no return of the trade unions to the KA, although there have recently been reports of meetings between the employers' associations and the trade unions at national level. In general, no real differences in the relations between the unions and the employers was observed as a result of the appeals.

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370. The appeals were timed so that to arrive at the Federal Constitutional Court one day before the time in which it is possible to appeal about new acts ran out. In this way, it was felt by many, that the employers had added insult to injury. Interview FTO 6, Aug.'77.


372. The Konzertierte Aktion (KA) had long been a subject of considerable controversy within the Chemical Workers' Union - cf. Protokoll 1972, op. cit., p.405f - and some trade union officials expressed the opinion that they would not be sorry if the trade unions did not return to the KA. Interviews FTO 1 and FTO 6, both Aug.'77.

373. "IG Chemie-Hauptvorstand warnt Arbeitgeber der chemischen Industrie", presse-dienst, Xlii1/28, 13.7.1977. This opinion was also expressed on numerous occasions by both sides in interview and discussions.

Much to the surprise of both employers and trade unions, when the judges of the Federal Constitutional Court finally made their decision, they did not make any statements about which particular level of co-determination would be in line with the Basic Law. Besides turning down the appeals of the employers' associations and the companies, the judges also stated that the Basic Law did not specify any particular form of economic order. (375)

As might be expected, the trade unions were happy with the decision and repeated their final aim of equal co-determination which the judges had agreed did not exist under the current act. The employers will, of course, respect the decision and might seek revision through a change in the law. (376)

The Co-determination Act 1976 allowed two years for the elections to the supervisory board to take place. (377) As a result the elections were complete, with a few exceptions where the status of the company had been challenged in the courts, long before the decision on the constitutionality of the act had been made.

The results of the elections in 57 out of 59 companies from the chemical industry are shown in the following table.

376. Ibid.
Table 2.4

Results of the First Elections to the Supervisory Boards of Companies in the Chemical Industry under the Kitbets. (372)

<table>
<thead>
<tr>
<th>Organisation</th>
<th>Worker Reps.</th>
<th>Staff Reps.</th>
<th>S. Managerial Trade Union Reps.</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>%</td>
<td>No</td>
<td>%</td>
</tr>
<tr>
<td>IG Chemie</td>
<td>112</td>
<td>30.6</td>
<td>38</td>
<td>55.9</td>
</tr>
<tr>
<td>Other DGB Unions</td>
<td>23</td>
<td>16.5</td>
<td>5</td>
<td>7.4</td>
</tr>
<tr>
<td>2GB</td>
<td>-</td>
<td>-</td>
<td>7</td>
<td>10.3</td>
</tr>
<tr>
<td>VA</td>
<td>-</td>
<td>-</td>
<td>2</td>
<td>2.9</td>
</tr>
<tr>
<td>Independents</td>
<td>4</td>
<td>2.9</td>
<td>16</td>
<td>22.5</td>
</tr>
<tr>
<td>Total</td>
<td>139</td>
<td>100</td>
<td>68</td>
<td>100</td>
</tr>
</tbody>
</table>

The DGB trade unions were able to win 71.1 per cent of all the seats, and if the seats for the representatives of senior managerial staff are discounted, which might seem reasonable since the DGB unions were rarely able to even put up candidates for these seats, it can be said that they received 83.5 per cent of the seats. Although such results might be seen as a success, comparison with the overall position within the organisation area of the Chemical Workers' Union shows that it is below average, (380) reflecting perhaps the weakness of the Chemical Workers' Union in some of the larger chemical companies.


379. Due to the fact that some concerns may have works which belong to other industries, the corresponding DGB trade unions which organise the employees in these works often had candidates standing on the same platform as the candidates of the Chemical Workers' Union. cf. IG Chemie, Wohltuung der DGB - Gewerkschaften IG Chemie - IG Metall - IG Druck und Papier zur Aufsichtsratswahl bei Gunther Wagner Felitan in Hannover am 31.1. und 1.2.1973, Hannover, no date (1977).

Has this recent wave of elections to the Supervisory board had any influence on the understanding of the meaning of the word co-determination amongst employees in the chemical industry? Although no final statement can be made on this question, some indication of where the answer might be can be given. The survey of employees in Agrochemie AG late in 1978 included a question with similar wording to that of a survey carried out by Fürstenberg in seven chemical works in 1966.\(^{381}\) In the former survey there was no differentiation in the coding between works and company level co-determination, whereas here such a possibility was introduced. It must be assumed that Fürstenberg coded all replies (if any) defining co-determination as an issue which occurred at company level with those at works level. Nevertheless only 30 per cent of his respondents were coded into this category, compared with 30.2 per cent of the works sample of Agrochemie AG who stated that co-determination occurred at works level and an additional 27.9 per cent who stated that it occurred at company level.\(^{382}\) This large increase in respondents who understand co-determination as occurring either at works or company level might well be a result of the wave of elections to the supervisory board under the recent legislation. The general discussion of co-determination at these levels in the media which occurred.

\(^{381}\) cf. Appendix 2.1, Question 38, and F. Fürstenberg, op.cit., p.283.

\(^{382}\) Ibid. and Appendix 3 Table 49. It is interesting, however, that the percentage of respondents who had little understanding of co-determination had only decreased slightly to just below 20 per cent.
with the introduction of the Works Constitution Act 1972,\(^\text{(383)}\) and the Co-determination Act 1976 might also have been partly responsible for this increase.

Another recent survey in the chemical industry\(^\text{(384)}\) dealt directly with the question of elections to the supervisory board, although under the regulations of the Works Constitution Act. They found that even under this system the turnout at elections was fairly low (66 per cent) and that 50 per cent of respondents did not know what the role of employee representatives on the supervisory board was.\(^\text{(385)}\)

Equal co-determination has been one of the main demands of the West German trade union movement throughout the thirty years of its existence.\(^\text{(386)}\) What do the unions hope to achieve with the fulfilment of this demand? The first aim is the realisation of democracy within industry and the second aim is to secure and increase the freedom of action of the trade unions,\(^\text{(387)}\) particularly through influence on investment.

\(^{383}\) There was little detailed knowledge of the co-determination rights of the works council. Although approximately 40 per cent respondents (Appendix 3, Table 30) named co-determination on personnel matters as one of the roles of the works council, over 50 per cent of respondents were unable to name anything which the works management could not carry out without the permission of the works council. (Appendix 3, Table 40).

\(^{384}\) F. Landwehrmann and R. Albring, \textit{op.cit.}

\(^{385}\) \textit{Ibid.}, p.94ff. As far as is known, no details of the turnout at recent elections in the chemical industry have yet been published. It will be interesting to see whether the hypothesis of certain trade union officials that the complicated electoral system will lead to low turnouts is verified.

\(^{386}\) \textit{cf.} H. Limmer, \textit{op.cit.}, p.80f.

\(^{387}\) \textit{Gewerkschaften und Mitbestimmung, op.cit.}, p.304f. 
Since equal co-determination has yet to be established within the chemical industry it is impossible to measure trade union advantages from co-determination against these aims. It is certain that the flow of information from the supervisory boards to the trade union bodies such as the bargaining committees will be improved, and it is to be hoped that there will be an improved flow of information between the works councils and the employee representatives on the supervisory boards.

Certainly the VAA has consolidated its position as a result of the recent legislation. Although the separate position of senior managerial staff in legislation is not new (388) it has been further strengthened by the Co-determination Act 1976 and it seems likely that the VAA will continue to gain importance as the representative body for senior managerial staff within the chemical industry as a result of this legislation.

According to Bergmann: "co-determination ... became isolated in a prospering capitalist economy and in turn became nothing more than an instrument of social policy ... with dangerous consequences for the unions." (389) This analysis seems correct; indeed, it might even be said that co-determination which is based on co-operation as opposed to conflict is a reflection of the general dislike of conflict within the German trade union movement. (390)

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388. cf. BetrVG 52 Para. 4(2c).
The German trade unions including the Chemical Workers' Union should become more aware of the dangers involved in co-determination especially for their ability to apply sanctions. In particular it should be made clear to the membership that until equal co-determination rights are gained there can be no equal responsibility of the employee and trade union representatives for the decisions made on the supervisory board. Unless this occurs the membership is likely to blame their representatives as well as management for decisions with which they disagree. This could become particularly significant in a stagnant or recessionary economy where redundancies become more likely.

(v) Summary.

The development of industrial relations in the German chemical industry has occurred against a backdrop of the evolution of German society characterised above all by an industrial revolution which was "late, rapid and thorough".

Amongst the consequences of this was state involvement in industrial relations in the form initially of social legislation and later through the introduction of the various forms of co-determination. These are some of the main features of the legalised system of industrial relations.

391. In the Chemical Workers' Union efforts have been made to learn from experience. The number of posts on a supervisory board which any official may hold is limited to two, there are strict regulations regarding payment of fees received to trade union educational funds and efforts are made to select suitable candidates and to school them properly. cf. Protokoll 1976, Anhang, p.199ff. For an analysis of some of the dangers to trade unions involved in co-determination cf. T. Kirkwood and H. Meves, "The Limits of Trade Union Power in the Capitalist Order: The Case of West German Labour's Quest for Co-determination," BTIR, Vol.XIV, No.3, 1976, pp 295-305.
in Germany and both have had consequences for developments within the chemical industry.

Social legislation was the basis for the social paternalism, as it has been called, practised by the major chemical employers from the end of the last century through to the present day. The motivation behind this form of paternalism seems manifold. Not only did the rapid expansion of the chemical industry create a vast demand for labour often on green-field sites so that many of the "benefits" were necessary to attract and retain employees. The technological nature of the industry also led to a predominance of academically qualified managers with a different ideology to the owners and this may also have been significant. Furthermore, the desire to create a workforce loyal to the company was combined with the aim of preventing or at least hindering the development of trade unionism within the chemical industry. The weak base of the unions in the large chemical companies remains one of the major causes of the inability of the Chemical Workers' Union to use sanctions successfully in this industry.

Trade union weakness has also been contributed to by the fragmentation which has existed for many years and which might be considered to exist even today within the system of industrial unionism. The present fragmentation takes the form, however, of a schism within the Chemical Workers' Union basically along ideological lines but which reflects the traditional split between workers and staff magnified by the problem of a large number of works councillors interested in protecting their own
position, often at the cost of the local trade union organisation. This often leads to conflict between the lay officers and the works councillors.

A reaction of trade union leadership within the chemical industry has been to try to counter this fragmentation by increased centralisation within the union. This centralisation which adds further to the weakness of the union locally is also a reaction to the policy of the chemical employers' association which has become increasingly co-ordinated in recent years.

Co-ordination of policy on the employers' side is by no means new, however, to the chemical industry. Large companies have long been a feature of this industry, partly as a result of the late industrial revolution, and partly due to the technology of the chemical industry whereby economies of scale and research costs have only been viable for the larger companies. Close co-operation between the management of the more important firms was reflected in the trend towards cartelisation which culminated in the formation of IG Farben and which led to a co-ordinated policy of resistance to trade unionism.

The importance of a small number of enormous companies and close co-operation between their management was conducive to the relatively early formation of a unified employers' association for the chemical industry, as compared with the establishment of a "unified" trade union movement. These factors have also aided the development of co-ordinated policy and tactics on the employers' side and this has contributed to the dominance
of employers over the trade unions in collective bargaining in the chemical industry.

The technology of the chemical industry has additional consequences for industrial relations. The capital intensive nature of the industry means that wage costs are fairly small with the result that companies can afford to pay good wages and to provide good facilities. This has had a positive influence on the climate of industrial relations within the chemical industry as have the peaceful relations between the lower echelons of management and the workforce. Such relations have been fostered by the large number of managers and supervisors and by the degree of contact they have with the workforce which is generally employed in small groups. Both of these factors are a direct result of the technological nature of the chemical industry.

Future changes to industrial relations in the West German chemical industry may result out of the Co-determination Act 1976 which has increased trade union information on the companies or as a result of the additional influence provided to senior managerial staff by this act.

However, a consideration of the development of industrial relations in the German chemical industry has shown that the technology, industrial organisation and the economic state of the industry have been of great relevance to industrial relations. Therefore, these three features and their influence on current industrial relations are examined in more detail in the next chapter.
Chapter 3

The West German chemical industry – Technological characteristics, industrial organisation, recent economic development and their relevance for industrial relations.

In the first chapter some indication of the diverse nature of the chemical industry was given. The first aim of this chapter is to consider in more detail the technological characteristics of the industry in terms of the range of production systems employed and to examine the effects of this on the type of work in the chemical industry. It is clear that this influences workers' attitudes. (1)

An analysis of the organisation and structure of the industry in which such conditions prevail follows on from this. The background to an understanding of labour relations in the West German chemical industry is completed by a review of its recent economic development.

(1) Technological characteristics.

The chemical industries in both West Germany and the United Kingdom manufacture many thousands of different products, even within the definitions chosen for this study. These products have many different forms, such as inorganic and organic gases, a wide range of liquid chemicals including acids, alkalis, alcohols, paints, medicines, inks, inks,

1. D. Wedderburn, and R. Crompton, Workers' Attitudes and Technology, Cambridge, 1972. Also H. Kern and M. Schumann, Industriearbeit und Arbeiterbewusstsein, 2 vols., Third Edition, Frankfurt and Köln, 1974, although the work of these two authors seems to be rather deterministic, cf. J. Prött, Industriearbeit bei betrieblichen Umstrukturierungen, Köln, 1975, p.25ff. Although technology, industrial organisation and economic development are considered separately it is not intended to imply that they are independent of each other, since this is certainly not the case. However, this method has been selected in order to provide a more understandable approach, each section stressing particular features.
etc., as well as many different types of solid substances, fertilizers, synthetic rubbers and plastic materials, waxes, polishes, tablets, bandages, films and fireworks.

A vast number of different production systems are required to manufacture such a spread of products. One of the most useful categorisations of production systems was developed by Joan Woodward. She identified nine different types of production in her study of South Essex industry.

"I Production of units to customers' requirements.
II Production of prototypes.
III Fabrication of large equipment in stages.
IV Production of small batches to customers' orders.
V Production of large batches.
VI Production of large batches on assembly lines.
VII Mass production.
VIII Intermittent production of chemicals in multi-purpose plant.
IX Continuous flow production of liquids, gases and crystalline substances." (2)

Although chemicals would most usually be produced under categories VIII and IX, other production systems are found such as IV, V, VI(3) and even VII. As far as the chemical industry is concerned the types of process

3. As in the Seagrass chemical works investigated by Wedderburn and Crompton. Since the main German chemical companies have production sites several times larger than this one, an even greater diversification on one site might be expected. D. Wedderburn and R. Crompton, op.cit., p.30ff. For another example of a range of chemical production systems studied, cf. F. Fürstenberg, op.cit., p.16f.
used might be classified into three basic types: batch, semi-continuous and continuous process production. It has been explained above that this study concentrates on the continuous and to a certain extent semi-continuous production systems that are commonly found in the manufacture of basic chemicals.

Subsequent studies by Woodward's team found that batch production systems were very varied and where chemicals are produced the system had much in common with continuous flow processes. Nevertheless some differences in attitudes and behaviour have been found. Generally workers in batch processes, which were more labour intensive and where management activities are apparently more complex than in continuous flow processes, showed a lesser degree of job satisfaction and this had a variety of consequences like high labour turnover and absenteeism.

This consideration of production systems in the chemical industry has been based on British studies due to a lack of similar studies in Germany.

In particular, batch chemical production which has received some limited

4. This does not imply that all plants and works can be placed in one specific category as sometimes a range of different systems are used to make specific products and sometimes the bounds of the categories overlap. cf. J. Woodward, op. cit., p.30 and D. Wedderburn and R. Crompton, op. cit., p.33.

5. Several companies visited also produce pharmaceuticals, fine chemicals and chemical fibres which are often made in batches and which include labour intensive spinning/twisting units and packaging units. cf. S. Cotgrove, J. Durham and C. Vamplew, The Nylon Spinners, London, 1971, also Kern and Schumann, Vol.1, op. cit., p.154ff.


8. D. Wedderburn and R. Crompton, op. cit., p.34f.

9. Nevertheless, it is assumed that the technological nature of the industries are similar enough to permit this since particular chemical processes are not limited to one country.
attention in the UK has been almost totally ignored in German studies. Due to limitations of resources, this investigation does not solve this problem. It is suggested, that a comparative study of industrial relations in batch and continuous flow process chemical works would be fruitful, particularly if it was of a cross-national nature, since this would give some indication whether technological influences on industrial relations extend beyond national boundaries as might be expected.

A number of studies have been carried out in Germany on continuous process work in the chemical industry and the influence of this on industrial relations will now be discussed.

Continuous flow processes, which are often associated with a high degree of automation are considered to represent an advanced and complex level of technology. Advanced technology is believed to have a variety of influences on industrial relations. Some authors have stressed the positive influences of advanced technology, and Fürstenberg claims


to have demonstrated this for the West German chemical industry.\(^{14}\)

This topic is considered at various stages of the thesis based on the empirical findings of the study. It is discussed in depth in the chapter dealing with workplace industrial relations, particularly in terms of employees' attitudes to working conditions in one sector of the chemical industry.

Mickler et al. have identified a number of typical types of job which are carried out in automated chemical works.\(^{15}\) These groups are basically control room operators, plant operators, laboratory technicians and maintenance workers. Less automated plants can also be expected to have unskilled labourers for loading and unloading operations. Other types of jobs within the chemical industry include dispatch as well as the normal range of management services. In particular there are a large number of employees working within research and development. It is important, therefore, to avoid generalisations about the attitudes of employees in the chemical industry since there is such a variety of types of jobs as well as an enormous range of different types of production systems.\(^{16}\)

Continuous process production systems are unavoidably linked with shift work. The reasons for employing continuous process systems in the

\(^{14}\) F. Fürstenberg, op.cit., p.195. Another recent survey in the German chemical industry found that 68 per cent of respondents considered working conditions to be satisfactory or better. Landwehrmann and Albring, op.cit., p.102.

\(^{15}\) O. Mickler et al., op.cit., p.280ff.

\(^{16}\) cf. VCI, Jahresbericht 1978/79, op.cit., p.35.

\(^{17}\) In Chapter 5 the differences in attitudes between production and maintenance workers are considered, and the job breakdown of respondents in the Agrochemie AG study may be found in Appendix 3, Table 1.
chemical industry are manifold. Besides technological necessities arising from the nature of certain chemical reactions, there are also economic ones. Continuous reactions use less energy than discontinuous ones which require cooling down and then reheating. Chemical plant is also very capital intensive and this is expensive so that management wish to achieve maximum utilization of the plant.(18)

The effects of shift work on the lifestyle of the shift worker and his family, as well as his health are well known.(19) Shift work is extensive in the chemical industry, affecting approximately 33 per cent of all employees.(20) However, Fürstenberg found that 58 per cent of employees felt that there were no negative effects on their use of free-time as a result of shift work.(21) Such beneficient results were not achieved in the survey at Agrochemie AG however. There only 31 per cent of shift workers in the works sample saw no disadvantages in shift work.(22)

The discrepancy between these two results might be explained in a number of ways. Not only were different sampling techniques used, so was a


22. cf. Appendix 3, Table 8. (35 per cent of all shift workers questioned).
rather different phraseology. In this investigation disadvantages besides those to free-time activities would be, and frequently were, incorporated.

At Agrochemie AG most respondents stated categorically that the reason for working shifts was purely financial. (23)

"The only reason for working shifts is the money - it's the only advantage". (Interview VL 1, Oct.'78).

"I'm not a skilled man ... so I can't complain about shift work. The pay is good ..." (Interview M 8, Oct.'78).

The main disadvantages were stated to be, particularly when on night shift, a disrupted rhythm of life, bad family life, stomach disorders, lack of sleep during the day and the fact that public entertainment is geared only to day work. In the words of one respondent:

"My whole life revolves around the shift plan ... but I accept it, otherwise I'd have to change my job". (Interview 003, Oct.'78).

Dzielak et al. have shown that differences in trade union consciousness exist between production workers and craftsmen in particular. (24) Most production workers in the chemical industry work shifts of one sort or another. Some significant differences were also found at Agrochemie AG, between day and shift workers. (25) The table below sets out some of the differences which were found.

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23. Other advantages cited included the chance to visit public offices which are only open in the mornings, as well as looking after plots of land they own. (Workforce of agricultural background).


25. Differences in attitudes between production and maintenance workers are discussed in Chapter 5.
Table 3.1.

Differences in actions, attitudes and knowledge between shift and day workers at Agrochemie AG.

<table>
<thead>
<tr>
<th>Action/Attitude/Knowledge</th>
<th>Day Workers (%)</th>
<th>Shift Workers (%)</th>
<th>Significance (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Works Council roles:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Representative</td>
<td>77</td>
<td>50</td>
<td>5</td>
</tr>
<tr>
<td>Agreements</td>
<td>35</td>
<td>23</td>
<td>6</td>
</tr>
<tr>
<td>Safety</td>
<td>27</td>
<td>8</td>
<td>7</td>
</tr>
<tr>
<td>Codetermination on dismissal</td>
<td>23</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>Unfailing attendance at works meetings</td>
<td>58</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Works council sufficient rights</td>
<td>73</td>
<td>90</td>
<td>3</td>
</tr>
<tr>
<td>Attitudes on technical progress</td>
<td>more negative</td>
<td>less negative</td>
<td>0.3</td>
</tr>
<tr>
<td>Skilled man (apprenticeship)</td>
<td>68</td>
<td>22</td>
<td>0.4</td>
</tr>
</tbody>
</table>

These findings seem to indicate that shift work hinders in the acquisition of knowledge, that shift workers are more complacent about the powers of the works council and that many shift workers are unskilled men seeking to improve their income by accepting the negative effects of shift work.

What are the reasons for these differences, and what consequences do they have for industrial relations? One primary reason is probably the influence of unsocial working hours which tire the shift workers and disrupt their lives. It is difficult or even impossible for them to
attend works meetings and trade union educational courses. Within the chemical industry, especially in the more automated plants, low manning levels and isolated workplaces add to the communication problems. In this way, process workers on shift have little opportunity to discuss industrial relations matters and to increase their knowledge in these areas. This leads to a fragmentation of the production workers' attitudes and action; a situation which is not likely to be conducive to co-ordinated industrial action. Shift bonuses and a 42 hour week instead of a 40 hour week also increase the average earnings of production workers on shifts quite considerably. As a result of this the median monthly income of production workers was DM 222 more than that of craftsmen at Agrochimie AG. This could conceivably be another reason for shift workers' job satisfaction.

Shift work is by no means the only factor which influences process workers' attitudes. Technological conditions seem to be conducive, at least in highly automated plants, to clean conditions, a lack of physical work and teamwork within the small work groups. Neverthe­less, other factors influence industrial relations too, such as manage­ment policies—particularly within the West German chemical industry—the effectiveness of works council and trade union representation, etc.

26. It has been argued that communication in automated chemical works is relatively easy. Kern and Schumann, op.cit., p.129. Perhaps this is true as far as central control rooms are concerned, however, these are not universal in the chemical industry.

27. The DM 222 means that process workers earned 13.7 per cent on average more than craftsmen who possessed generally a greater level of qualifications. In Germany this reversal of differentials does not seem to lead to friction as perhaps might be the case in the UK.


29. R.Blauner, op.cit., p.178ff. Working conditions and their influence on industrial relations in the chemical industry are discussed in greater detail in Chapter 5.
It seems, then, that shift work is a contributory factor towards stable industrial relations in chemicals. Since the reasons for shift work are both technological and economic in the chemical industry, it is these basic characteristics which are responsible for the effects of shift work on industrial relations but also on the lives of shift workers.

The level of automation in the chemical industry has increased with developments in process technology. In particular the introduction of electronic instrumentation to measure the process conditions, the development of computers and central control rooms have had a large influence. A major advance prior to this was the changeover from batch to continuous processes, and it was this change which prompted the introduction of better control systems. However, it was not until after the Second World War that electronics had developed to the level that such refinements as automatic registration of the whole reaction in a centralised control room were possible.

In this context the attitudes of employees in the chemical industry towards technological change deserve consideration. The results of the findings at the Agrochemie AG are presented here and compared with those which have been obtained in other studies carried out in the chemical industry in order to gain a wider view of opinions.

31. For an interesting discussion of these developments which go beyond the scope of this study cf. Ibid., pp.50-61, 85-101 and 114-139.
Kern and Schumann determined in their study of the influence of technical change on workers' ideology that workers were generally unable to place their own experiences into an overall framework so that their attitudes were primarily formed by these limited experiences. In order to put the attitudes of respondents at Agrochemie AG into perspective the mechanism of technological change there is first reviewed. Although company managerial practices will have a significant influence on the mechanism of change, many methods used at Agrochemie AG may be found generally within the West German chemical industry.

The major impression gained during the study was a lack of knowledge amongst all but relatively senior management on the mechanism of introduction of new technology. However, at Agrochemie AG no large wave of technological improvements had been carried out since 1968. A plant manager did summarise the methods used to introduce minor innovations:

"Technological improvements are developed jointly by the engineers and the chemists. A cost/use analysis is carried out and permission to carry out the changes is obtained from senior management. It is best to talk to the men at this stage. If they react in a negative way I rethink the plans but do not necessarily abandon them, since simplification is required in the explanations and they can't be expected to have a valid opinion on everything. When the new piece of equipment has been fitted the men are then taught how to use it. We tried handing out written instructions but this was unsuccessful, so I now explain it verbally to the four senior operators and they pass on the information to the others." (Interview M 10, Oct. '78).

33. This statement is based on the background studies on workplace industrial relations and the author's own experience working in the industry.
34. A question on this subject was asked (cf. Appendix 2.1.1, question 10) in order to gain this information.
35. Interview M 3, Oct.'78.
36. This plant was relatively small and did not have shift supervisors.
Some respondents did say that this system did not function fully since they occasionally turned up on a job, for example on night shift, to discover something had been changed which they knew nothing about. (37) Others agreed that there was room for improvements in the system of introducing new technology. (38)

Prott reviewed the variety of effects which the introduction of new technology might have. (39) These ranged from increases and decreases in the qualifications necessary for the job; a polarisation of working conditions; a decreased feeling of job security; increases in mental but decreases in physical stress, whilst in other cases more physical stress and an increase in shift work.

At the Agrochemie works manning levels were strictly controlled. Permission had to be obtained from the company executive board to take on extra labour. The board had also imposed the last wave of rationalisation on the works and this had resulted in a reduction in manning of around 10 per cent despite the resistance of local management. (40) Indeed over the period of a decade manning on some plants had been reduced by around 50 per cent (41) and the impression was gained that over this time around 100 jobs (ca. 20 per cent) had been lost although no exact figures were available.

37. Interviews 004 and 005, both Oct.'78. General satisfaction was expressed, however, in the workings of the employees' suggestion scheme whereby employees' recommendations which lead to improvements in the process are rewarded by the company.
38. E.g. Interview M 9, Oct.'78.
40. Interview M 2, Oct.'78.
41. Interview M 8, Oct.'78.
These experiences are clearly reflected in opinions expressed at the works on the effects of technological change. Of the types of changes to work loads mentioned by respondents in the works sample, 46 per cent covered increases in work load as a result of decreased manning, a figure which represents 58 per cent of those respondents stating there had been changes. (42) In addition 74 per cent of the works sample believed that one of the results of technological progress would be unemployment. (43)

These results contrast considerably with Fürstenberg's findings. None of his respondents mentioned an increase in work load as a direct result of a reduction in manning, and only 24 per cent said there had been an increase. (44) He also reports that 59 per cent of respondents viewed technological progress as leading to positive effects. (45) Results of this order were found in several studies carried out in the late 1960's, not only within the chemical industry but more generally too. (46)

What are the reasons for such a marked change in the assessment of technological progress within just over a decade? One answer must certainly be sought in the different economic climate present in West Germany since 1975. Unemployment for so long eradicated in Germany returned with a vengeance during the slump brought about by the oil crisis. (47) With it returned the fears of redundancy and anything which

42. Or 36 per cent of all respondents. cf. Appendix 3, Table 3.
43. cf. Appendix 3, Table 10.
44. F. Fürstenberg, op.cit., p.261.
45. Ibid., p.272.
47. See discussion below.
might bring it about. Another answer might be found in an increased awareness of some of the potential dangers of technological change which could conceivably have resulted from the major disputes in the German printing industry in 1977 and 1978 which were concerned primarily with the introduction of new technology. (48)

Such a range of technological changes could never have been introduced without a commitment to research and development within the chemical industry. Such investment in research and development (49) requires high gross profit margins. As Haußchel has shown for BASF it is very difficult to determine exactly what profit rates are earned in the chemical industry. (50) Since his analysis was carried out additional methods of disguising profits have been introduced in the form of social balance-sheets. (51) Research and development costs are high as evidenced by expenditure at BASF of DM 682 millions in 1976 (52) and also by a survey of companies employing 80 per cent of employees in the chemical industry determined that these companies spent DM 3900 million in 1977. (53) These costs are covered by increasing the prices of chemicals to ensure that the gross profit margins are high enough to finance the research and development.

52. BASF, Geschäftsbericht 1976, op.cit., p.7.
Another characteristic of the chemical industry which uses continuous process and to a lesser extent batch process technology is a high degree of capital intensity. Capital intensity can be measured by the amount of capital employed per employee, and it has been shown that the chemical industry in Germany has employed around double the capital compared with all industries on average throughout the period 1970 to 1975.\(^{(54)}\)

This has a number of consequences for industrial relations. There is a direct relationship between capital intensity and the importance of labour costs within an industry. In the chemical industry wage and salary costs have generally been several per cent of turnover lower than the average for all industries.\(^{(55)}\) Total labour costs have been higher due to a range of additional costs, some as a result of collective agreements and others paid by the employers as part of their system of welfare benefits.\(^{(56)}\) In this way, in 1975 total labour costs were 24.3 per cent of turnover in the chemical industry, whilst wages and salaries were only 21.6 per cent. Total labour costs for industry on average were 27.2 per cent in 1975.\(^{(57)}\) The consequence of these relatively low labour costs is that management is more able to pay wage increases than industries where labour costs are more significant. This provides the employers with more flexibility in their negotiations with the trade unions than in many industries.

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54. Projektgruppe Gewerkschaftsforschung, Vol.2, 1979, op.cit., p.371. For example in 1976, 140 000 DM per employee in the chemical industry and 76 000 DM per employee in all industries.


56. For a breakdown of labour costs see Zahlen zur Sozialpolitik, 1979, op.cit., p.54.

Another probable effect of high capital costs, especially where de-
preciation of the plant is rapid, as is often the case in the chemical
industry, would be a desire to ensure maximum usage of the plant.\footnote{58}
This involves keeping down-time to a minimum, whether it be caused by
cleaning, maintenance or industrial action. The need to keep plant on
stream should therefore be conducive to concessions from management in
their dealings with trade unions. However, on two occasions in Germany
employers have accepted the union challenge and have been prepared to
risk the consequences of a strike, despite the possible high costs.\footnote{59}
In such cases it is likely that hopes of keeping plant running despite
the strike, a possibility which is discussed at a later stage of the
thesis, together with other possible gains such as the value of defeat-
ing the union on such a major issue outweighed the consequences which
might have resulted.

In summary it might be stated that despite a wide range of products and
processes in the chemical industry, generally continuous process pro-
duction systems are used, particularly in the heavy chemical sectors of
the industry. This has a number of direct consequences for industrial
relations. High technology influences the type of jobs and continuous
process systems lead specifically to a high degree of shift work. In
particular shift workers show a lesser awareness of industrial relations
matters, such as details of co-determination and works council matters.
Due apparently to a high income despite low educational qualifications
they are also fairly satisfied with their jobs.

\footnote{58. Interview MAN 3, June '79.}
\footnote{59. 1971 and 1977. cf. Dzielak et al., \textit{op.cit.}, and Projektgruppe
Gewerkschaftsforschung, 1978, \textit{op.cit.}.}
Working conditions can sometimes be improved by technological advances and this seems especially the case in centralised control rooms on chemical plants. Despite this, respondents interviewed were sceptical of the long term advantages in technological progress. These contradictory results probably arise from the limited experiences of the respondents.

Continuous process technology is also synonymous with capital intensity and this in turn seems to increase the room of management to manoeuvre in industrial relations matters on the one hand whilst tying their hands on the other. The type of industrial organisation found in this capital intensive industry and the effects it has on industrial relations are discussed next.

(ii) Industrial organisation.

a. Concentration and size of establishment.

One of the primary features of the industrial organisation of the West German chemical industry is the high degree of concentration. This topic has already been touched upon in the consideration of employers' associations above, and it is now analysed in greater detail.

According to the criteria of the West German monopolies commission, concentration ratios are defined by the percentage of industrial turnover resulting from the three largest companies in the industry. There are

60. See Chapter 2, Section (iii)a.
three categories, very highly concentrated (50 per cent or more of turnover), highly concentrated (25-50 per cent) and moderately concentrated (less than 25 per cent).\(^{61}\) It follows from this that the West German chemical industry should be classified as highly concentrated since the three companies with the highest turnovers accounted for 27.5 per cent of turnover in 1973. Other industries in Germany varied from 3.3 per cent to 82.9 per cent.\(^{62}\)

It seems that the relative degree of concentration is rather low in international comparison since the chemical industry in West Germany takes up eleventh place as against fifth place on average internationally.\(^{63}\) This might be the result of higher than average concentration ratios in West German industry in general and a relatively broad base to the industry in terms of the numerous large companies in West German chemical industry.

Although it is not simple to state to which industry a mammoth company belongs, and it is difficult to know whether to count daughter companies too, about 25 companies in the FAZ list of 100 largest companies have substantial interests in the chemical and allied industries.\(^{64}\) This seems comparable with the figures of 23 chemical companies out of 95 obtained in another study; these same companies accounted for 38 per cent of total capital of the companies in the survey.\(^{65}\)

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62. The Woodworking and Aircraft Manufacturing industries respectively. \(\text{Ibid.}\), pp.603-5.
64. cf. M. Kruk, "Die hundert größten Unternehmen, 18th Edition, \(\text{FAZ, 4.9.1976, Nr.197, p.15.}\)
The importance of large chemical companies from West Germany is also indicated by 17 out of the 200 largest in the world originating there.\(^{66}\)

Furthermore the 50 largest German chemical companies cover 68.4 per cent of the industry in terms of turnover,\(^ {67}\) although there were around 2700 public companies active in the chemical industry in 1977,\(^ {68}\) and in 1975 around 50 per cent of companies employed less than 20 people.\(^ {69}\)

The West German chemical industry is highly concentrated and a small number of companies dominate the industry as far as turnover is concerned. The influence of this domination of the industry by a relatively small number of companies on the distribution of employment in the industry is also of importance to industrial relations.

It was shown above that 68 per cent of employees in companies organised by the chemical employers' associations work in companies with more than 2000 employees. There are around 60 such companies.\(^ {70}\) This agrees effectively with the monopoly commission report which shows that the 50 largest companies employ 64.5 per cent of the chemical labour force.\(^ {71}\)

A similar picture emerges when the size of chemical establishments is considered as in the table below.

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\(^{66}\) Cs 200, 1979, op.cit., p.54ff.

\(^{67}\) Monopolkommission, op.cit., pp.603-605.


\(^{69}\) Ibid., pp.110-113, and p.160, own calculations.

\(^{70}\) VCI, Jahresbericht 1975/76, op.cit., p.57.

\(^{71}\) Monopolkommission, op.cit., pp.603-605.
Table 3.2.
A Comparison of Establishment Size in the West German Chemical Industry and Manufacturing Industry in 1976. (72)

| Establishment Size | Establishments | | | Employees | | |
|--------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| 1-19               | 2608            | 62.6       | 57.9            | 14845        | 2.5            |
| 20-49              | 608             | 14.6       | 17.9            | 19442        | 3.3            |
| 50-99              | 331             | 7.9        | 10.0            | 23615        | 4.0            |
| 100-199            | 229             | 5.5        | 6.5             | 31590        | 5.4            |
| 200-499            | 207             | 5.0        | 4.8             | 63165        | 10.8           |
| 500-999            | 88              | 2.1        | 1.6             | 61899        | 10.6           |
| 1000 and more      | 95              | 2.3        | 1.1             | 369042       | 63.6           |
| Total              | 4166            | 100        | 100             | 583598       | 100            |

The large establishments in the chemical industry, although relatively few in number (95) account for around 64 per cent of chemical employment, which is far greater than the percentage for manufacturing industry on average.

The reasons for the size of companies and establishments are manifold. As far as the three major production sites are concerned, there were historical reasons for their selection and growth which have been discussed above. (73) Other reasons may be found in the rate of technological change; the economies which are introduced by increasing the size of chemical plant; the interlinked nature of much chemical manufacture which makes the location of a number of plants on the same site advantageous; and the facilitation of managerial, administrative and research economies. Many of these arguments may be found in a consideration of

73. cf. Chapter 2, Section (i).
Another common feature of large companies in highly concentrated industries is that their productivity should be considerably higher than that of smaller companies. In the case of the chemical industry there seems to be only a slight improvement in productivity as reflected by the fact the percentage of turnover of the large companies is only slightly greater than the percentage of the chemical workforce that they employ.\(^{(74)}\)

This can be explained in a number of ways. The rate of technological advance in the chemical industry is particularly fast and this requires a high degree of expenditure on research and development. Research and development is concentrated therefore on the large companies which are more able to afford it. Thus Hoechst spent DM 1044 millions on research and development in 1977, around a quarter of which was on environmental research, and it employed 14000 people in these areas.\(^{(75)}\) Such employees contribute little to the current productivity of the company but are crucial to its future survival. This introduces the concept of the importance of the workforce structure to a consideration of the productivity and indeed the labour relations of an industry. Before returning to this subject it is necessary, however, to consider what immediate effects the concentration of the chemical industry and the size of companies has on labour relations.

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74. Projektgruppe Gewerkschaftsforschung, Vol. 2, 1979, *op. cit.*, p. 299. For a further consideration of productivity in the West German chemical industry see below.

The concentration of the chemical industry is of particular significance to the employers' organisations since it facilitates co-operation between company managements on economic, trade, political and industrial relations matters. Major policy decisions are taken on the boards of a very few companies, often in consultation with one another through directors who sit on numerous executive or supervisory boards, and yet these decisions affect the great majority of employees in the chemical industry.

In this way it is possible for management to decide collectively to resist union or works council pressure on a whole range of issues such as wages, forms of payment, work regulations, etc. The relatively low degree of competition within the chemical industry (76) which is due partly to the concentration but also to the diversification of companies into specific product areas (77) has also meant that the economic pressure on management to cut costs has not been so great as in more competitive industries. This pressure is also reduced as far as labour costs are concerned by the capital intensive nature of the industry.

One immediate effect of the size of companies and establishments on their labour relations can be found in works council and co-determination legislation. Provisions for works councils only exist on establishments with five permanent employees. (78) No figures exist for the number of such chemical establishments but in 1975 44 per cent of them had less than

76. Interview FTO 13, Sept. '77.
77. See the discussion of the diversification of companies below.
10 employees\(^{(79)}\) so it can safely be assumed at least 25 per cent of establishments have no works council. Discussions indicated furthermore, that few establishments with less than 50 employees actually used the legal provisions for a works council. This would mean that approximately 75 per cent of chemical establishments are without a works council, although this affects only about 5 per cent of the chemical labour force.\(^{(80)}\)

An economics committee to watch over the financial state of the company, production levels and plans, rationalisation plans, mass redundancies and many other matters, may only be formed in companies with more than 100 employees.\(^{(81)}\) In smaller companies the provisions for consultation and information of the works council lack teeth.

As far as provisions for co-determination at company level in its various manifestations are concerned, company size is again of paramount importance. Limited liability companies must have 500 employees before the employees received one third representation on the supervisory board.\(^{(82)}\) In addition the Co-determination Act 1976 only applies to public companies with more than 2000 employees.\(^{(83)}\)

All these legal provisions are based on the size of the company or the

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80. See Table 3.2 above.
82. BetrVG 1952 Para 77.
83. cf. Chapter 2, Section (iv).
establishment and although the simple provision of statute does not solely determine the character of labour relations, such features are not without significance either in workplace relations or as far as the unions are concerned in collective bargaining since they partly determine the amount of information available.

In the United Kingdom respondents from the chemical industry often stated that the size of establishment was a significant factor in determining the nature of industrial relations on a site. It was generally believed that relations were less personal and consequently often more prone to instability on sites with more than 200 to 300 employees. (84)

In the Federal Republic on the other hand, it was believed that other factors were at work which changed the character of labour relations in a different way. One major factor which respondents felt was associated with company size was management style. Small companies, often still run by owner-managers, tend to use outdated management approaches which demand servility and obedience from their employees and which resist trade unions and works councils. (85) However, large companies especially Bayer, BASF and Hoechst employ much subtler policies in their dealings with works councils and unions. They try to bind their employees to the company by increasing their dependance on the firm through such measures as company housing, financial loans, other welfare benefits and plus-rate payments. (86) Such measures induce a high degree of

84. Interviews TU 2, MAN 4, both June '79; MAN 7, April '78; TU 13, August '78. One respondent did put the change-over point at around 500 employees, Interview MAN 5, June '79.
85. Interviews FTO 13, Sept.'77; BRV 11, BRV 12, and FTO 15, all Nov.'78.
86. These influences become particularly critical in a strike situation cf. Dzielak et al., op.cit., passim and especially p.383ff.
satisfaction, particularly with the level of wages which is well above average. In 1978 average hourly gross earnings in the chemical industry were 8.2 per cent higher than for all industries on average.\(^{87}\) The result of this is a general lack of militancy of employees in these companies and the trade union has had difficulty in mobilising their members for strike action.\(^{88}\)

This creates problems primarily for the union but also for the works councillors. The size of companies and establishments can further increase these difficulties which are created by management policies. The size of the works council and the number of full-time councillors depends on the size of the establishment. Where there are over 10000 or more employees there is only one full-time councillor for each additional 2000 employees.\(^{89}\) The bureaucracy which seems to be involved in the job seems to lead to an alienation of the full-time works councillors from the workforce primarily because of a lack of contact. Even many works councillors who prior to election had been highly critical of such developments become caught in the same way.\(^{90}\)

Communications for the unions and the works councillors are made difficult

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88. Interviews BRV 1 and FTO 6, Aug.'77; FTO 11, BRV 4 and BRV 5, all Sept.'77. For the total failure at Bayer and Hoechst in 1971 cf. Dzielak et al., op.cit. For the more successful development at BASF in 1977 cf. Projektgruppe Gewerkschaftsforschung, 1978, op.cit.
89. cf. BetrVG 1972, Para 38.
90. Dzielak et al., op.cit., p.453ff. Indeed the workings of the whole works constitution act might be described as a bureaucratisation of industrial conflict.
by the physical size of the major sites, and by the fragmented and scattered nature of the production plants. Shift work, necessary because of the form of chemical production and for economic reasons, adds further to these communication difficulties.

One solution introduced to attempt to combat these communication difficulties is the post of plant representative. This is a representative elected by all employees who is subordinate to the works council. The failure of many of these representatives to support union policies is considered to be one of the reasons for the poor degree of union organisation in the large chemical works with the notable exception of BASF. Other reasons for a low union density might be found in the insufficient number of organisers in the many scattered plants and in works council resistance to a strong union organisation for fear of a weakening of their own position.

b. Workforce structure.

The degree of trade union organisation in the chemical industry does vary, of course, according to the various occupational groups. The workforce structure of the larger chemical companies includes large numbers of such groups who are traditionally difficult to organise into trade unions, in particular office and to a lesser extent technical

91. The Bayer site which is not the largest in Germany covers 18 km$^2$. Interview BRV 1, Aug.'77. A large number of respondents mentioned these communication difficulties. e.g. Interviews FTO 7, Aug.'77; FTO 10 and BRV 5, both Sept.'77.

92. For the controversy within the Chemical Workers' Union see Chapter 2, section (ii) above. Membership density in these works in 1977 was 34.4 per cent at Hoechst, 37.4 per cent at Bayer and 66 per cent at BASF. H.G. Lang, "Innergewerkschaftliche Auseinandersetzungen bei Bayer, Hoechst und BASF", in O. Jacobi, W. Müller-Jentsch, E. Schmidt (eds.) Arbeiterinteressen gegen Sozialpartnerschaft, Kritisches Gewerkschaftsjahrbuch 1978/79, Berlin, 1979.
As was indicated above the labour force structure is one of the features of the industrial organisation of the chemical industry which has a bearing on its labour relations. The actual workforce structure seems to vary according to the particular sectors of the chemical industry which individual companies operate in and between types of company. Some indication of the range of workforce structures in the chemical industry is given in the table below.

Table 3.3.


<table>
<thead>
<tr>
<th>Workforce</th>
<th>Percentage of groups</th>
<th>Blue Collar</th>
<th>White Collar (a)</th>
<th>AT</th>
<th>LA</th>
<th>Academics</th>
</tr>
</thead>
<tbody>
<tr>
<td>All Industries</td>
<td>71.4</td>
<td>28.1</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Chemical Ind. (b)</td>
<td>56.5</td>
<td>43.3</td>
<td>8.9</td>
<td>4.0</td>
<td>3.8</td>
<td></td>
</tr>
<tr>
<td>Chemical Ind. Niedersachsen (c)</td>
<td>65.0</td>
<td>32.5</td>
<td>4.4</td>
<td>2.9</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Hoechst (d)</td>
<td>54.0</td>
<td>42.7</td>
<td>6.6</td>
<td>5.0</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Chemical Ind. Baden-Württemberg (e)</td>
<td>60.5</td>
<td>38.0</td>
<td>7.0</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
</tbody>
</table>

93. Interviews BRV 4 and BRV 5, both Sept. '77. Also cf. Appendix 1, Table 3 below.

94. Pharmaceuticals have a very high percentage of white collar staff and synthetic fibres and rubber have very few. Interviews ER 3 and ER 6 both Aug. '77.

95. (a) Total percentage of white collar workers including the groups senior salaried staff (AT), senior managerial staff (LA) and academics but excluding owners.

(b) Zahlen zur Sozialpolitik, 1979, op. cit., p.10f.

(c) Survey carried out by Chemical Employers' Association in Niedersachsen of around 150 establishments covering around 85 per cent of employees in the association's member companies. Average size of establishment ca 210.


(e) Figures for employees of companies which are members of the Chemical Employers' Association in Baden-Württemberg, Arbeitgeberverband Chemie Baden-Württemberg, op. cit.
The striking feature which emerges is that the chemical industry has such a high proportion of white-collar staff except in Niedersachsen where small establishments mainly engaged in the production side of the industry predominate. On such sites the percentage of white-collar staff may even drop as low as 25 per cent as at Agrochemie AG. This is only the case because there is no sales department and only a very small research establishment, for it is these two areas which particularly contribute to the large number of white-collar staff within the West German chemical industry. This is illustrated by the figures for Baden-Württemberg which are in the middle of the range. There is an absence of particularly large companies in this region with only 49.4 per cent of employees working in establishments which employ more than 1000 people. This reduces the number of salaried staff but not as much as in Niedersachsen due to the large concentration of pharmaceutical companies in Baden-Württemberg which tends to act as a counter-balance due to the high number of sales staff.

The percentage of white-collar workers has been increasing fairly steadily for quite a number of years. A number of factors were recently identified as the reasons for this as far as Hoechst was concerned. Technological progress had reduced the number of manual jobs at the same time increasing the number of positions which require a high level of training. This is particularly true in the production areas.

96. Interviews ER 3 and ER 6, both Aug.'77.
97. Arbeitgeberverband Chemie Baden-Württemberg, op.cit. This percentage is an overestimate of the actual importance of large establishments since many small firms are not members of employers' associations.
but also more recently within offices given further extensions to automatic data processing. In addition trends towards centralisation of administration and expansion of overseas activities have increased the number of staff in these areas.\(^{99}\) The technological nature of chemical production generally results in there being a high proportion of supervisory staff involved in production, basically due to the small size of work groups and shift work.\(^{100}\) In general terms one consequence of these changes has been a slight increase in the percentage of technical as opposed to office staff.\(^{101}\)

What consequences does this high percentage of white-collar staff have for industrial relations in the West German chemical industry?

The influence of the large number of managerial staff in the chemical industry has already been discussed above. In particular it has influenced relations between senior/middle management and top company executives with employee associations, leading to collective bargaining and the formation of representative committees for senior managerial staff. Furthermore, relations between management and the workforce have been affected positively by the close contacts which often exist within the production areas.\(^{102}\)

White-collar staff can be further sub-divided into two groups - technical

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100. As a result of this Bayer employs about 1500 supervisors. Interview ERV 1, Aug.'77. At Hoechst there were 2900 leading hands in 1976. Personalbericht Hoechst 1976, op.cit., p.72.
102. cf. Chapter 2, Section (iii)b.
and office staff. The actual percentage of each group varies according to the structure of the section of the chemical industry under consideration. About 50 per cent of staff at Hoechst are office staff as opposed to 56 per cent in Niedersachsen and 59 per cent in Baden-Württemberg. These differences can perhaps be explained by research intensity and the size of sales and advertising departments. The large number of white-collar staff has an immediate consequence on industrial relations in the chemical industry since they have proved difficult for the trade unions to organise. This is particularly true for the sub-group of office staff.

Bain discusses the traditional aversion of white-collar workers to join trade unions in his analysis of the growth of white-collar unionism in the UK. He rejects the commonly stated idea of a particular 'mentality' of white-collar staff as the reason for the traditional lack of organisation amongst these employees. However, in West Germany white-

103. For a discussion of the types of jobs and qualifications carried out by these two groups of, U. Kadritzke, Angestellte-Die geduldigen Arbeiter, Frankfurt and Köln, 1975, p.95ff. The group office staff includes salesmen and others who do not necessarily work in an office.


107. For example 8.5 per cent of the workforce at Hoechst is employed directly on research, together with around 20 per cent more in technical operations. 13.0 per cent of the workforce is employed in the sales organisation. Personalbericht Hoechst 1976, op.cit., p.75. The pharmaceutical companies in Germany (concentrated in Baden-Württemberg) are renowned for having an enormous sales and advertising organisation.

108. Interviews BRV 1, ER 6, both Aug.'77 and ER 4, FTO 10, FTO 11, all Sept.'77, FTO 16, FTO 17 both Feb.'78. This discussion deals with membership in the industrial union since managerial (VAA) and staff unionism (DAG) have been discussed above.

109. G.S. Bain, The Growth of White-Collar Unionism, Oxford, 1970, p.40ff. The main factors which this study identifies are the degree of employment concentration, the degree to which employers are willing to recognise white-collar unions and the extent of government action promoting union recognition. Ibid., p.183ff.
collar status has a traditional significance which still seems to have some bearing upon their willingness to join trade unions.\(^{110}\) Evidence that this lack of willingness to be organised on the part of white-collar staff still exists, although it is decreasing, may be found by comparing the membership densities of wage and salary earners in the organisational area of the Chemical Workers' Union. Less than 30 per cent of salaried staff are members of the Chemical Workers' Union as opposed to around 70 per cent of wage earners.\(^{111}\)

Furthermore women who generally prove more difficult to organise than their male colleagues\(^{112}\) make up a higher proportion of white-collar staff than they do of wage earners. Thus, in 1975 20.6 per cent of wage earners in the chemical industry were women compared with 31 per cent of white-collar staff.\(^{113}\) At Hoechst, for example, the female staff employees are concentrated in the offices, and this might be one reason for the lower union membership density in this group.\(^{114}\)

An additional explanation for the greater propensity of technical staff to join unions might be that they are more likely to come into contact with production workers, or may indeed be employed within this area itself. In this way they may be influenced by their work situation.

\(^{110}\) The author had evidence of this during his own period of employment within this group of workers. These experiences were subsequently confirmed by a large number of respondents, especially Interviews FTO 16 and FTO 17, Feb.'78.

\(^{111}\) cf. Appendix 1, Table 3.

\(^{112}\) cf. Ibid. For a historical view of women in German trade unions of G. Lossef-Tillmanns, Frauenemancipation und Gewerkschaften, Wuppertal, 1978, and on the reasons for a low level of organisation especially p.61f.

\(^{113}\) GB 72-75, op.cit., p.295, own calculations.

\(^{114}\) 45.2 per cent office staff were female compared with 12.2 per cent of technical staff. Personalbericht Hoechst 1976, op.cit., p.78.
Another consequence for industrial relations beyond the weakness of union organisation within the white-collar groups has been the trend towards status harmonisation. Although the differences between wage and salary earners are firmly fixed in German insurance law (115) the chemical industry has perhaps gone further than any other in West Germany to reduce the differences which traditionally exist between white-collar and blue-collar workers. (116) As a British study team discovered in a visit to the German chemical industry,

"there are very few distinctions in conditions of service in the tariff agreements and all employees are treated equally over holidays, payment for overtime and hours of work. The tariff provides different pay scales for both employee categories but in one company a unified pay scale had been agreed." (117)

Indeed, a joint union-employers committee is working nationally on the question of unified pay agreements for white-collar and blue-collar workers. This committee is due to present an interim report at the end of 1979. (118) Although this committee does not have a simple task it is a necessary one for many paradoxes exist in this region in the chemical industry. For example, a very highly qualified control room operator who is responsible for watching over and steering a whole chemical plant is a wage earner whilst a junior secretary is a member of the staff. (119)

Such trends are not without their opponents, however. Some officials

116. Interview FTO 16, Feb. '78.
119. Both employers' and union representatives cited this example. Interviews ER 3 and FTO 6, both Aug. '77.
of employers' associations believed they would lose the positive influence of the lack of militancy of white-collar staff if they are treated in the same way as workers.\(^{120}\) Officials of the German Salaried Staff Union also oppose it\(^{121}\) since it is likely to cut the ground from under the representation of staff as a separate group.

A further feature of the workforce structure of the chemical industry is the under-representation of workers who have completed an apprenticeship.\(^{122}\) These skilled workers have long trade union traditions in Germany, and even in the chemical industry have formed the core of support for strike action.\(^{123}\) Nevertheless the smaller size of this group does contribute to trade union weakness within the chemical industry. As a result of a lack of skilled immigrant workers, immigrant labour is not a particularly important feature of the chemical industry since in 1979 it only employed 2.9 per cent of the foreign labour in the Federal Republic as compared with 7.5 per cent of people in employment.\(^{124}\)

This reflects the relatively qualified nature of employment in many sectors of the chemical industry. One respondent stated that there were no difficulties in relations with foreign workers since the number employed was small and all had to speak fluent German because of safety problems.\(^{125}\) However, others did admit that difficulties can occur

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120. Interview ER 6, Aug.'77.
121. Interview FTO 13, Sep.'77.
122. 34 per cent in the chemical industry compared with 40 per cent on average. Projektgruppe Gewerkschaftsforschung, Vol.2, 1979, op.cit., p.440.
123. Dzielak et al., op.cit., p.374.
125. Interview CM 1, Aug.'77.
both at work, particularly in the safety area, and socially - housing presented a particular problem.\(^{126}\)

Despite this, figures from Hoechst show that immigrant labour can serve as a buffer in times of economic decline. Due to a high fluctuation rate,\(^{127}\) a decision not to replace those workers which leave is an effective way of reducing manning levels. In this way the percentage of workers from foreign countries at Hoechst was reduced from 28.4 per cent at the end of 1974 to 20.5 per cent in December 1977.\(^{128}\) In 1977 alone some 1450 foreigners left Hoechst's employment.\(^{129}\)

The position of the trade unions under such circumstances is difficult for although many foreign workers are members,\(^{130}\) their German members press for the foreigners to be made redundant first.\(^{131}\) Indeed, foreigners are very poorly represented amongst officials of the Chemical Workers' Union. Only 4.6 per cent of works councillors are foreign as compared with 11.6 per cent of the membership.\(^{132}\) This can lead to misunderstandings between members and a failure to use the potential of the foreign members during conflict situations.\(^{133}\)

\(^{126}\) Interviews CM 10 and CM 12 both Nov.'78.


\(^{130}\) 56.6 per cent in 1975 for the organisational area of the Chemical Workers' Union. *Dzielak et al.*, *op.cit.*, p.540.

\(^{131}\) Interview FTO 12, Sept.'77. For a more general account of foreign labour and trade unions *of. S. Castles and K. Godula, "Immigrant Workers and Trade Unions in the German Federal Republic", Radical America, Vol.8, 1974, No.6, pp.55-77.

\(^{132}\) *GB 72-75, op.cit.*, p.299ff and Appendix 1, Tables 2 and 4, own calculations.

\(^{133}\) *of. Dzielak et al.*, *op.cit.*, p.254ff.
Various features of the structure of the chemical labour force have been seen to have a significance for industrial relations. In particular, trade unionism is weakened by a failure to organise strongly the large group of white-collar staff, by the relatively small number of skilled workers in the chemical industry and by a failure to represent and understand the interests of foreign workers.

c. Major companies and Product diversification.

There are a number of ways of defining diversification, but the one most useful for our purposes is the number of "basic areas" of production in which the company operates. The actual number of products manufactured by a chemical firm may be large, however, if they are all classifiable under one particular sector, then this would give a false picture of diversification.

In the table below, the range of "basic areas" of production of most large West German chemical companies is given. It can be seen that with the exception of Bayer, BASF and Hoechst firms tend to be fairly limited in their range of production.

The range of product areas of specific companies is usually traceable to the historical development of the companies, and thus in the middle sized and smaller companies activities tend to be limited to specific areas. In this way Degussa is still strong within the area of precious metals but has expanded into such sectors as metallurgical products.

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135. All but one of these companies had a place on the Chemical Age 200 largest chemical companies in the world list. cf. CA 200, 1979, op.cit.
Table 3.4

Diversification within leading companies in the West German chemical industry (196)

<table>
<thead>
<tr>
<th>Company</th>
<th>Patents</th>
<th>Fine Chemicals</th>
<th>Plastic, rubbers, etc.</th>
<th>Aeronautical, aerospace, etc.</th>
<th>Other Chemicals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bayer AG</td>
<td>28.5%</td>
<td>25%</td>
<td>15%</td>
<td>11%</td>
<td>9%</td>
</tr>
<tr>
<td>C. H. Boehringer &amp; Co.</td>
<td>26%</td>
<td>25%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>E. Merck</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Kalle-Chemie AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Kärntner AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Henkel Chemiker AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Kalle und Säure AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Hoechst AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>I. H. Geodeshieldt AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
<tr>
<td>Weker Chemie AG</td>
<td>22%</td>
<td>22%</td>
<td>11%</td>
<td>11%</td>
<td>10%</td>
</tr>
</tbody>
</table>

Table 3.4

Diversification within leading companies in the West German chemical industry (196)
Wacker Chemie on the other hand, gained importance during the First World War because of a process to manufacture acetaldehyde, and it still has considerable interests within this area.\footnote{138}

The main advantage of a highly diversified production palette is the degree of economic stability provided. Various sectors of the German chemical industry were affected to different extents by the economic recession in the mid 1970's,\footnote{139} and companies which lacked diversification suffered badly. This is particularly true of the fibres sector where world-wide overcapacity caused considerable problems.\footnote{140}

As might be expected such developments are not without consequences as far as industrial relations are concerned. The case is perhaps best illustrated by Enka Glanzstoff, which as can be seen from the table above, is limited in its activities to the fibres sector. The economic problems led to a number of plant closures, redundancies and even provoked limited international union action.\footnote{141} Furthermore, the importance of Enka's representation in the Arbeitsring Chemie exceeds that which the size of the company would warrant. One of Enka's senior managers is chairman of the employers' collective bargaining committee,\footnote{142} illustrating how useful it can be for companies active in more profitable

\footnotesize{\begin{itemize}
\item \textsuperscript{137} Chemfacts Germany, op.cit., p.118. Also cf. "Auf breiter Basis gut verdient - Degussa", Wirtschaftswoche, Nr.14, 25.3.77, p.54.
\item \textsuperscript{138} Ibid., p.149f. The process was subsequently named after the companies founder Br.A.Wacker, cf. Reubin and Burstall, op.cit., p.203f.
\item \textsuperscript{139} See below.
\item \textsuperscript{140} cf. "Europe's troubled fibre industry - a home for masochists", Chemistry and Industry, 5.2.77, p.95.
\item \textsuperscript{142} "Organisationen der deutschen Wirtschaft – der Arbeitsring Chemie", Infobrief, 10/79, p.8.
\end{itemize}
sectors to have their agreements linked to the less successful companies in the industry.

The large and more diverse companies, particularly Bayer, BASF and Hoechst therefore have more room to manoeuvre in their local relations with the works council and are able to follow their social paternalistic policies which have been described above. This seems to greatly influence the climate of industrial relations in these companies, although to a lesser extent at BASF than in the other companies as a result of more effective union activities.

The chemical industry is renowned as having a large number of multinational interests, and this also provides some protection against economic recessions. Analysis of data in a handbook on chemical companies located in Germany produced the results given in the table below.

Table 3.5.
Ownership and multinational companies in the West German Chemical Industry. (143)

<table>
<thead>
<tr>
<th>Type of ownership - Company type - Scope</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>German - multinational companies</td>
<td>18.9</td>
</tr>
<tr>
<td>German - subsidiaries - multinational activities</td>
<td>4.4</td>
</tr>
<tr>
<td>German - subsidiaries - Germany</td>
<td>32.2</td>
</tr>
<tr>
<td>German - non-multinational companies</td>
<td>18.9</td>
</tr>
<tr>
<td>American - subsidiaries</td>
<td>10.6</td>
</tr>
<tr>
<td>British - subsidiaries</td>
<td>3.6</td>
</tr>
<tr>
<td>Belgian - subsidiaries</td>
<td>3.3</td>
</tr>
<tr>
<td>Dutch - subsidiaries</td>
<td>3.1</td>
</tr>
<tr>
<td>French - subsidiaries</td>
<td>2.8</td>
</tr>
<tr>
<td>Swiss - subsidiaries</td>
<td>1.1</td>
</tr>
<tr>
<td>Lichtenstein - subsidiaries</td>
<td>1.1</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

143. A sample of 90 companies selected, presumably, according to their importance. Company size range from those employing less than 100 people to those which employ over 100,000. *Chemfacts Germany*, *op.cit.*, pp.106-154.
The data reveals that around 50 per cent of these companies are not multinational themselves although many of these are subsidiaries of multinationals. Approximately 25 per cent of companies are owned by foreign multinational companies.

Industrial relations in foreign-owned companies are often conducted rather differently to those in German owned companies, particularly in the case of American companies. American firms are more prone to anti-union feelings than German companies, and they also tend to be reluctant to joint employers’ associations. In this later case, a company or works agreement is often made between management and the Chemical Workers’ Union. According to works council respondents in an American subsidiary visited, the parent company kept a very close watch on the financial workings of the subsidiary so that the works councillors often had the feeling that their true negotiating opponents were not sitting across the table from them.

Diversification of production and multinational activities can provide a buffer should economic recession occur and in their way the climate

145. Interviews ER 1, Aug.’77; ER 4 and ER 8 both Sept.’77.
146. Interviews FTO 1, FTO 6 and ER 1, all Aug.’77.
147. This company is a member of the employers’ association, and did not show anti-union tendencies.
of industrial relations can benefit. Foreign ownership can result in the importing of industrial relations traditions from the country of origin or in strict control of the subsidiary company's activities.

d. Location.

A discussion of the size of chemical establishments has revealed that the majority of employees work in establishments of some size. In addition each of the main three West German chemical companies has a main production site. It seems likely, then, that the chemical industry might be concentrated into specific areas. If this is the case, the regional concentration or location of the chemical industry may have an influence on labour relations.

The table below considers the changes in the regional location and concentration of the West German chemical industry over the last twenty years.

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149. A large number of factors can influence the choice of an industrial location such as raw materials, markets, transport, energy sources, manpower availability, government activity, etc. cf. R.C. Estall and R.O. Buchanan, Industrial Activity and Economic Geography, Revised Edition, London, 1966. As far as the West German chemical industry is concerned, raw materials such as coal and potash, the availability of transport (in this case, navigable rivers), and energy sources seemed to have been most significant. D. Burtenshaw, Economic Geography of West Germany, London and Basingstoke, 1974, p.114ff and R. Geipei, Industriegeographie als Einführung in die Arbeitswelt, Braunschweig, 1969, p.82ff.
Table 3.6.
Regional Location and Concentration of the Chemical Industry compared with Manufacturing Industry in West Germany. (150)

<table>
<thead>
<tr>
<th>Region</th>
<th>1977</th>
<th>1966</th>
<th>1957</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Man.</td>
<td>Chem</td>
<td>Conc</td>
</tr>
<tr>
<td>Man. Ind. %</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>2.85</td>
<td>1.86</td>
<td>0.70</td>
</tr>
<tr>
<td>Hamburg</td>
<td>2.21</td>
<td>4.21</td>
<td>1.90</td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>9.43</td>
<td>5.87</td>
<td>0.62</td>
</tr>
<tr>
<td>Bremen</td>
<td>1.13</td>
<td>0.21</td>
<td>0.19</td>
</tr>
<tr>
<td>Nordrhein-Westfalen</td>
<td>28.14</td>
<td>36.50</td>
<td>1.30</td>
</tr>
<tr>
<td>Hessen</td>
<td>8.96</td>
<td>15.93</td>
<td>1.78</td>
</tr>
<tr>
<td>Rheinland-Pfalz</td>
<td>5.19</td>
<td>11.67</td>
<td>2.25</td>
</tr>
<tr>
<td>Baden-Württemberg</td>
<td>19.46</td>
<td>10.48</td>
<td>0.54</td>
</tr>
<tr>
<td>Bayern</td>
<td>18.56</td>
<td>10.86</td>
<td>0.59</td>
</tr>
<tr>
<td>Saarland</td>
<td>1.74</td>
<td>0.39</td>
<td>0.22</td>
</tr>
<tr>
<td>Berlin (West)</td>
<td>2.61</td>
<td>2.02</td>
<td>0.77</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

It is apparent that chemical employment is centred around the regions in which the main production works of the big three companies are located.

150. Source: Statistische Jahrbücher, various years. Own calculations.

(a) Including oil refining and coal products.
(b) Factor given by Regional chemical employment / National chemical employment /
Regional industrial employment / National industrial employment
(c) Without oil refining or coal products.
(d) Excluding Saarland.
However, the chemical industry only achieves concentrations notably above that for manufacturing industry in general in Hessen and Rheinland-Pfalz, although the largest number of chemical employees is to be found in Nordrhein-Westfalen, as might be expected due to the high concentration of industry in general and the location of coal as a raw material and energy source in this area.\(^{151}\) The chemical industry does seem to be gaining in importance in this latter region, however, due probably to the decline of iron, steel and coal industries in recent times.\(^{152}\)

The only major growth in concentration in the chemical industry seems to have occurred in the Hamburg region. Reasons for this are the availability of cheap nuclear energy, coastal sites which have good supplies of water for cooling and for effluent discharge and are convenient from the point of view of water transport, a ready market for chemical products around Hamburg and available labour due to the general decline of the shipbuilding industries.\(^{153}\)

Does this regional location have consequences for industrial relations as far as the chemical industry is concerned? This question seems difficult to solve due to an insufficient breakdown of the statistics covering such matters as industrial disputes. Analysis of working days lost in different regions over the period 1962-1978 shows that around

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151. For the locations of sources of energy cf. D. Burtenshaw, \textit{op.cit.}, p.65ff.

152. \textit{cf. Ibid.}

153. This information was gained during the course of interviews and informal discussions with representatives of companies who have recently sited works in this area.
38 per cent of days were lost in Nordrhein-Westfalen, a figure which corresponds approximately to the percentage of manufacturing industry in the area, whilst a further 26 per cent of days were lost in Baden-Württemberg, a figure disproportionately high when compared with the amount of industry located in this region.

Although the concentration of the chemical industry in Baden-Württemberg is quite low and whilst it is high in generally peaceful regions such as Rheinland-Pfalz, it would be rather bold to claim that more than a slight contribution to the low incidence of industrial action in the chemical industry results from the regional location. This does not mean, however, that the regional distribution and concentration are without significance to industrial relations both nationally and locally.

The concentration of the chemical industry in the regions Nordrhein-Westfalen, Hessen and Rheinland-Pfalz ensures that it is these regions that are crucial as far as a result in the annual wage negotiations are concerned. It cannot be mere coincidence that these same regions generally negotiate wage increases one or two months before the other regions.

As has been demonstrated above, the regional strengths of the various employers' associations within the national employers' bodies are determined according to size and in this way regional location can be seen to exert additional indirect influences on industrial relations.

154. Statistische Jahrbücher, various years, own calculations.
155. Approximately 1.6 per cent of working days lost were in Rheinland-Pfalz over the period 1962-1978. Ibid.
156. See Chapter 4, Section (iii)c, below.
157. The collective bargaining system is discussed in greater detail in Chapter 4 below.
158. cf. Table 2.3 above.
Locally such factors as unemployment, absorption of labour from declining industries which have different industrial relations traditions, wage levels in other industries and the background of the workforce could all have an influence on labour relations. However, such factors seem very difficult to quantify, and the individual circumstances of particular sites should be considered when a study is being carried out in a specific location.

At Agrochemie AG a number of respondents claimed that the background of the workforce which was believed to be mainly from farming contributed to the quiet nature of industrial relations there.\(^{159}\) It was demonstrable that over a third of respondents came from an agricultural background, but it was not possible to show that the profession of the respondents' fathers was a significant factor in the formation of opinions on industrial relations matters such as strikes, trades unions, management and the works council. Some differences in response did occur between those from industrial and agricultural background but no particular significance can be attached to them.\(^{160}\)

Although it is possible that the social background of chemical workers which can be influenced by the location of the works might have an effect on labour relations, this could not be demonstrated as far as Agrochemie AG is concerned and a larger survey covering a range of sites would probably be required to test this hypothesis in a more valid way.

\(^{159}\) Especially Interview M 3, Oct.'78.

\(^{160}\) For example only 14 per cent of respondents from an industrial background stated they would be willing to engage in political strike action compared with 36 per cent from an agricultural background. A result which is perhaps the reverse of that which might have been expected.
In summary the industrial organisation of the German chemical industry can be described as having the following characteristics. The industry is highly concentrated, although there are numerous large companies and establishments. In this way co-operation between management on industrial relations matters is facilitated as in co-ordinated action. The type of co-determination rights available and used also depend on company or establishment size. Management techniques are generally more subtle in their approach towards the works council and unions in the larger companies where the employee representatives are often overburdened with bureaucratic functions.

The workforce structure which is characterised generally by a high percentage of white-collar and supervisory staff, consequently also has influences on industrial relations. Examples of such consequences are relatively low union densities, a lack of militancy and trends towards status harmonisation.

The three major chemical companies are far more diversified than the remainder of their competitors and this gives them additional economic strength in times of recession and thus creates more room to manoeuvre in their relations with the works council. In this way the climate of industrial relations can be positively affected.

The chemical industry is located primarily in three regions and thus gives the employer and union regional organisations from these areas particular importance. There is scant evidence, however, of further regional effect on labour relations in the chemical industry.

The West German economy suffered its first minor recession since the post-war recovery in the middle of the 1960's. However, this recession left the chemical industry relatively unaffected and the first economic reverses were not felt in this industry until 1970 because it is highly export intensive whilst this recession was primarily a German experience.

This analysis commences, however, in 1969 since a number of significant developments occurred in West Germany in this year. Not only was there an almost unique outburst of unofficial strikes but a Social Democratic government was returned for the first time since the Weimar Republic, an occurrence which is likely to have influenced the relationship between the trade unions and government.

a. Chemical output.

The overcapacity in world chemical production particularly in such sectors as man-made fibres and plastics began to make itself felt in 1970 and this resulted in price reductions and loss of profits. This economic situation, which with hindsight "cannot be seen as a normalisation of the high growth rates during the 1968/69 boom ... but together with the downturn of then unforeseen proportion in the national economy must have appeared as a danger to the whole production and profit strategies practised by the West German chemical industries so

161. F. Vogl, op. cit., p. 8. One consequence of this was the introduction of incomes policy via the Konzertierte Aktion. cf. R. Seitzenzahl, Einkommenspolitik durch konzertierte Aktion, Köln, 1974.

162. Dzielał et al., op. cit., p. 63 and cf. Footnote 176 below.

163. cf. M. Schumann et al., op. cit.

successfully throughout the Sixties". (165) One of the consequences of this conception of the crisis by the management of chemical concerns was the strike in the chemical industry in 1971, since the union experienced unexpectedly hard resistance to their wage claims. (166)

The general trend of output over the last decade in the chemical industry is of interest since it might have had consequences for industrial relations. The table below shows chemical production as compared with total industrial production in index form. The same data is represented graphically in the figure which follows the table.

Table 3.7.

Production and Turnover in the Chemical Industry as compared with Manufacturing Industry 1969-1978. (167)

<table>
<thead>
<tr>
<th>Year</th>
<th>Index of Production 1970=100</th>
<th>Turnover</th>
<th>% Man.Ind.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Chem.Ind.</td>
<td>Man.Ind.</td>
<td>Chem.Ind.</td>
</tr>
<tr>
<td>1969</td>
<td>94.7</td>
<td>94.4</td>
<td>47 369</td>
</tr>
<tr>
<td>1970</td>
<td>100.0</td>
<td>100.0</td>
<td>50 527</td>
</tr>
<tr>
<td>1971</td>
<td>105.3</td>
<td>101.2</td>
<td>53 576</td>
</tr>
<tr>
<td>1972</td>
<td>112.5</td>
<td>104.8</td>
<td>56 740</td>
</tr>
<tr>
<td>1973</td>
<td>126.9</td>
<td>111.9</td>
<td>65 170</td>
</tr>
<tr>
<td>1974</td>
<td>130.5</td>
<td>110.5</td>
<td>86 929</td>
</tr>
<tr>
<td>1975</td>
<td>114.5</td>
<td>103.6</td>
<td>78 541</td>
</tr>
<tr>
<td>1976</td>
<td>131.3</td>
<td>110.7</td>
<td>91 219</td>
</tr>
<tr>
<td>1977</td>
<td>132.0</td>
<td>113.7</td>
<td>108 538(a)</td>
</tr>
<tr>
<td>1978</td>
<td>138.9</td>
<td>116.7</td>
<td>111 574(a)</td>
</tr>
</tbody>
</table>

165. Author's translation of: "so erscheint es sehr problematisch die rückläufigen Um satzzahlen (1970/71) als 'Normalisierung' gegen über den hohen Wachstumszahlen im Boom 1968/69 zu charakterisieren ... zusammen mit dem in seinem Ausmass noch nicht absehbaren Abschwung der nationalen Konjunktur für die chemische Industrie in der Bundesrepublik als eine aktuelle Gefährdung ihrer in den sechziger Jahren so erfolgreich praktizierten Absatz- und Gewinnstrategien erscheinen." Dzielak et al., op. cit., p. 63ff.

166. These connections are repeatedly made in Dzielak et al., op. cit.


Wirtschaft und Statistik, No. 8, 1979, p. 526*

Zahlen zur Sozialpolitik, 1979, op. cit., p. 43.

(a) Limited comparability due to change in classification system.
The shaded columns represent manufacturing industry and the unshaded ones the chemical industry.
The table and figure reveal that except for the years 1970, 1975 and 1977 the chemical industry production increased more rapidly than that of manufacturing industry in general. The effect of the recession in 1974/75 which was a world-wide phenomenon is particularly striking, and it seems to have been caused at least in part by the oil-crisis of 1973/74. (168)

The economic recession hit the chemical industry in a number of ways. Oil is extremely important to the chemical industry — before the oil crisis 87 per cent of raw materials for the organic chemical industry were oil-based (169) and the recession in other sectors of the economy which consumed large amounts of chemicals also greatly reduced the demand for chemicals. In particular difficulties in the textile, building, motor and furniture industries had a great effect upon the chemical industry. (170)

Practically the only sectors of the chemical industry which remained almost unaffected by the crisis were those which produced goods directly for consumption such as pharmaceuticals, agrochemicals, etc. This can be illustrated by comparing the sectoral production indexes for 1974 and 1975:


Table 3.8.
Sectoral production indexes 1974/75 1970=100. (171)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Intermediates</td>
<td>Products</td>
<td></td>
<td>Consumer Products</td>
</tr>
<tr>
<td>1974</td>
<td>130.5</td>
<td>120.6</td>
<td>133.0</td>
<td>132.0</td>
</tr>
<tr>
<td>1975</td>
<td>114.5</td>
<td>110.4</td>
<td>103.2</td>
<td>107.9</td>
</tr>
</tbody>
</table>

This economic recession together with technological changes and over-capacity in certain sectors of the industry has led to shifts in the importance of the various sectors. (172)

Table 3.7 above also indicates that in 1976/77 there was stagnation as far as the chemical industry as a whole was concerned. (173) This lack of growth was not universal within the chemical industry, however, and BASF proved to be particularly healthy. This provoked the Chemical Workers' Union region of Rheinland-Pfalz to attempt, in vain, to gain a higher wage rise than the other regions. (174)

An economic recession naturally has an influence on industrial relations since it must affect the climate in which collective bargaining in particular takes place. This is even more likely to be the case when unemployment has risen.

172. of. Appendix 1, Table 13.
173. One reason for this was a drop in the value of chemical exports from 1974 to 1975 of around 22 per cent in current prices which had not been made up even by 1978. Chemiewirtschaft in Zahlen, 1976, op. cit., p.85, own calculations and Daten zur Sozialpolitik, op. cit., Folge 33, März 1979. Nevertheless, in 1978 32.8 per cent of chemical turnover was as a result of exports leaving the chemical industry very sensitive to international changes in the value of the Deutschmark. Ibid., own calculations.
174. This is discussed in greater detail in Chapter 4. Also of Projektgruppe Gewerkschaftsforschung, 1978, op. cit., pp.118-185.
b. The labour market situation.

The conditions of the labour market may be considered by examining several features such as the numbers of employees, people without employment, short-time workers and positions vacant. These features of the labour market in the West German chemical industry are presented below. (Table 3.9).

The table reveals that the importance of the chemical industry within the economy is growing and this reflects its relatively stable economic position compared with industry in general although it can be clearly seen that the chemical industry was affected by the recession in 1974/75 and by a slight decline in 1971/72. This slowing-down of the economic development in the early seventies was one of the contributory factors to the chemical industry dispute in 1971. Nevertheless it does seem that in the chemical industry a recession does not immediately result in unemployment. This is illustrated by the higher rates of unemployment in 1972 and again in 1976. However, short-time work seems generally to be introduced as an interim measure fairly soon after the start of a recession.

Due to the relatively steady economic growth experienced by the West German economy since the early 1950's unemployment had been low for many years. The lack of fear of unemployment was illustrated in 1967 national unemployment did reach almost half a million. However, the chemical industry was relatively unaffected since only 5415 chemical workers were unemployed and 1916 were on short-time work. Statistisches Jahrbuch, 1969, op.cit., p.129. The reason for this may well be the importance of exports in the chemical industry - in 1967 almost 29% of turnover was a result of exports as compared with 27% in 1966. On average less than 19% of turnover in German industry resulted from exports in 1967. Chemiewirtschaft in Zahlen, 1976, op.cit., p.18, own calculations.

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175. Dzielak et al., op.cit., p.63f.
176. In 1967 national unemployment did reach almost half a million. However, the chemical industry was relatively unaffected since only 5415 chemical workers were unemployed and 1916 were on short-time work. Statistisches Jahrbuch, 1969, op.cit., p.129. The reason for this may well be the importance of exports in the chemical industry - in 1967 almost 29% of turnover was a result of exports as compared with 27% in 1966. On average less than 19% of turnover in German industry resulted from exports in 1967. Chemiewirtschaft in Zahlen, 1976, op.cit., p.18, own calculations.
## Table 7.9

<table>
<thead>
<tr>
<th>Year</th>
<th>Number (a)</th>
<th>Number (e) %</th>
<th>Number (b) %</th>
<th>Number (c)</th>
<th>Number (d) %</th>
<th>Number (f) %</th>
<th>Number (g) %</th>
<th>Number (h) %</th>
<th>Number (i) %</th>
<th>Number (j) %</th>
<th>Number (k) %</th>
<th>Number (l) %</th>
<th>Number (m) %</th>
<th>Number (n) %</th>
<th>Number (o) %</th>
<th>Number (p) %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1979</td>
<td>8,247</td>
<td>2.4</td>
<td>8237</td>
<td>1.9</td>
<td>4,992</td>
<td>1.8</td>
<td>2,295</td>
<td>1.5</td>
<td>1,726</td>
<td>0.9</td>
<td>1,038</td>
<td>0.7</td>
<td>628</td>
<td>0.7</td>
<td>372</td>
<td>0.7</td>
</tr>
<tr>
<td>1980</td>
<td>7,398</td>
<td>1.8</td>
<td>7,131</td>
<td>1.9</td>
<td>4,123</td>
<td>1.8</td>
<td>1,746</td>
<td>1.4</td>
<td>1,292</td>
<td>0.7</td>
<td>835</td>
<td>0.7</td>
<td>547</td>
<td>0.7</td>
<td>348</td>
<td>0.7</td>
</tr>
<tr>
<td>1981</td>
<td>6,897</td>
<td>2.0</td>
<td>6,734</td>
<td>1.9</td>
<td>3,869</td>
<td>1.8</td>
<td>1,622</td>
<td>1.4</td>
<td>1,209</td>
<td>0.7</td>
<td>812</td>
<td>0.7</td>
<td>512</td>
<td>0.7</td>
<td>329</td>
<td>0.7</td>
</tr>
<tr>
<td>1982</td>
<td>6,485</td>
<td>2.0</td>
<td>6,327</td>
<td>1.9</td>
<td>3,837</td>
<td>1.8</td>
<td>1,595</td>
<td>1.4</td>
<td>1,175</td>
<td>0.7</td>
<td>795</td>
<td>0.7</td>
<td>495</td>
<td>0.7</td>
<td>318</td>
<td>0.7</td>
</tr>
<tr>
<td>1983</td>
<td>6,188</td>
<td>2.0</td>
<td>6,080</td>
<td>1.9</td>
<td>3,813</td>
<td>1.8</td>
<td>1,569</td>
<td>1.4</td>
<td>1,150</td>
<td>0.7</td>
<td>780</td>
<td>0.7</td>
<td>488</td>
<td>0.7</td>
<td>312</td>
<td>0.7</td>
</tr>
<tr>
<td>1984</td>
<td>5,989</td>
<td>1.9</td>
<td>5,830</td>
<td>1.9</td>
<td>3,792</td>
<td>1.8</td>
<td>1,547</td>
<td>1.4</td>
<td>1,134</td>
<td>0.7</td>
<td>760</td>
<td>0.7</td>
<td>482</td>
<td>0.7</td>
<td>305</td>
<td>0.7</td>
</tr>
<tr>
<td>1985</td>
<td>5,770</td>
<td>1.9</td>
<td>5,631</td>
<td>1.9</td>
<td>3,766</td>
<td>1.8</td>
<td>1,528</td>
<td>1.4</td>
<td>1,118</td>
<td>0.7</td>
<td>744</td>
<td>0.7</td>
<td>477</td>
<td>0.7</td>
<td>300</td>
<td>0.7</td>
</tr>
<tr>
<td>1986</td>
<td>5,551</td>
<td>1.9</td>
<td>5,423</td>
<td>1.9</td>
<td>3,741</td>
<td>1.8</td>
<td>1,508</td>
<td>1.4</td>
<td>1,099</td>
<td>0.7</td>
<td>729</td>
<td>0.7</td>
<td>471</td>
<td>0.7</td>
<td>295</td>
<td>0.7</td>
</tr>
<tr>
<td>1987</td>
<td>5,331</td>
<td>1.9</td>
<td>5,207</td>
<td>1.9</td>
<td>3,715</td>
<td>1.8</td>
<td>1,489</td>
<td>1.4</td>
<td>1,081</td>
<td>0.7</td>
<td>714</td>
<td>0.7</td>
<td>463</td>
<td>0.7</td>
<td>290</td>
<td>0.7</td>
</tr>
<tr>
<td>1988</td>
<td>5,111</td>
<td>1.9</td>
<td>5,005</td>
<td>1.9</td>
<td>3,688</td>
<td>1.8</td>
<td>1,472</td>
<td>1.4</td>
<td>1,064</td>
<td>0.7</td>
<td>700</td>
<td>0.7</td>
<td>456</td>
<td>0.7</td>
<td>285</td>
<td>0.7</td>
</tr>
</tbody>
</table>
studies carried out at the end of the 1960's, for example one survey showed around 25 per cent of respondents having particular fear of unemployment. However, an identical question at Agrochemie AG revealed almost 60 per cent of respondents who feared unemployment. Although a much wider study would be required to test the general validity of such a hypothesis it does seem that recent experience of a high level of unemployment both nationally and to a less extent within the chemical industry itself has led to an increased fear of unemployment amongst chemical workers.

Such a change in attitudes must influence the climate of industrial relations with workers being far less willing to risk their jobs for any reason. Under these circumstances union members are less willing to engage in strike action, sickness rates drop and so does labour turnover.

Another consequence for labour relations was a willingness amongst trade unions to accept much lower wage increases and this was also the case in the chemical industry.

178. M. Schumann et al., op.cit., pp. 191, 204, 208, 213 and 215. In another study 37 per cent of respondents foresaw negative effects to the technological progress, one of which can be conceived of as unemployment. F. Fürstenberg, op.cit., p. 272.

179. cf. Appendix 3, Table 29.

180. Interview BRV 5, Sep.'77.

181. In the chemical industry the sickness rate dropped by 16.4 per cent from 1973 to 1975, as compared with an average drop of 12.6 per cent on average over this period. Zahlen zur Sozialpolitik, 1979, op.cit., p. 63.

182. At Hoechst, for example, ca. 10,000 left the company in 1973 compared with around 6,400 in 1975. Personalbericht 1976, op.cit., p. 58. This report also contains an interesting account of management employment policies under recessionary conditions. Ibid., p. 42ff.

183. cf. Dzielsakh et al., op.cit., p. 537.
It was noted above that with the exception of the recession year 1975 chemical production has been steadily increasing over the last decade. However, employment levels in the chemical industry are presently very similar to those of ten years ago. This increase in productivity is discussed in the next section.

c. Productivity.

According to the Projektgruppe Gewerkschaftsforschung:

"It is interesting to note that the increase in the rate of labour productivity from 1960 to 1970 kept almost exact pace with the increase in production whilst over the period in 1970 to 1976 growth in productivity far exceeded growth in production." (184)

The change in productivity over the period which is of particular interest here is considered in the next table.

Table 3.10.
Productivity in the chemical industry compared to industry on average 1969-1978. (185)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Index (1970=100)</th>
<th>Total Change %</th>
<th>Chemical Index (1970=100)</th>
<th>Chemical Change %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>97.7</td>
<td>+7.1</td>
<td>99.4</td>
<td>+9.0</td>
</tr>
<tr>
<td>1970</td>
<td>100.0</td>
<td>+2.3</td>
<td>100.0</td>
<td>+1.0</td>
</tr>
<tr>
<td>1971</td>
<td>102.0</td>
<td>+2.0</td>
<td>106.1</td>
<td>+6.1</td>
</tr>
<tr>
<td>1972</td>
<td>108.2</td>
<td>+6.0</td>
<td>115.1</td>
<td>+8.5</td>
</tr>
<tr>
<td>1973</td>
<td>115.0</td>
<td>+6.3</td>
<td>128.1</td>
<td>+11.3</td>
</tr>
<tr>
<td>1974</td>
<td>116.2</td>
<td>+1.0</td>
<td>130.2</td>
<td>+1.6</td>
</tr>
<tr>
<td>1975</td>
<td>115.8</td>
<td>-0.3</td>
<td>117.0</td>
<td>-10.1</td>
</tr>
<tr>
<td>1976</td>
<td>127.6</td>
<td>+10.2</td>
<td>137.2</td>
<td>+17.3</td>
</tr>
<tr>
<td>1977</td>
<td>132.7</td>
<td>+4.0</td>
<td>138.7</td>
<td>+1.1</td>
</tr>
<tr>
<td>1978</td>
<td>136.1</td>
<td>+2.6</td>
<td>148.0</td>
<td>+6.7</td>
</tr>
</tbody>
</table>

Average Annual Increase: 3.8 -


185. Zahlen zur Sozialpolitik, 1979, op. cit., p. 49. The form of productivity used here is one of several alternatives, since production per employee hour or worker could equally be used. For the period 1959-1968 the average annual increase in productivity in the chemical industry was around 9 per cent. M. Panić (ed.), op. cit., p. 38, own calculations.
The effect of the recession in 1974/75 on the chemical industry is again visible. The reason for the chemical industry being influenced to a greater extent than industry in general is an inability to lay off labour at short notice as a means of decreasing the effects of the recession. (186) Since greater use was made of short-time working than redundancy the decrease in productivity in terms of employee hours worked was only 5.0 per cent. (187)

Such increases in productivity had been necessitated to a large extent by the need to keep export prices constant, a factor which generally ensured steady or decreasing prices for chemical products over a fairly long period of time. (188) However, the increase in prices for raw materials and the decrease in productivity resulted in a very rapid increase in the prices for many chemicals. (189)

Improved productivity increases management's room to manoeuvre in their negotiations with the trade unions and works council. In this way the wage differentials which have existed between the chemical industry and industry in general for sometime (190) have increased slightly from 7 per cent to 8 per cent from 1970 to 1978. (191)

189. cf. Appendix 1, Table 14.
190. Wage levels are discussed in more detail below. Parallels between productivity and earnings for the period 1959 to 1968 for the chemical industry have been clearly demonstrated. cf. M. Schumann, op.cit., p.186.
International competition has been constantly increased by technological developments in the chemical industry which have enabled the construction of plants of greatly improved capacity with the resultant economies. (192) This has led to the German chemical industry building new plants and improving existing ones, for as a British study team reported, "German companies appeared to seek improvements (in productivity) mainly by using opportunities presented by new investment". (193) It therefore seems appropriate to consider investment policies in the German chemical industry next.

d. Investment.

During the Fifties and Sixties there had been a massive growth in the amount of investment in the chemical industry with the result that by 1969 this industry accounted for 17 per cent of all industrial investment in Germany. (194) However, since then, increasing economic difficulties and an inability to pass the costs of investment on to the consumer in the form of price increases due to the intense international competition has led to a reduction in investment in the chemical industry (195) as is clearly illustrated by the table below.

192. Ethylene, a basic organic feedstock, provides a good example. of. Reuben and Burstill, op. cit., p.171ff.


194. Dzielak et al., op. cit., p.53.

Table 3.11.
Investment in industry and in the chemical industry 1969-1978.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Industry</th>
<th>Quota Intensity</th>
<th>Chemical Industry</th>
<th>Quota Intensity</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mill. DM</td>
<td>Quota (a)</td>
<td>Intensity (b)</td>
<td>Mill. DM</td>
</tr>
<tr>
<td>1969</td>
<td>28595</td>
<td>6.1</td>
<td>3442</td>
<td>4855</td>
</tr>
<tr>
<td>1970</td>
<td>35820</td>
<td>6.8</td>
<td>4164</td>
<td>5510</td>
</tr>
<tr>
<td>1971</td>
<td>37995</td>
<td>6.7</td>
<td>4495</td>
<td>5240</td>
</tr>
<tr>
<td>1972</td>
<td>35400</td>
<td>5.9</td>
<td>4260</td>
<td>4400</td>
</tr>
<tr>
<td>1973</td>
<td>35380</td>
<td>5.3</td>
<td>4230</td>
<td>4680</td>
</tr>
<tr>
<td>1974</td>
<td>34865</td>
<td>4.6</td>
<td>4281</td>
<td>5500</td>
</tr>
<tr>
<td>1975</td>
<td>34465</td>
<td>4.7</td>
<td>4525</td>
<td>5500</td>
</tr>
<tr>
<td>1976</td>
<td>37135</td>
<td>4.5</td>
<td>4999</td>
<td>5500</td>
</tr>
<tr>
<td>1977</td>
<td>38100</td>
<td>4.1</td>
<td>5246</td>
<td>5500</td>
</tr>
<tr>
<td>1978</td>
<td>41890</td>
<td>4.2</td>
<td>5513</td>
<td>5700</td>
</tr>
</tbody>
</table>

The stagnation of investment in the chemical industry has resulted in a decrease in investment in real terms, which for the period 1970 to 1976 was 27 per cent. Although the amount of investment per employee has increased in net terms over the last decade, in real terms there has again been a decline as since 1970 there has been a 50 per cent increase in the cost of living in West Germany. The decrease in investment in the chemical industry is perhaps one reason for the slower rate of increase in productivity determined above.

Zahlen zur Sozialpolitik, 1979, op.cit., p.53.
(a) Investments as a percentage of turnover.
(b) Investments per employee.


198. Zahlen zur Sozialpolitik, 1979, op.cit., p.64.
Data for the period 1970 to 1975 reveals that around 76 per cent of investment in the chemical industry goes annually towards the construction or purchase of new plant and machinery. Since the number of employees in the chemical industry has remained relatively constant these investments constitute rationalisation which is likely to lead to an increase in the level of technology and automation. The influence of these factors on industrial relations has already been discussed above. Investment, although declining in recent years, is seen as contributory towards a trend of increasing technological sophistication in the German chemical industry.

The economic situation during the period 1969-1978, several features of which have been discussed from the point of view of the German chemical industry, may have had an influence on the level of wages and salaries paid in this industry as compared with industry in general and the situation prior to 1969. In order to investigate this possibility earnings in the chemical industry are considered next.

e. Earnings.

The earnings of employees can be considered in a number of ways. Limitations in the statistical data available necessitate that wage and salary earners be treated separately, but gross earnings and agreed earning levels are both of significance.

Table 3.12.

Wages in the chemical industry compared with industry in general 1950-1978. (200)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Industry Gross Earnings per hour DM</th>
<th>Tariff Index</th>
<th>Chemical Industry Gross Earnings per hour DM</th>
<th>Tariff Index</th>
<th>% Diff. (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1950</td>
<td>1.26</td>
<td>21.2</td>
<td>26.9</td>
<td>1.32</td>
<td>20.0</td>
</tr>
<tr>
<td>1955</td>
<td>1.78</td>
<td>30.1</td>
<td>35.2</td>
<td>1.84</td>
<td>28.1</td>
</tr>
<tr>
<td>1960</td>
<td>2.69</td>
<td>44.3</td>
<td>48.6</td>
<td>2.70</td>
<td>41.4</td>
</tr>
<tr>
<td>1965</td>
<td>4.26</td>
<td>69.6</td>
<td>71.0</td>
<td>4.34</td>
<td>66.8</td>
</tr>
<tr>
<td>1967</td>
<td>4.69</td>
<td>74.2</td>
<td>79.6</td>
<td>4.90</td>
<td>75.1</td>
</tr>
<tr>
<td>1969</td>
<td>5.37</td>
<td>87.1</td>
<td>88.4</td>
<td>5.61</td>
<td>85.2</td>
</tr>
<tr>
<td>1970</td>
<td>6.09</td>
<td>100</td>
<td>100</td>
<td>6.51</td>
<td>100</td>
</tr>
<tr>
<td>1971</td>
<td>6.82</td>
<td>111.0</td>
<td>113.0</td>
<td>7.23</td>
<td>110.2</td>
</tr>
<tr>
<td>1972</td>
<td>7.42</td>
<td>120.9</td>
<td>122.8</td>
<td>7.83</td>
<td>119.5</td>
</tr>
<tr>
<td>1973</td>
<td>8.23</td>
<td>133.5</td>
<td>134.5</td>
<td>8.61</td>
<td>130.7</td>
</tr>
<tr>
<td>1974</td>
<td>9.13</td>
<td>147.1</td>
<td>150.4</td>
<td>9.77</td>
<td>147.7</td>
</tr>
<tr>
<td>1975</td>
<td>9.85</td>
<td>158.7</td>
<td>163.9</td>
<td>10.51</td>
<td>159.3</td>
</tr>
<tr>
<td>1976</td>
<td>10.49</td>
<td>168.8</td>
<td>173.2</td>
<td>11.32</td>
<td>170.9</td>
</tr>
<tr>
<td>1977</td>
<td>11.27</td>
<td>180.8</td>
<td>185.6</td>
<td>12.21</td>
<td>183.9</td>
</tr>
<tr>
<td>1978</td>
<td>11.88</td>
<td>190.4</td>
<td>195.3</td>
<td>12.85</td>
<td>193.8</td>
</tr>
</tbody>
</table>

There has apparently been a trend of an increasing difference between the wages paid in the chemical industry as compared with industry in general. This has been particularly so since the onset of the economic recession in 1974 and seems to suggest that this recession has affected chemical workers' earnings less seriously than it has average earnings. Furthermore, chemical workers have always earned above average wages.

(a) All indexes 1970=100.
(b) Percentage difference between gross earnings per hour in the chemical industry compared with total industry.

201. The recession did, however, lead to restraint in wage demands and agreements both generally and in the chemical industry. cf. "Tarifkalender 1975", Konjunkturberichte, Vol.27, No.1, 1976, pp.22-23.
since 1950. It also seems that agreed (tariff) wage rates have increased slightly faster than gross earnings and this would contribute to a decrease in wage drift. The question can be posed as to whether it is possible to identify similar trends as far as salaries are concerned.

Table 3.13.

Salaries in the chemical industry compared with industry in general 1957-1978. (203)

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Industry Gross Monthly Earnings</th>
<th>Chemical Industry Gross Monthly Earnings</th>
<th>% Diff. (b)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>DM</td>
<td>Index (a)</td>
<td>DM</td>
</tr>
<tr>
<td>1957</td>
<td>559</td>
<td>42.4</td>
<td>560</td>
</tr>
<tr>
<td>1960</td>
<td>663</td>
<td>49.8</td>
<td>680</td>
</tr>
<tr>
<td>1965</td>
<td>971</td>
<td>71.0</td>
<td>1036</td>
</tr>
<tr>
<td>1967</td>
<td>1088</td>
<td>78.6</td>
<td>1171</td>
</tr>
<tr>
<td>1969</td>
<td>1260</td>
<td>89.2</td>
<td>1358</td>
</tr>
<tr>
<td>1970</td>
<td>1408</td>
<td>100</td>
<td>1523</td>
</tr>
<tr>
<td>1971</td>
<td>1577</td>
<td>110.4</td>
<td>1677</td>
</tr>
<tr>
<td>1972</td>
<td>1725</td>
<td>119.8</td>
<td>1812</td>
</tr>
<tr>
<td>1973</td>
<td>1965</td>
<td>131.9</td>
<td>2026</td>
</tr>
<tr>
<td>1974</td>
<td>2189</td>
<td>145.5</td>
<td>2272</td>
</tr>
<tr>
<td>1975</td>
<td>2378</td>
<td>157.4</td>
<td>2476</td>
</tr>
<tr>
<td>1976</td>
<td>2553</td>
<td>167.8</td>
<td>2649</td>
</tr>
<tr>
<td>1977</td>
<td>2742</td>
<td>179.6</td>
<td>2844</td>
</tr>
<tr>
<td>1978</td>
<td>2904</td>
<td>189.7</td>
<td>3026</td>
</tr>
</tbody>
</table>


203. For technical and office staff. Indexation of tariff salary rates is impractical due to the vast range of different salary groups.

Sources: Zahlen zur Sozialpolitik, 1979, op.cit., p.40, own calculations.

(a) 1970=100.
(b) Percentage difference between gross monthly salaries in the chemical industry compared with total industry.
Whilst salaries in the chemical industry have also remained higher than those in industry in general, different trends emerge. In recent years the gap has declined which might be a reflection of the increasing number of salaried staff in the chemical industry.\(^{(204)}\) In times of economic recession it is unlikely that fringe benefits and plus-rate payments would be increased so that the amount received by each member of staff would be less. Certainly in recent years staff salary increases have been of similar size to workers wage increases whereas previously they were less.\(^{(205)}\) This change has conceivably been brought about by the trend towards status harmonisation in the chemical industry, part of which was the introduction of joint wage and salary agreements in the chemical industry.\(^{(206)}\)

Whether there is a "wage gap" between gross salaries and agreed salary rates is also of interest. Due to the different salary rates for office, technical and supervisory staff it is necessary to calculate the wage drift for each group separately, although in the case of supervisory staff the calculation becomes impossible due to the lack of published data on the average earnings of this group.

Data for June 1976 which was the most recent available indicated that the average monthly earnings of office staff were DM 2484 compared with a mean tariff rate of DM 2217. The difference, generally referred to as the wage gap, was 12 per cent. For technical staff at this time

---

204. In 1955 70 per cent of chemical employees were workers compared with 61 per cent in 1970 and 55 per cent in 1978. \textit{Ibid.}, p.10. 
206. Interview FTO 5, Feb.'78.
average earnings were DM 2849 compared with a mean tariff rate of DM 2439, a wage gap of 16.8 per cent. (207)

Respondents had indicated that such differences probably existed (208) and they also suggested that for workers the wage gap was far greater. For various companies, the wage gap was stated to vary between 12 and 60 per cent. (209) Similar calculations to those carried out for salaried staff indicated that in 1975 the wage gap for chemical workers hourly earnings was 39.7 per cent (210) and that by mid 1979 it had increased further to 44.4 per cent. (211)

Robak determined as part of her very thorough investigation of the causes of plus-rate payments that the wage gap in the chemical industry in 1962 was 24 per cent. (212) This resulted from a relatively low tariff rate and a high gross rate and placed the chemical industry sixth in industrial comparison. (213) According to Robak the reasons for wage gap in the chemical industry are:

208. Interviews BRV 4 and FTO 11, Sep.'77.
209. Ibid., and also GM 11, Sep.'77; BRV 5, Sep.'77 and data from Agrochemie AG - see below. One of the main factors determining the size of the gap seems to be company size.
211. Ibid., 1979, pp.18, 20 and Wirtschaft und Statistik, No.8, 1979, p.559*
212. B. Robak, op.cit., p.111ff.
213. Ibid., p.204.
"large labour requirements together with a low tariff wage rate ... the difference in productivity within the industry might also be a cause of the large gap, for although there is a high degree of concentration in the chemical industry there are ... numerous small and medium sized companies in certain sectors (of the industry)"). (214)

Such factors would have continued to have an effect throughout the last decade and a half although labour requirements have reduced. (215)

Economic recessions do not generally seem to have had all that great an effect on the wage gap in the chemical industry (216) although there is evidence that some employers did reduce their voluntary payments and cancel a number of works agreements during the 1967 recession. (217)

Nevertheless, one reason for an increase in wage gap for chemical workers from 1975 to 1979 might be that the former year was in the middle of the latest economic recession.

It is almost impossible to generalise when discussing the origins of the payments which cause a wage gap since it will vary from works to works, company to company, especially with company size (218) and from one group of employees to another. However, the structure of wage payments at Agrochemie AG is given here as an example:

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214. Author's translation of: "ist in erster Linie auf den starken Arbeitskräftebedarf der Branche bei niedrigem Tariflohniveau zurückzuführen ... Möglicherweise sind daneben auch Produktivitätsunterschiede innerhalb des Zweiges eine Ursache für die grosse Spanne; denn obwohl die Unternehmenskonzentration in der Chemischen Industrie weit vorangeschritten ist, gibt es ... in einigen Bereichen zahlreiche Klein- und Mittelbetriebe." Ibid., p.114.

215. See above, nevertheless there remained a core of chemical jobs which were unable to fill. cf. "Mehr als 2500 Chemie-Arbeitsplätze seit Monaten zu besetzen", Infobrief, 8/79, p.6f.


217. Interview FTO 6, Aug.'77. For a further discussion of workplace bargaining see Chapter 5 below.

218. Interview FTO 7, Aug.'77.
Table 3.14.
Structure of wage payments at Agrochemie AG, in September 1978. (219)

<table>
<thead>
<tr>
<th>Type of Payment</th>
<th>Source</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>Tariff</td>
<td>53.0</td>
</tr>
<tr>
<td>Plus-rate payments</td>
<td>Company</td>
<td>6.4</td>
</tr>
<tr>
<td>Leading hands/bonus</td>
<td>Company</td>
<td>0.6</td>
</tr>
<tr>
<td>Night/weekend bonus</td>
<td>Tariff</td>
<td>5.7</td>
</tr>
<tr>
<td>Overtime</td>
<td>Tariff</td>
<td>1.0</td>
</tr>
<tr>
<td>Craftsmen's bonus</td>
<td>Company</td>
<td>2.0</td>
</tr>
<tr>
<td>Packing FBR payment</td>
<td>Works Agr.</td>
<td>3.6</td>
</tr>
<tr>
<td>Shift bonus</td>
<td>Tariff</td>
<td>2.8</td>
</tr>
<tr>
<td>Holiday pay</td>
<td>Tariff</td>
<td>14.5</td>
</tr>
<tr>
<td>Sickness pay</td>
<td>Law</td>
<td>2.8</td>
</tr>
<tr>
<td>Accident pay</td>
<td>Law</td>
<td>0.2</td>
</tr>
<tr>
<td>Capital Accumulation payment</td>
<td>Tariff</td>
<td>1.8</td>
</tr>
<tr>
<td>Call in pay</td>
<td>Works Agr.</td>
<td>0.4</td>
</tr>
<tr>
<td>Travel money</td>
<td>Works Agr.</td>
<td>0.5</td>
</tr>
<tr>
<td>Others</td>
<td>-</td>
<td>4.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100</td>
</tr>
</tbody>
</table>

+ Employers contributions to social insurance = 15.1

There are three main sources of these payments. The first are tariff payments that have been agreed upon between the trade unions and the employers' associations, or in the case of a company agreement (Firmentarifvertrag) with management. These forms of collective bargaining are described and analysed in the next chapter. Another source is works agreements made between the works council and management. The company also makes unilateral voluntary payments for a number of criteria. Both these factors are considered in the chapter concerned with workplace relations.

219. Data from company personnel department. The wage gap here is around 45 per cent which is in line with the figure calculated for the chemical industry in general. However, only 20 per cent are plus-rate payments.
In summary, the various features of the economic development of the German chemical industry in the last decade have revealed that it was hit by a minor recession in 1970 and then by the greatest depression since the Second World War in 1974/75. The main effects of this recession were price increases, a drop in output, short-time working and unemployment in the chemical industry. However, some sectors fared less badly than others, provoking some industrial unrest in those companies like BASF which were less severely affected and which recovered well. (220)

An economic downturn of these proportions naturally had other consequences for industrial relations both nationally and in chemicals. Wage restraint was induced through union realisation that the membership was too frightened of unemployment to force large increases. (221) However, the wage gap does not seem to have been greatly decreased by the recession.

Such economic pressure, particularly as a result of international price competition, forced increases in productivity through investment and rationalisation. This also affected labour relations by strengthening fears of unemployment and by an increase in automation and plant size.

220. For a further discussion of the 1977 collective bargaining round see below and also Projektgruppe Gewerkschaftsforschung, 1978, op.cit., pp.118-185.

221. Another reason for wage restraint at this time is an attitude prevalent in the Chemical Workers' Union that it would be unwise "to slaughter the cow we want to milk". Interview FTO 4, Aug.'77.
In this chapter the complex inter-relationships between the technological characteristics, industrial organisation and the recent economic development of the West German chemical industry and their influence on labour relations in the industry have been discussed.

Advanced technology and continuous process production systems were seen to lead to a high degree of shift work, which itself affects industrial relations through the lesser awareness of shift workers on labour relations issues and their high job satisfaction based primarily on their earnings.

Technological progress was viewed both positively through its effects on working conditions and negatively because of the resultant redundancies, circumstances directly experienced by many chemical workers.

The capital intensity of the chemical industry both increases management's room to manoeuvre in negotiations due to the relatively low importance of labour costs whilst increasing the need for maximum usage of plant. Both factors would tend to be conducive to peaceful industrial relations.

The industrial organisation of the German chemical industry - highly concentrated, with numerous large companies and establishments - facilitates co-operation and co-ordinated action on the part of management. Company and establishment size also have a direct influence on the co-determination rights available to the workforce.
and indirectly on management policies towards the works council and unions.

The workforce structure in chemicals also influences labour relations due to the high percentage of white-collar and supervisory staff. The main consequences of this are low union densities and harmonious relations between line management and the workforce.

The diversification of major chemical companies provides economic strength in times of recession, thus contributing positively towards the climate of industrial relations in these companies. The location of these companies in specific regions gives them a particular significance in chemical industrial relations.

Despite two minor recessions the chemical industry in Germany has enjoyed rapid growth and economic strength, with a subsequent positive effect on negotiations, a topic considered in greater detail in the following chapter.
Collective bargaining in the West German chemical industry.

(i) Introduction.

Professor Clegg has recently defined collective bargaining as "the whole range of dealings between employers and managers, on the one hand, and trade unions, shop stewards and union members, on the other, over the making, interpretation and administration of employment rules, and the 'intra-organisational bargaining' that goes on within either side over the approaches and responses that they make to each other. It also includes bargaining between the two sides over the application of statutory controls."(1) As a result of the adoption of such a wide definition Clegg goes on to claim with apparent justification that "the process of industrial relations is essentially a process of collective bargaining". (2)

To define collective bargaining in such terms may seem very attractive; however, as far as West Germany is concerned, it only has limited validity. (3) The reason for this can be traced to the different basis upon which relations between employers and employees are conducted in the United Kingdom and the Federal Republic. (4)

The Collective Agreements Act (5) regulates which persons or associations

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2. Ibid., p.5.
3. Professor Clegg does not claim that this definition is universally acceptable.
4. Clegg has categorised two models, one based on statute law and the other on common law. The British system does not fit either model exactly but German may be classified as according to the statute law model. Ibid., p.117.
are permitted to engage in collective bargaining. As far as employees are concerned only trade unions may sign agreements whilst on the employers side both single employers as well as employers' associations may sign them. (6) Furthermore, these rights are limited to such employers' associations and trade unions which are associations according to provisions laid down in the constitution. (7) In order to be an association in this sense the organisations are required to fulfil a number of basic conditions such as be independent from their opponents, not be limited to a single factory or company, and aim to regulate the conditions of employment in one or more branches of the economy. (8)

In addition, those persons or associations which are permitted to engage in collective bargaining also have the right to do so without interference from outside parties. (9) In other words, as a result of the legal status afforded to collective agreements, the state has relinquished a part of its own legislative autonomy to a series of


7. The right of association is laid down in the Basic Law (Art.9 Para.3) and from this the right to form trade unions and employers' associations as well as not to become members of such organisations is derived along with a number of other implications. cf. A. Söllner, op.cit., p.53ff, and H. Reichel, "Recent Trends in Collective Bargaining in the Federal Republic of Germany," International Labour Review, December, 1971, p.496ff.


9. This right is known in German as Tarifautonomie and can be implied from the right of association in the Basic Law. C. Noe, Gebändigter Klassenkampf, Tarifautonomie im der Bundesrepublik Deutschland, Berlin, 1970, p.17f. Also A. Söllner, op.cit., p.110ff.
independent persons and associations.\(^{10}\) It is in the light of this that the conditions imposed upon such parties become comprehensible.

Besides regulating that collective agreements are binding in law, the Collective Agreements Act also specifies the form of agreements; that the conditions agreed upon are a minimum; that a peace obligation\(^{11}\) exists for both parties through the duration of the agreement and the circumstances under which the conditions in the agreement may be extended to cover all establishments in a sector of the economy as opposed to the normal situation which limits the applicability of the agreement to the signatory parties and their members.\(^{12}\)

Although works councils do bargain with management they are not associations under the conditions of the law and therefore such negotiations cannot, in Germany, be considered to be collective bargaining. In this way, the separation of issues which are covered by the Works Constitution Act and which may be regulated in the form of works council agreements from those negotiated by trade unions\(^{13}\) provides a useful

\(^{10}\) H. Weitbrecht, \textit{op.cit.}, p.18ff.

\(^{11}\) \textit{Friedenspflicht}. This means here that neither signatory parties or their members may engage in industrial action in order to change the conditions in the agreement throughout the course of its duration, and even beyond this until all reasonable attempts at negotiation have been made to effect a revision of the agreement. A. Söllner, \textit{op.cit.}, p.81ff.


\(^{13}\) In practice this separation is not always so clear. Collective agreements can regulate matters which affect all employees in a factory and may also cover a number of institutions which exist as a result of the Works Constitution Act such as arbitration boards (\textit{tarifliche Schlichtungsstellen}). A. Söllner, \textit{op.cit.}, p.122. On the other hand, works agreements may not regulate those issues usually included in collective agreements. W. Mühlbr, \textit{op.cit.}, p.222f. Nevertheless, this later regulation is occasionally ignored. See Chapter 5 below.
means of dividing the analysis of industrial relations into two parts.\(^{(14)}\)

As a consequence of these restrictions, collective bargaining in West Germany can only be considered to cover negotiations between trade unions and employers, whether individually — leading to the formation of company or works agreements — or collectively in associations.

Negotiations with employers' associations can be conducted at any level considered appropriate although the majority of agreements are either regional or national and cover a specific industry or sector of the economy. Furthermore, collective bargaining can cover a large range of issues both procedural and substantive\(^{(15)}\) and may also be taken to include intra-organisational bargaining, so long as those organisations are bargaining associations in the eyes of the law.

The aim of this chapter is, therefore, to both describe and analyse collective bargaining in the West German chemical industry according to this definition. It is proposed to consider collective bargaining in four sections although a great deal of overlap exists between these various forms of negotiations. An analysis of intra-organisational bargaining which is generally applicable to the various levels of negotiations is followed by a consideration of the regional bargaining

14. Negotiations between trade unions and employers are considered in this chapter whilst relations between works councils and management are dealt with in the next.

15. Ibid., p.61f and A. Söllner, op.cit., p.122f.
process. Until very recently this was the most important form of collective bargaining in the chemical industry since wages, salaries and some conditions were negotiated at this level. Although regional bargaining may be declining in importance it still serves to illustrate the bargaining relationships which exist between the chemical employers and the Chemical Workers' Union.

The discussion of collective bargaining continues with an analysis of national bargaining and is concluded by a consideration of domestic bargaining as undertaken by the Chemical Workers' Union with individual companies which are not members of employers' associations. Finally in the light of this discussion conclusions are drawn about the contribution collective bargaining makes towards the regulation of employee-employer relations in the West German chemical industry.

(ii) Intra-organisational bargaining.

Although the intra-organisational bargaining which occurs both within the chemical employers' associations and the Chemical Workers' Union prior to the opening of negotiations and during the bargaining process is not carried out in isolation of what the other side has been doing, it is nevertheless dealt with separately in each of the two organisations for the sake of simplicity.

a. Chemical Workers' Union.

The range of intra-organisational bargaining in trade unions has been illustrated by Walton and McKersie:

16. Wages have been negotiated nationally on three occasions. In 1975 the economic situation caused the union leadership to take over the negotiations and in 1978/1979, combination of the wage round with bargaining about conditions normally agreed nationally led to all negotiations being carried out centrally. This trend is discussed in greater detail below.
"The organizations participating in labor negotiations usually lack internal consensus about the objectives they will attempt to obtain from negotiations, and this is especially true for labor organizations. Different elements of the organization may have different ideas about the priorities assigned to the various objectives being pursued, or they may disagree on what should be minimally acceptable for the total contract. Disagreement can also exist around strategies and tactics and around such questions as which items are distributive issues and which are problems with potentially integrative solutions. Similarly, there may be a lack of consensus about what type of relationship should be developed with the other party." (17)

The position of the leadership within the Chemical Workers' Union has been considered above and here their attempts to co-ordinate bargaining between the various regions and factions in the union are also examined.

Until the early 1970's there was only ad hoc co-ordination of bargaining in the Chemical Workers' Union. However, as the employers had been continually increasing their own internal co-ordination it became necessary for the union to react to this and to introduce rather more stringent co-ordination. (18) The requirement became quite unequivical as a result of the collective bargaining round in 1971. In this particular year the first sizeable strike for fifty years occurred in the German chemical industry. Four regions of the Chemical Workers' Union were eventually to come out on strike and yet the region Rheinland-Pfalz, which is one of the three biggest and amongst the first to negotiate, decided to accept the employers' offer. (19) The employers and the press were able to make considerable capital of this and it

19. Dzielak et al., op.cit., passim and especially p.139.
contributed to the failure of the strike.\(^{20}\)

The initial aims of the increased co-ordination as presented in the report to conference the following year included a consideration of the economic and social situation in the industry, planning the dates for negotiations, as well as guiding the demands and the final agreements.\(^{21}\)

The mistakes of 1971 had provoked much thought within the union generally and as a result of this a motion on the subject of the co-ordination of bargaining was brought to conference.\(^{22}\) Conference decided to refer this motion to the NEC as the main guideline for co-ordination,\(^{23}\) but did not make the motion part of the bargaining guidelines. Although the motion sets out clearly what should happen in the way of co-ordination at various stages of the bargaining round it is not usually applied in its entirety.\(^{24}\)

Since then co-ordination of bargaining has increased steadily\(^{25}\) with the central aim being to make decisions on the tactics and strategies required through the collective bargaining round. To carry this out the regional secretaries generally meet with the NEC some five or six

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20. Ibid., p.425 and Interview FTO 6, Aug.'77. Also op. Chemie-
tarifrunde 1971, op.cit.


22. The origin of the motion was the Regional Committee in Nieders-
sachsen, a region which generally shows progressive policy in collective bargaining (Informal discussions and Protokoll 1972, op.cit., Anhang p.18). For a consideration of the discussion of this strike at the National Conference in 1972 of. Dzielak et al., op.cit., p.419ff.

23. This was the recommendation of the Rules Committee and is illustrative of the influence of this committee at National Conferences. Ibid., p.250f.

24. For example, the referral back to the Vertrauensleute recommended only occurs in Niedersachsen. See below.

25. The central negotiations from 1975 onwards might be considered to be an ultimate form of co-ordination.
Doubts about the efficacy of the system of co-ordination are raised, however, by experiences in the 1977 wage round. In order to gain further insight to the system of co-ordination and intra-organisational bargaining in general, occurrences in this year will be considered as a form of case study.\(^{(27)}\)

The NEC and regional secretaries began holding co-ordination meetings for the coming wage round almost two months before the first agreements were terminated. They decided to recommend to the lay officers and other members of the organisation that a level of demands between 9 and 9.5 per cent would be suitable.\(^{(28)}\) In all, seven meetings were held between NEC and regional secretaries through the course of the collective bargaining round and it was decided that any region who received an offer of 7 per cent from the employers was free to settle.

Given the relatively good economic forecasts at this time these recommendations from the NEC can be seen to be an attempt to keep a number of groups happy. By setting the limits for the demands fairly low (yet not too low) the NEC could avoid any criticism of endangering the economic recovery from sections of their own union and from the employers.

\(^{26}\) Interview FTO 11, Sep.'77.

\(^{27}\) Information for this section is based primarily on Projektgruppe Gewerkschaftsforschung, 1978, op.cit., pp.118-185 and on interviews held just after the dispute situation was over.

\(^{28}\) Lay officers rights under the collective bargaining guidelines in the Chemical Workers' Union are discussed in greater detail below.
On the other hand, by keeping the gap between demands and final level of settlement low, the NEC could hope to minimise criticism from within the union that they were prepared to accept offers which were too low. In previous years such criticism had occasionally been voiced.\(^{(29)}\)

Negotiations broke down in Nordrhein and Rheinland-Pfalz after two meetings and the way things were developing - that is, towards a dispute - were fairly clear. Despite this the Hessen region reached agreement at a third meeting. Since Hessen had achieved the 7 per cent limit set in the co-ordination meetings, and given the relative weakness of the union in the Hoechst works the acceptance is understandable. However, it did enable the employers once more to make vast public relations use out of the varying union standpoints.

Given this occurrence the NEC's decision to prevent Nordrhein entering a dispute situation by use of the vote of their representative on the conciliation board also becomes comprehensible.\(^{(30)}\) Not only is the union weak at Bayer but by so doing they were able to limit the dispute to Rheinland-Pfalz and concentrate their efforts there.

However, the union explanations of these moves used at a later stage, which were that they had limited the dispute to Rheinland-Pfalz in order

29. Informal discussions.
30. In the Rheinland-Pfalz conciliation the NEC representative had not been prepared to follow their instructions to settle, for to have done so would have been totally against the feelings in the region. Such action would probably have cost this NEC member many votes when it came to re-election at the next national conference. For further details on conciliation see below.
to prevent a lock-out over a large area can be rejected as a bald excuse. At no time have the chemical employers seriously contemplated the use of the lock-out. Not only does this go against their tactics of keeping plant running at all costs, but it would also be technologically very difficult since they would have to run down all the plants. Such action would require the help of the workers which under the circumstances might not be forthcoming, even given the general co-operation between management and workforce in the German chemical industry.

This case study illustrates the situation that despite extensive attempts at co-ordination and considerable powers the NEC was not able to impose a unified course on the union. Whether criticism for this is laid at the door of Rheinland-Pfalz for trying to get a better agreement or Hessen for not being prepared to delay the proceedings depends on one's point of view.

An additional result of the failure of the strike in the chemical industry in 1971 was a formalisation of intra-organisational bargaining, the aim of which was to increase the involvement of lay officers. In this way it was hoped that the level of demands would be more likely

31. No employers' representative interviewed was prepared to admit to a willingness to resort to the lock-out.

32. This was the policy in 1971 and 1977. cf. Ibid., and Dziela et al., op.cit., p.388f.

33. A study of the position of lay officers in the Chemical Workers' Union dealing with many relevant issues may be found by consulting: D.R. Ebsworth, "Lay Officers in the German Chemical Workers' Union: a Case Study", Industrial Relations Journal, forthcoming, 1980.
to reflect the feelings of the rank and file members and that the lay officers would feel more committed to the demands. This latter factor is of considerable significance in the case of a dispute developing for the lay officers' support is crucial to the success of the sanctions.

After the NEC makes its recommendations on the level of demands the Vertrauensleute debate them amongst themselves, and theoretically also with the members they represent. However, since many lay officers interviewed at Agrochemie AG did not consider that they represent particular groups of members, a degree of doubt must be expressed as to whether the lay officers discuss the demands with the members. (35)

It appears that factionalisation occurs to a certain extent within the Vertrauensleute leading basically to the formation of two groups. These groups have been called "Lohnwissenschaftler", mainly highly paid salaried staff and "Tarifpolitiker" who are primarily representatives of manual workers. (36) The crux of the disagreement between these groups is differentials. From 1973 to 1976 there was a tendency to have a minimum amount fixed into the percentage wage increase. (37) In 1976

34. Vertrauensleute is used here since these rights apply both to lay officers and works councillors who automatically have the status of Vertrauensleute. cf. Ibid.

35. In fact, there is some evidence that lay officers' rights are not used at all in some parts of the union. cf. Projektgruppe Gewerkschaftsforschung, 1978, op. cit., p.123.

36. Ibid., p.126ff. Translation of these terms presents some considerable difficulties.

37. Ibid., p.122. An employers' representative stated that as a result of this the differentials between the top and bottom wage rates was now only 14 per cent as opposed to 22 per cent previously. He claimed this as one of the reasons for high wage gap since local payments were used to restore differentials. Interview ER 6, Aug.'77.
disagreements between the two groups came to a head and were nearly impossible to reconcile. Since then the "Lohnwissenschaftler" have apparently gained the upper hand for the demands made have only been for percentage increases.

Generally speaking the Vertrauensleute accept the recommendations of the NEC as to the level of demands, if sometimes somewhat grudgingly. The level of demands is usually debated at a meeting of Vertrauensleute which is also attended by a district full-time officer whose job is normally to represent the position taken by the NEC, and to pass on the decision of the Vertrauensleute to the collective bargaining committee. However, the Vertrauensleute do not have the right to determine the actual level of the demands. This is carried out by the collective bargaining committee after collating the recommended level of demands from all the works.

During the course of the collective bargaining round there is a certain amount of reporting back to the Vertrauensleute and indeed to the members.


40. Thus a breakdown of demands from chemical works in Hessen in 1977 shows that 64 per cent accepted the NEC's recommendations, 21 per cent demanded more than was recommended with the highest demand 10.5 per cent (viz.NEC 9—9.5 per cent). The remaining works wanted flat rate increases; also many of those works demanding more than recommended had minimum increases as a part of their demands. Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.124f, own calculations.

41. In informal discussions the NEC recommendation was likened to a papal edict.

42. IG Chemie, Richtlinien für die Tarifarbeit, valid from 1.1.1973, Para.VII.
This is usually carried out by holding meetings and by distributing leaflets. The rights of Vertrauensleute here are limited to consultation and information and yet even such relatively modest incorporation of workplace representatives into collective bargaining is unusual in Germany. In fact, one commentator has stated that:

"Of all the trade unions in the DGB, the Chemical Workers' Union doubtless grants its Vertrauensleute the most extensive rights within the organisation." (44)

This statement may seem somewhat surprising but it has apparently been confirmed by the present research. The Vertrauensleute do also have certain additional powers which are of significance when accepting this evaluation and which should also be considered a part of intra-organisational bargaining.

In one region, Niedersachsen, of the Chemical Workers' Union the regional secretary has instituted a policy of allowing time for potential agreements to be referred back to the Vertrauensleute. Use of such procedures has been a subject of some considerable controversy within the union, although in Niedersachsen it is used for all major agreements and it is felt that it would be impossible to revert to a system

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45. This is known in German as an Erklärungsfrist. The regional secretary can base this action on a conference decision in 1972, of. Protokoll 1972, op.cit., Anhang p.18.
which does not include referral back to the Vertrauensleute.\footnote{46}

During the time allowed to consult the Vertrauensleute a ballot is carried out to discover what the workplace representatives think about the proposed agreement. By chance the Agrochemie AG case study was carried out in this region. Apparently the unusualness of the rights was not appreciated by the Vertrauensleute there, as is indicated by the following statements:

"We're always asked what we think of the results and we never get what we originally wanted. But not much is going to change at this stage - it's a formal thing really." (Interview VL 1, Oct.'78).

"When there's an agreement we have to say 'yes'. They don't really ever say 'no' here as we would have to go to a strike ballot or a strike and you can't know what might come of that." (Interview VL 4, Oct.'78).

The regional secretary introduced this procedure for several reasons. Not only is he committed to internal democracy within the union but it also provides a very useful early indication of the feelings of the Vertrauensleute in the region. In this way it can serve as an early form of strike ballot, although he would not normally consider refusing the agreement unless it was rejected by over 75 per cent of Vertrauens­leute.\footnote{47} The second statement above seems to suggest that the system works as it is intended to do.

Other regional secretaries in the Chemical Workers' Union have rejected

\footnote{46. Interviews FTO 5 and FTO 6, both Aug.'77.}

\footnote{47. Interview FTO 6, Aug.'77. This reflects the support which would be required for strike in the case of a strike ballot. However, if solidarity was required, especially in the case of domestic bargaining, he might consider rejecting an agreement without this level of support.}
this system as "too much democracy".\footnote{48} Actually, the system does have a number of potential problems. According to its opponents it puts the collective bargaining committee in an awkward position since it might seem to the employers that the committee is unable to make the final decision. This might induce the employers to withhold concessions in case the union decides it has to reopen negotiations as a result of reference to the \textit{Vertrauensleute}.\footnote{49} Other problems with the application of this type of system of representational democracy can arise if the \textit{Vertrauensleute} cease to represent the feelings of their members, something which is not unknown.\footnote{50} Furthermore, should \textit{e.g.} 60 per cent reject the agreement and the collective bargaining committee nevertheless accept it, then the \textit{Vertrauensleute} are likely to be dissatisfied with their representatives on the committee. This could then lead to the ejection of experienced negotiators from the committee,\footnote{51} and since it takes times to gain experience and knowledge in bargaining this could create problems for the senior negotiator.\footnote{52}

This system is an interesting extension of internal union democracy and it seems to function as intended by the regional secretary responsible for its introduction. At the same time problems with the application

\footnote{48}{For example, Interviews FTO 7, Aug.'77 and FTO 10, Sep.'77.}

\footnote{49}{Interview FTO 7, Aug.'77. However, such difficulties have not prevented the NEC using a similar system for their recent national wages and conditions negotiations where they allowed the regional bargaining committees to ratify the agreement. "Tarifrunde Chemische Industrie - Tarifrunde abgeschlossen: Alle Tarifkommissionen stimmten zu," pressedienst, XV/22, 2.4.1979.}

\footnote{50}{Interview FTO 5, Aug.'77.}

\footnote{51}{Interview FTO 1, Aug.'77. The electoral system for the collective bargaining committees is discussed presently.}

\footnote{52}{Interview FTO 6, Aug.'77.}
of the system could develop, although it seems more likely that a
schism is far less likely to develop between full-time and workplace
union officials under such a system, and this kind of gain is worth
slight risks.

In the Rules of the Chemical Workers' Union it is stated that:

"The members of the collective bargaining committees are to be
elected at Vertrauensleute meetings and must be ratified by the
district executive." (53)

It is here, therefore, that the real power of the Vertrauensleute
within the intra-organisational bargaining system is rooted for even
full-time officers (54) who want a place on the bargaining committee must
be elected by the workplace representatives. At present, elections
for the bargaining committees are held every four years. (55) A
consideration of the type of officials elected onto the bargaining
committees should prove enlightening.

53. Author's translation of: "Tarifkommissionmitglieder werden
in Vertrauensleute - Versammlungen gewählt und bedürfen die
Bestätigung durch den Verwaltungsstellenvorstand." IG Chemie,
Satzung 77, op.cit., Para 13. These rights were also intro­
duced as a result of the chemical industry strike in 1971.
of. Dzielak et al., op.cit., p.424ff.

54. Except the senior negotiator who in the case of regional
bargaining is usually the regional secretary or his delegate;
national negotiations are led by the NEC officer responsible
for bargaining and domestic negotiations normally by a
regional or district officer. Interviews FTO 6, Aug.'77,
FTO 10, Sep.'77 and FTO 17, Feb.'78. Re-election is possible
and many senior works councillors serve on the bargaining
committees for a considerable period of time.
Interview BRV 1, Aug.'77.

### Table 4.1.
Structure of the regional collective bargaining committee for the chemical industry in Hessen 1975/76. (56)

<table>
<thead>
<tr>
<th>Total Number of Members</th>
<th>31</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Full-time Officers</strong></td>
<td>2</td>
</tr>
<tr>
<td>(Senior negotiator + 1 District Secretary)</td>
<td></td>
</tr>
<tr>
<td><strong>Workplace Representatives</strong></td>
<td>29</td>
</tr>
<tr>
<td><strong>Works Councilors</strong></td>
<td>29</td>
</tr>
<tr>
<td>Of whom:</td>
<td></td>
</tr>
<tr>
<td>- full-time</td>
<td>20</td>
</tr>
<tr>
<td>- chairmen</td>
<td>19</td>
</tr>
<tr>
<td>- district committee members</td>
<td>23</td>
</tr>
<tr>
<td>- Regional/National EC members</td>
<td>7</td>
</tr>
<tr>
<td><strong>Lay Officers</strong></td>
<td></td>
</tr>
<tr>
<td>Of the workplace representatives there were:</td>
<td></td>
</tr>
<tr>
<td>Workers</td>
<td>17</td>
</tr>
<tr>
<td>Salaried Staff</td>
<td>12</td>
</tr>
<tr>
<td>Women</td>
<td>1</td>
</tr>
<tr>
<td>Youths</td>
<td>1</td>
</tr>
</tbody>
</table>

The under-representation of lay officers deserves investigation since lay officers would have the potential to numerically outnumber works councillors at the meetings of Vertrauensleute. However, evidence from Agrochemie AG seems to suggest that many lay officers do not

56. Projektgruppe Gewerkschaftsforschung, Vol.1, 1979, *cit.*, p.132. There are a large number of collective bargaining committees in the Chemical Workers' Union due to the wide organisational range (see Appendix 1, Table 6). In the chemical industry there are 12 regional, 1 national and numerous domestic bargaining committees. Interviews FTO 6, Aug.'77 and FTO 10, Sep.'77. Since Hessen is one of the more important regions it can be expected to be fairly typical of this type of region.
attend these meetings, especially when they work shifts. In addition, works councillors usually have more experience, are better schooled by the union and have what amounts to a monopoly of information as a result of the Works Constitution Act.\(^{57}\) Under such circumstances the under-representation of lay officers becomes less surprising.

The guidelines state that the size of bargaining committees should be between 10 and 30 in the case of workers and staff negotiating together as is the case in the chemical industry.\(^{58}\) Generally there are about 30 on the committee according to respondents\(^ {59}\) and as indicated by the table.

The number of full-time officials on the committee is normally small, for example, there were also only two on the committee in Nordrhein,\(^ {60}\) so the regulation specifying that full-time officers should always be in the minority\(^ {61}\) can be seen merely as a safeguard.

The high percentage of salaried staff representatives\(^ {62}\) can be seen as ensuring that the interests of this minority group are not neglected\(^ {63}\) but since other minority groups such as women and youths are not

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57. See Chapter Five below.
58. Tarifrichtlinien, op.cit., Para. V111/2. Reserve members are also elected in case the primary member is unable to attend. Ibid., Para. V111/6.
59. e.g. Interview FTO 10, Sep.'77. cf. Also Tarifrunde ..., "pressedienst, XV/22, op.cit.
60. Interview FTO 9, Aug.'77.
62. Only 19 per cent of members in the Chemical Workers' Union Hessen region are staff. GB 72-75, op.cit., p.293, own calculations.
63. This is the opinion expressed in Projektgruppe Gewerkschaftsforschung, Vol.1, 1979, op.cit., p.131.
similarly over represented it is more likely to be a reflection of the
trength of the salaried staff group within the union officialdom. (64)

A significant amount of power lies within the grasp of the collective
bargaining committees since it is their task to decide on when to termi­
nate agreements, on the type and level of the demands, to carry out
the actual bargaining, to select the officials who enter into the
detailed negotiations and finally to accept or reject the agreement
proposed by their negotiators. (65)

Despite the background of the majority of the members on the collective
bargaining committee there is some limited evidence that they are not
monolithic bodies, although generally the representatives of a different
policy to that of the NEC are in a minority. As a result the level of
demands, and type of demand reflects that recommended by the NEC and
generally accepted by the Vertrauensleute. (66) The NEC has also been
able to win support for such matters as the conducting of national wage
negotiations and for acceptance of the result of such negotiations. (67)

64. of. Dzielak et al., op.cit., p.381f. At the same time, however,

attempts are made to reflect the structure of the chemical works
represented by the committees so that the employers arguments
about various sectors of the industry can be met. Interview
FTO 5, Aug.'77.

65. Tarifrichtlinien, op.cit., numerous interviews and Projektgruppe


67. A considerable amount of criticism arose out of the way in which

central negotiations were carried out in 1975. Subsequently,

the NEC confirmed that this could only occur provided the re­
gional bargaining committees gave their permission. Protokoll
1976, op.cit., p.552ff. However, in 1978 resort was once more
made to national negotiations without prior consultation, al­
though agreement was given in retrospect of. "Tarifrunde chemische
Industrie - Tarifkommissionen stimmen Ergebnis zu - IG Chemie-
Hauptvorstand nimmt Tarifverhandlungen an," presse­dient, XIV/13,
17.4.1978. Again considerable criticism was voiced (e.g. Inter­
view BR 2, Oct.'78, also informal discussions) so that in 1979
the NEC made quite certain that adequate consultation occurred.

of. "Tarifgespräch ...", presse­dient, op.cit., and "Tarifrunde
abgeschlossen ...", presse­dient, op.cit.
Although the senior negotiator seems to be able to exert considerable influence on the path taken by the bargaining committees because of his personal status and experience, and because negotiations in the latter stages are carried out primarily by him; however, the committee can exercise control on the proceedings. A good example of such an instance is provided by the stance adopted by the Rheinland-Pfalz bargaining committee in 1977. The co-ordination guidelines permitted agreement once an offer of a 7 per cent increase was obtained from the employers, but after considerable debate the Rheinland-Pfalz committee instructed their senior negotiator not to accept anything below 7.3 per cent - a decision which determined the subsequent course taken by this region.\(^{68}\)

Although a simple majority is all that is required for the collective bargaining committees to make a decision,\(^{69}\) it is unlikely that a senior negotiator would accept such a decision for it is quite possible that the support of the rank and file members would be limited. One regional secretary said he would never accept anything below a two thirds majority - generally the majority is even more convincing, such as 90 per cent in 1977 in this same region.\(^{70}\)

Discussion of intra-organisational bargaining in the Chemical Workers' Union has concentrated on a number of features. The NEC has increased its hold over bargaining throughout the union by employing several


\(^{70}\) Interview FTO 7, Aug.'77.
methods. Co-ordination of bargaining between the various regions has been increased and on a number of occasions national negotiations have supplanted the regional ones. The NEC has also generally been able to gain acceptance of its proposals as to the type and level of demands put to the employers, even in the case of regional negotiations.

At the same time, however, Vertrauensleute - that is to say lay officers and works councillors - have extended their influence on bargaining. The Chemical Workers' Union has the most extensive consultation and information rights for workplace representatives of all the DGB unions. The centre of this influence rests with the electoral rights which Vertrauensleute possess in respect of the collective bargaining committees, although due to apathy and a lack of experience the lay officers are severely under-represented. The factional splits in the Chemical Workers' Union also have a significance as far as intra-organisation bargaining is concerned, particularly where debating the level of demands to be made to the employers is concerned.

The collective bargaining committees hold a position of some power should they be certain of support from the membership. It has been possible for committees to determine the course of negotiations despite the influence which the NEC can exert through their representative on the conciliation board.

b. Chemical employers' associations.

Intra-organisational bargaining in the West German chemical employers' associations occurs within a relatively small number of bodies and on
variety of levels. In increasing importance are the collective bargaining committees of the regional employers' associations, the bargaining federation between the three most important regional associations, Nordrhein, Hessen and Rheinland-Pfalz, the national collective bargaining committee and the Coordination Committee which is by far the most significant.

The intra-organisational bargaining generally begins at a fairly early stage within the collective bargaining and executive committees of the various regional employers' association. The importance of large companies on these bodies has been discussed above and it is likely that such companies play a very important part within intra-organisational bargaining both regionally and nationally.

The size of the regional collective bargaining committees on the employers' side seems to vary as there are around 12-16 members in Hessen and 30-40 in Nordrhein. Usually the members of these committees are personnel managers of board level together with the senior official of the employers' association.

Attempts are made to represent the regional structure of the chemical industry on the committee in order to be able to bring arguments from a number of angles when negotiating with the unions and also so that the

71. Tarifgemeinschaft, whereby the separate regional negotiations for these three associations are conducted by committees including representatives of all associations and the agreements signed on behalf of all the three associations. Interview ER 1, Aug.'77.

72. For the rules of this committee cf. Koordinierungsgrundsätzte, op.cit.

73. cf. Chapter 2, Section (iii)a.

74. Interviews ER 1, Aug.'77 and ER 7, Sep.'77. Also cf. Projektgruppe Gewerkschaftsforschung, Vol.1, 1979, op.cit., p.120f.

75. Interview ER 1, Aug.'77.
various sections of the industry feel that they are being adequately represented.\(^{(76)}\)

The early discussions characteristically lead to an evaluation of the economic situation and of the possible level of concessions which might be feasible. The actual offers to be made are not decided, however, until a later stage in the negotiations. The three main regions are particularly influential as far as the early discussions are concerned since bargaining in these regions predates that in the others by one or two months and due to the concentration of chemical industry located there.\(^{(77)}\)

Not until the trade union has actually begun to make demands does the Co-ordination Committee meet,\(^{(78)}\) and it lays down strict guidelines for the conduction of negotiations based on the prior discussions which took place in the regional associations.\(^{(79)}\)

For national issues a corresponding collective bargaining committee exists on the employers' side which since it consists of the most important personnel directors in the chemical industry along with the most senior full-time officers is empowered to take decisions without referral to the Co-ordination Committee.\(^{(80)}\)

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76. Interview ER 6, Aug.'77.
78. The structure and election of this committee are discussed in Chapter 2, Section (iii)a above. Also cf. Grundsätze, op.cit., Section I(1).
80. Interviews FTO 5 and FTO 7, both Aug.'77; ER 8, Sep.'77.
According to a recent research report:

"During the actual negotiations the Co-ordination Committee is the actual body which makes the decisions on all matters that are relevant to the negotiations." (81)

The co-ordination of bargaining on the employers' side in the chemical industry dates back to the beginning of the 1960's. In 1962 the Meeting of Representatives of Member Associations (82) of the Arbeitsring decided to introduce guidelines for the co-ordination of bargaining. (83) There are apparently a number of reasons for the employers' desire to introduce co-ordination into collective bargaining. The major chemical companies have establishments in a variety of regions and similar wage rises would be simpler to apply across each company than widely divergent ones. (84) Agreed rates of increase in wages also contribute to a reduction of competition for labour from one region to another in times of labour shortage (85) whilst in economic recessions the employers' are more able to act in a concerted way. (86) In general, however, the major advantages that the employers' associations seem to draw from closely co-ordinating their bargaining are the strength of solidarity and the unified application of their bargaining tactics.

There have been several examples which illustrate these points. During the chemical industry strike in 1971 a Hamburg based chemical company


82. cf. Figure 2.2.

83. 25 Jahre Arbeitsring, op.cit., p.6.

84. Interview ER 1, Aug.'77. Nevertheless regional wage rates do vary considerably. cf. Zahlen zur Sozialpolitik, 1979, op.cit., p.18f.

85. Interview ER 1, Aug.'77.

86. Interview ER 4, Sep.'77.
accepted a domestic agreement with the Chemical Workers' Union rather than risk the consequences of the strike. As a result of this the company was expelled by its employers' association.\(^{(87)}\) Perhaps as a result of this prompt expulsion and the system of strike defence funds which made deviation from central policies more penal as time progressed, this was the only firm to deviate from the unified employers' course.\(^{(88)}\)

In both 1971 and 1977 the chemical employers were able to outmanoeuvre the union by inducing at least one region to come to agreement at an earlier stage than the others and then using this lack of unity on the union side extensively in their public relations campaign.\(^{(89)}\)

With very few exceptions the regional wage negotiations result in agreements which are extremely similar from one region to another, if not identical.\(^{(90)}\) Furthermore, unified activities on the employers' side have been facilitated by the increasing propensity of national wage negotiations, something which the employers would prefer to be a permanent institution.\(^{(91)}\) The co-ordination of bargaining on the employers' side has apparently proved its worth and the mechanism of this co-ordination therefore deserves further consideration.

\(^{(87)}\) Chemietarifrunde 1971, op.cit., p.38.

\(^{(88)}\) Dzielak et al., op.cit., p.394f.


\(^{(91)}\) Interviews ER 1, Aug.'77 and ER 4, ER 7, ER 8, ER 10, all Sep.'77.
Part of the strength of the co-ordination may be found in the regulations which specify that each individual association must, for example, inform the Arbeitsring of the termination of agreements by the union, the level of demands subsequently presented, the dates of all negotiations and preliminary discussions on the employers' side and the associations must also immediately supply all information and documents to the Arbeitsring to enable it to judge the situation. \(^{(92)}\)

Furthermore, the Arbeitsring must be given the opportunity to take part in relevant discussions and to present its opinions. The primary aim of this attendance is to ensure that the guidelines decided by the Co-ordination Committee are followed. \(^{(93)}\) Before the negotiations actually take place the collective bargaining committee and the Co-ordination Committee generally have a joint discussion of the situation to decide on tactics and the level of concessions which can be made. \(^{(94)}\)

In the case that anything of significance is likely to occur during the course of a particular negotiation then the Co-ordination Committee is present either in its entirety or else as a sub-committee. \(^{(95)}\) Only the Co-ordination Committee or its sub-committees are empowered to make a decision about the level of concessions to be made, and if there is disagreement about the matter under consideration then a vote must be

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93. Kordinierungsgrundsätze, op.cit., Section I (4).

94. Interview ER 8, Sep.'77.

95. This sub-committee is known as the Beschlussgremium, or Decision Body and usually consists of 5 members. Should particular representatives of the Co-ordination Committee not be able to attend then they may delegate their voting rights to region. Kordinierungsgrundsätze, op.cit., Section I (1,5) and Interview ER 8, Sep.'77.
taken. Although this is rare, it is not unknown.\(^{(96)}\)

Within the Co-ordination Committee the three largest regions hold the majority of the seats.\(^{(97)}\) However, in order to prevent these regions from dominating the committee entirely the smaller regions do possess veto rights.\(^{(98)}\) In the case, though, that a particular association has been unable to achieve agreement with the union within the guidelines laid down by the Co-ordination Committee, this same committee may release the association from the restrictions of the guidelines provided that a simple majority of the representatives of the various members associations agree on such a course of action.\(^{(99)}\)

The influence of the Co-ordination Committee and also of the Arbeitsring in general extends to all the stages of the bargaining process, even during the joint conciliation meeting\(^{(100)}\) or after its failure. The Co-ordination Committee may still decide to refuse to permit concessions which the association affected may desire to make.\(^{(101)}\)

The Co-ordination Committee is the place where intra-organisational bargaining of significance to the way in which the chemical employers' associations conduct negotiations and the size and type of concessions they make primarily occurs. Results seem to indicate that this

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96. Ibid.
98. Ibid.
100. Through the presence of senior representatives on the conciliation panel; for further discussion of joint conciliation, see below.
101. Koordinierungsgrundsätze, op.cit., Section I (5).
bargaining is successful in achieving its aims which are the acceptance of unified policy by the various associations and the maintenance of this solidarity in its negotiations with the trade unions. Furthermore, in this way bargaining tactics have also been effective.

(iii) **Regional bargaining.**

In the West German chemical industry collective bargaining between the Chemical Workers' Union, (102) and the various employers' associations has occurred either at a regional or at a national level. There has already been a degree of discussion of the recent changes within the bargaining arrangements for the chemical industry whereby wage and salary negotiations, which have traditionally been held at regional level, have taken place nationally. (103) One reason for the willingness of the union leadership to agree to bargain nationally on wages and salaries in 1977 and 1978 was certainly the termination of the national agreement on general conditions of employment at the end of 1977. (104) In this way the leadership was prepared to combine the wage round with the national negotiations particularly since the employers' agreed to a concession of an additional two days holiday even before formal negotiations had begun simply in order to persuade the

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102. The strength of the German Salaried Staff Union in the chemical industry was discussed above (Chapter 2, Footnote 174), and found to be of such an order that it is justified to ignore this union when analysing collective bargaining although negotiations do take place with this union. cf. Chemie-tarifrunde 1977, op.cit., p.20; Chemie-tarifrunde 1971, op.cit., p.49 and Dzielak et al., op.cit., p.381. Except in the case of negotiations on wages and conditions of academic staff (see Chapter 2, Section (iii)b) the Chemical Workers' Union refuses to negotiate jointly with the DAG since the DAG has tried to make it seem as if the results of wage negotiations, etc. were a result of the bargaining stance adopted by the DAG. Interviews FTO 4 and FTO 6, both Aug.'77; FTO 11, Sep.'77.

103. cf. Chapter 2, Section (ii).

union to bargain all issues nationally. (105) As the national negoti­ations were not completely resolved in 1978 (106) similar circum­stances existed in 1979.

However, with the resolution of the national issues during 1979 (107) there is theoretically no reason for wages to be negotiated nationally, at least for several years to come. It will be interesting to observe whether the employers are able to retain national negotiations which they find preferential or whether sufficient pressure will develop within the lower echelons of the union to persuade the leadership to return to regional negotiations. This latter course seems somewhat more probable since regional negotiations have been of considerable importance in the past and it is likely that they will regain some of their importance in the future. Furthermore, regional negotiations provide an excellent example of the relationships between the Chemical Workers' Union and the chemical employers' association and many charac­teristics of this relationship as illustrated here are found elsewhere within the bargaining system. Regional negotiations are therefore dis­cussed in some detail.

The intra-organisational bargaining in the two bargaining parties which was considered above forms an integral part of the initial phase of negotiations. This initial phase might be described as 'a long overture'.

105. Informal discussions provided this information. This provides an example of one of the rare instances of pre-negotiations which sometimes occur in Germany prior to the start of formal negotiations.

106. For a discussion of national negotiations particularly with reference to these questions see below.

In the Chemical Workers' Union preparations for the annual regional bargaining round often commence many months before the round itself. Sometimes weekend conferences are held for lay officers and members of the collective bargaining committees in order to discuss the economic situation and its relevance to the negotiations.\(^{(108)}\)

At an early stage data is also prepared by the economic research section of the union at the central office. Besides the economic state of the industry\(^{(109)}\) many other factors relevant to the bargaining round are studied, such as union strength and the feelings of the shopfloor members.\(^{(110)}\) Meanwhile, the employers' associations are also preparing extensive statistics on similar matters both regionally and nationally. Such statistics are, however, slanted from the employers' point of view as the union's data is chosen to support their own position.\(^{(111)}\) In addition to the generally available public statistics, the employers' associations sometimes carry out surveys of their member companies to gauge the situation by collating current information.\(^{(112)}\)

Approximately one month\(^{(113)}\) before the current agreement is due to end

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109. A list of the type of data which is often prepared may be found in G. Himmelmann, op.cit., p.137. It includes such things as developments in productivity, profits, prices, turnover, etc.

110. Interview FTO 6, Aug.'77.

111. Interview ER 6, Aug.'77.

112. However, the use of such statistics in negotiations is not without problems as the other side is often reluctant to accept their validity. Interview ER 7, Sep.'77.

113. This is the usual notice of termination required for wage agreements cf. Lohntarifvertrag, Gehaltstarifvertrag und Abkommen über die Ausbildungsvergütungen für die chemische und kunststoffverarbeitende Industrie des Landes Niedersachsen, Hannover, 15.6.1977, Paras 4/7 respectively.
notice of termination of the agreement is sent to the employers' association by the union's collective bargaining committee. If the demands are ready at this stage of the proceedings then they may accompany the notice of termination, otherwise they are sent to the employers' association later. (114)

Another feature of the initial stages of each collective bargaining round is the commencement of the battle of words in the media. On the trade union side articles appear in the official publications and the press are kept well informed of the situation through press circulars. (116) The employers provide similar information to the press as well as to managers and other groups through their own publications. (118) Indeed, "after the trade union has made its demands in the first three regions, the employers increase their public relations activities". (119) Such activities may consist of holding press conferences, and giving interviews to important papers. (120)


118. For an example for this using a senior government minister to increase the effect cf. O.Graf Lambsdorff, "... wir setzen auf die gesamtwirtschaftliche Einsicht der selbständig entscheidenden Tarifparteien," Infobrief, 12/77, p.2f.

119. Author's translation of "Nachdem die Gewerkschaft ihre Forderungen für die ersten drei Bezirke auf gestellt hat, verstärken die Unternehmer ihre Öffentlichkeitsarbeit." Dziolak et al., op.cit., p.138.

Several commentators have held that before the formal negotiations take place there are informal initial meetings between trade union and employers' association representatives and that such contacts form an important and integral part of the collective bargaining system.\(^{121}\)

However, as far as the West German chemical industry is concerned such initial meetings between employers' representatives and union officials are certainly not institutionalised. Before the 1971 bargaining round a number of such meetings did occur in order to discuss the employers' proposals of a basic way to regulate relationships between the two organisations.\(^{122}\) The Chemical Workers' Union did not accept these proposals but did state at a second meeting with the employers that in principle they were prepared to hold central discussions on specific issues but that they rejected an institutionalisation of such meetings.\(^{123}\)

Since this time there has been scant evidence of the occurrence of such initial meetings in the chemical industry.\(^{124}\) One reason for the general lack of such meetings in the chemical industry may well be found within the collective bargaining guidelines of the Chemical Workers' Union. These guidelines provide the Vertrauensleute with considerable

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121. For example, G. Himmelmann, op.cit., p.124ff and H. Weitbrecht, op.cit., p.143f. See also Footnote 105 above.

122. One of the major aims of this "sozialpolitisches Grundsatzprogramm" was an increased centralisation of bargaining. Dzielak et al., op.cit., p.135.

123. Ibid., p.136f.

124. Not a single respondent mentioned such meetings when asked to describe the bargaining system and one respondent firmly denied that such meetings occur in the chemical industry. Interview FTO 5, Feb.'78. On the other hand, another respondent stated that such initial meetings did occur in negotiations covering the rubber industry in order to discuss the application and detailed operation of a "local agreements clause" in the collective agreement. Interview FTO 6, Aug.'77.
consultation rights and it is possible that meetings between union officials and employers' representatives either centrally or regional might interfere with these consultation rights.\(^{(125)}\)

An example of agreement being reached centrally without proper use of the consultation procedures does exist. In 1977 an agreement on the provision of jobs for unqualified school leavers\(^{(126)}\) was signed by the union executive without consulting the lower echelons of the organisation. This resulted in considerable annoyance in the union, not about the content, but about the bargaining procedure.\(^{(127)}\)

Naturally, certain contacts between the two organisations are unavoidable since they are necessary in order to arrange the dates of the formal negotiations, for example. Apparently such arrangements are usually made by telephone, a common form of contact between the two bargaining parties.\(^{(128)}\) It is also possible that the coming bargaining round might be discussed should proponents of each side meet, which they do quite regularly either in the course of their jobs - for example at a labour court hearing - or socially.\(^{(129)}\) Quite what contribution such discussions might make to the clarification of questions remains uncertain, however.

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125. This opinion was expressed in Interview FTO 5, Feb.'78.
127. Interview FTO 5, Feb.'78.
128. Interviews FTO 6, Aug.'77; FTO 11, Sep.'77 and FTO 5, Feb.'78.
129. Interview FTO 10, Sep.'77.
The first phase of regional wage negotiations in the West German chemical industry might be termed as a statistical confrontation. In other words the first phase consists of the presentation of arguments for and against wage increases based upon a whole battery of statistics prepared prior to the meeting by the respective organisations.

The length of this phase in the chemical industry depends on the position of the region within the order of bargaining. In the case of Nordrhein, for example, which is one of the first regions to negotiate, a whole day may well be spent on this phase. However, Bremen which is one of the last regions to negotiate managed to complete all three phases of the negotiations in one sitting in 1977. This illustrates not only that important precedents are set by those regions bargaining first but also indicates that the first phase is probably relatively unimportant in all but the regions which bargain first since similar data would be presented in the various regions. As the employers tend to send the same representatives to most of the regions it follows that the significant negotiations are most likely to occur in Nordrhein, Hessen and Rheinland-Pfalz which not only negotiate first but also contain the *statistical Confrontation. Barter for Concessions. The Time of Decision.*

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130. For an example of the usual order of each of the bargaining areas within the negotiation process see Appendix 1 Table 15.

131. For a more general account of this phase of negotiations cf. G. Himmelmann, *op.cit.,* p.136ff.

132. Interview ER 1, Aug.'77.

133. These three phases may be defined as:
1. Statistical Confrontation.
2. Barter for Concessions.
3. The Time of Decision.

134. *cf.* Appendix 1, Table 15.

135. Interviews FTO 6, Aug.'77 and ER 8, Sep.'77.
highest concentration of chemical employment. (136)

Before continuing with an analysis of the first phase of the negotiation process a number of factors are discussed which are applicable not only to this phase but more generally throughout the negotiations. (137)

The chair of all negotiations is held in rotation by the two bargaining parties with each side seated along the bargaining table opposite one another and taking up almost automatically the left and rights wings, as it were. (138) Whilst such considerations might theoretically be of significance should, for example, the sun be shining in the eyes of one side or other, no particular importance was placed on them by respondents.

However, the actual place that the negotiations are held is sometimes important. From the union point of view it is generally useful to negotiate in an industrial area since it creates a more business-like atmosphere. Also if chemical works are located in the vicinity it is possible for the union members to demonstrate outside the building in which the negotiations are taking place, (139) this can put pressure on the employers and have a general influence on the climate of the negot-

136. cf. Chapter 3, Section (ii)d. This is also verified in practice since the agreements reached in the other regions very rarely differ from those in the three main regions.

137. On these factors, see also G. Himmelmann, op. cit., p.131ff.

138. Interview FTO 5, Feb.'78.

139. Demonstrators have occasionally travelled long distances for this purpose, particularly at the later stages of the negotiations. In this way the selection of quiet towns some distance from the actual region which is negotiating in order to promote a climate conducive to compromise has not always been successful of. Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.143.
iations. Furthermore, the co-location of the regional media is more likely to ensure adequate coverage of the negotiations. (140)

The wage round in the chemical industry occurs annually from April to June, and this has a number of consequences for the negotiations. A selection of important industries bargain prior to the chemical industry and such agreements might tend to influence the expectations of chemical workers as to the probable size of wage increases to be agreed in their industry. Agreements in the engineering, iron and steel industries as well as public services are certainly used by the employers in their publicity to suggest a suitable level of agreements. (141) In general there has also been a trend towards stressing the consequences of wage rises to the total economy as opposed to individual industries perhaps as a result of government and "independent" recommendations as to the reasonable level of wage increases. (142)

During the first phase of negotiations the whole of both collective bargaining committees are present together with a variety of experts on the economic situation. (143) The negotiations are, however, generally

140. Interview FTO 5, Feb.'78.
142. Interviews FTO 12, Dep.'77 and ER 10, Sep.'77. The official reports included those of the Konzertierte Aktion, during its existence, and the "committee of experts" (Sachverständigenrat) whose recommendations are usually given extensive publicity. of. Distribution of Jahresgutachten 1977/78 des Sachverständigenrates zur Begutachtung der gesamtwirtschaftlichen Entwicklung, Eine kürzere Fassung, by the Chemical Employers' Association via Infobrief. (12/77). This same publication also emphasises the importance of economic forecasts, e.g. "Wirtschaftsinstitute: Gedämpfte Aussichten", Infobrief 11/78, p.6ff. Other publications also discuss the importance of economic forecasts, of. Wirtschaftswoche, Vol.32, No.1/2, 1978, p.16ff.
143. Interview FTO 5, Feb.'78.
conducted by a relatively small group of senior officials on each side although the presence of lay officers and managers from a variety of companies is useful in order to counter specific agreements introduced by the other side.

First the union attempts to justify the level of the wage demands which have been put to the employers. In order to do this a wide range of statistics on such matters as increased productivity, profits, etc. are introduced. In so doing the union collective bargaining committee will previously agree that various persons should present specific parts of the argument, so that "one person describes the situation in company X, another person describes the situation of a particular group of employees and a third person might say something about local bargaining ...." 

Although the range of speakers is usually pre-planned, other members of the committee are not excluded from speaking should they feel they have a worthwhile contribution to make.

When the union has finished the presentation of its case the employers then defend their position by trying to bring forth statistics which "disprove" the union's arguments. The employers are, however, not

144. In fact, the economic experts generally present much of the union's point of view at this stage. Ibid. and Interview FTO 4, Aug.'77.
145. Interview FTO 6, Aug.'77.
146. Interview ER 1, Aug.'77 and G. Himmelmann, op.cit., p.136ff.
147. Paraphrased translation of the statement in Interview FTO 5, Feb.'78.
148. Interview ER 1, Aug.'77 and G. Himmelmann, op.cit., p.137.
always willing to remain on the defensive. One tactic used by the employers is to stress the poor economic position of specific sectors of the chemical industry, such as synthetic fibres. They then argue that since these sectors are unable to pay the wage increase then the whole association cannot agree to increases which might cause bankruptcy in some of the member firms. During the first phase of negotiations the employers normally refrain from making an offer to the union.

Whilst the two bargaining parties will probably disagree on the majority of the economic data presented the way in which this is done is important in preparing the climate of the negotiations to follow. Himmelmann has stated that the climate of the negotiations is crucial for the achievement of a compromise at a later stage of the negotiations.

One element of the preservation of a good climate in the negotiations, and indeed the maintenance of a working relationship, is apparently the avoidance of personal attack during negotiations. For this reason personal pressure is not normally brought to bear on the other side.

The length of time which the completion of the economic discussion requires is likely to determine whether the committees agree to adjourn

149. Ibid., p.145.
150. Interview FTO 7, Aug.'77. This system is sometimes called the "convoy system" - all ships have to maintain the speed of the slowest ship.
152. Interview ER 6, Aug.'77.
154. Interviews ER 10, Sep.'77 and FTO 5, Feb.'78.
the negotiations until a later date (155) or else to continue with the second phase of the negotiations. The major factor is certainly the position of the region in the bargaining order.

This system of bargaining whereby the economic background to the wage round is discussed in detail before the real negotiations commence seems to be taken for granted by both sides. It might be considered, however, to be a part of the ritual of "bargaining in good faith", the system both parties feel most likely to lead to a satisfactory compromise. (156)

A question may be posed, though, whether the first phase of bargaining fulfils a function beyond a traditional flexing of the muscles. Himmelmann believes that it is impossible to conduct proper negotiations until the subject has been discussed from both viewpoints. (157) The first phase of bargaining certainly provides an opportunity for this.

The first phase also gives each side the chance to attack the other strongly at a time when they are unlikely to cause real damage to the outcome of the negotiations since both sides seem to expect it to occur and enjoy reacting to provocation. (158) Thus the opportunity exists for aggressions and tensions to be released and this probably facilitates the negotiations which follow.

155. Interview ER 1, Aug.'77.
156. cf. G. Himmelmann, op.cit., p.147.
157. Ibid., p.139.
158. Interview FTO 5, Feb.'78.
The first phase of the negotiations may also have the function of aligning members behind their respective organisations through the flood of press releases which normally accompany this stage of the proceedings. (159)

It seems, therefore, that the first phase does fulfil an important purpose within the bargaining round - one of assisting bargaining in good faith by improving the climate of negotiations through the release of tensions and the discussion of the situation in detail. An opportunity is also given to explain this situation to the members and the public in general.

Should there be an adjournment of the negotiations (160) then this provides both organisations with time to report back to their members and to plan tactics for the coming negotiations. (161)

The second phase of bargaining often coincides with the second meeting of the parties, at least in those regions which bargain first and which hence significantly influence the final level of agreements. In the remaining regions the second phase may be entered fairly quickly.

The second round of negotiations may well begin with the employers making their first offer to the union bargainers. (162) At this time

159. For example, of. "Wir fordern!", Op. 4/77, p.3 and "German employers say claims excessive", Chemical Age, 15.4.77, p.1. Another function of such publicity may be to show the members how much the respective associations or unions are doing for their members.

160. Usually for between one and two weeks. of. Appendix 1, Table 15.

161. The union officials go to some lengths to report back to members as fast as possible, if possible by the shift change the next morning. Interviews FTO 6, Aug.'77 and ERV 5, Sep.'77.

162. Interview FTO 5, Feb.'77.
it might be said that the negotiating range has been established with a minimum point of the employers' initial offer and a maximum of the original union demands. (163)

Some other constraints do seem to limit the negotiating range too, such as the official reports and recommended levels of agreement discussed previously together with prior agreements in other industries. In this way the range of agreements has been decreasing generally in recent years, particularly in the recessionary years.

Table 4.2.
Range of Wage Increases. (164)

<table>
<thead>
<tr>
<th>Year</th>
<th>Lowest (%)</th>
<th>Highest (%)</th>
<th>Range (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974</td>
<td>7.5</td>
<td>14.5</td>
<td>7</td>
</tr>
<tr>
<td>1975</td>
<td>4.0</td>
<td>9.0</td>
<td>5</td>
</tr>
<tr>
<td>1976</td>
<td>5.5</td>
<td>6.5</td>
<td>1</td>
</tr>
<tr>
<td>1977</td>
<td>6.0</td>
<td>9.0 (7.5) (a)</td>
<td>3 (1.5)</td>
</tr>
<tr>
<td>1978</td>
<td>4.0</td>
<td>7.5</td>
<td>3.5</td>
</tr>
<tr>
<td>1979(b)</td>
<td>4.0</td>
<td>6.0</td>
<td>2.0</td>
</tr>
</tbody>
</table>

The consideration of primarily macro-economic criteria was rejected generally by both sides in the chemical industry, since it restricted their freedom of action. (165)

164. Sources: Konjunkturberichte,
(a) The 9.0 per cent was a single exception since all other agreements were 7.5 per cent or below.
(b) Up until June, but most agreements made by then.
165. Interviews FTO 12, Sep.'77 and ER 10, Sep.'77. Nevertheless, the desire of the Chemical Workers' Union to better the Engineering Industry agreement - understandable in the light of the chemical industry's economic performance - was regretted by the chemical employers. Ibid.
Despite these restrictions the negotiations are carried out with fervour. In this phase small negotiating committees actually engage in the "barter for concessions". The size of the committees varies but is rarely more than six or eight on either side. (166) The personalities selected for the more detailed negotiations seems to depend somewhat on the circumstances, although on the union side the regional secretary and other very experienced negotiators such as senior works council chairmen would be included. (167)

These union negotiators function as elected delegates of the full collective bargaining committee to which they must report back and which is the only body empowered to take decisions. (168) This is illustrated by the situation in the second negotiation for Rheinland-Pfalz during the 1977 wage round. The regional secretary demanded that the collective bargaining committee determine a level of increase at which he might accept an offer made by the employers in face to face negotiations. After a split vote the committee decided as a compromise that he could not accept anything below 7.3 per cent. This decision which was taken unusually early in this case (169) was the primary cause of the course taken by Rheinland-Pfalz that year. (170)

On the employers' side the six people might be "the president of the

166. Interviews ER 3, FTO 7 and ER 6, all Aug.'77.
167. Interview FTO 5, Feb.'78.
168. Ibid. Reporting back usually occurs during breaks in negotiations which also provide an opportunity to reappraise the situation.
169. There was no third meeting between parties as is often the case. Such decisions are basically illustrative of the third phase of negotiations which is described below.
employers' association, the director-general, an adviser on economics and statistics and three personnel directors picked according to the selection of union negotiators ... These persons, no matter how senior, are not able to decide on the level of concessions to be made, this right remains the sole preserve of the Co-ordination Committee which would also be present should it be likely that a critical decision need be taken.

During this stage of the proceedings the aim is to force the opposition to make a concession and then to bring agreement nearer through making a counter-concession. Once concessions are being made a bartering system develops with each side approaching the other's position. This system has been called one of "alternating moves".

Various tactics are used to put pressure on the other side. One of these is to threaten to break off negotiations and move to the next stage of procedure, the joint conciliation meeting. Both sides may use this tactic, or even threaten to move swiftly towards a dispute situation, either a strike or a lockout. However, in the later case such threats are most likely to simply be part of the "show" of negotiations since there have been very few disputes in the chemical industry.

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171. Translation of statement in Interview ER 4, Sep.'77.
172. See the discussion above.
173. Interview FTO 5, Feb.'78. Apparently the easier points are often dealt with first since less principles are concerned. G. Himmelmann, op.cit., p.152.
174. Walton and McKersie, op.cit., p.88. Such a system does not mean that for every 1 per cent concession on one side a corresponding 1 per cent concession is made by the other side.
175. As in the Rheinland-Pfalz example described above. Joint conciliation is discussed below.
176. The frequency of disputes in the chemical industry is discussed below.
Indirect pressure can be brought to bear on the negotiators. Sometimes overtime bans are arranged by works councillors or else short demonstration strikes or protest marches are held. Although it would also be possible for the Chemical Workers' Union to ballot their members at any stage of the proceedings, there are no examples of it occurring unless it is a formal strike ballot.

Employers, on the other hand, sometimes use the threat of the necessity to introduce redundancies should the union achieve their wage demands, and since there is a great fear of unemployment, particularly in times of economic recession, this can be effective.

The second phase of negotiations is really only significant in the three regions Nordrhein, Hessen and Rheinland-Pfalz since it serves to narrow down the range in which the agreement will subsequently lie. Agreement in one of these regions fulfills a similar function for the remaining regions.

In the three large regions this phase often lasts for a long time with negotiations traditionally lasting until the early hours of the next morning. This is perhaps in order to tire the other side and so induce concessions which might not be made under other circumstances.

178. Until a recent decision by the Federal Labour Court such actions were considered illegal. Provided they are strictly limited in duration and in support of a collective agreement this is now no longer the case. cf. O. Jacobi, W. Müller-Jentsch and E. Schmidt (eds.), Gewerkschaftspolitik in der Krise, Britisches Gewerkschaftsjahrbuch 1977/78, Berlin, 1978, p.210 and AZ: 1 ARZ 607/75.
179. G. Himmelmann, op.cit., p.159.
181. Interview FTO 5, Feb.'78.
A desire to try to complete the negotiations in this sitting may also be instrumental in causing long meetings. (182) Another reason for such long negotiations might be the need to demonstrate the stance that the two organisations and their representatives are taking on behalf of the membership for the length and difficulty of the negotiations is often stressed in handbills. (183)

The second phase of negotiations seems to be a part of the "custom and practise" of bargaining - the one where the two sides approach one another. Although this stage occasionally leads to be breakdown of negotiations, this is rare.

The third phase of negotiations might be termed the time of decision and it may be reached either on the first, second or third meeting, depending on the position of the region in the wage round, or the tactical situation, amongst other things. At this stage the union must decide whether to accept the employers' offer and the employers must decide if they are going to accede to the union demands or else to break off negotiations and move to the next stage of procedure, joint conciliation.

By this juncture negotiations are carried out by very small groups of bargainers on each side, generally between one and three in size. Finally it is quite possible that only two people will actually be negotiating. (184) The aim of reducing the numbers is to allow more

184. Interviews ER 1 and ER 6, both Aug.'77. Also cf. Projektgruppe Gewerkschaftsforschung, Vol.1, 1979, op.cit., p.133.
efficient bargaining to be conducted. Although, given the actual location of the powers of decision, both sides will have to refer back before finally settling the issues, the negotiators can perhaps say things which might be difficult to say in the presence of colleagues.\(^{(185)}\)

By the time this critical phase of the negotiations is reached when the last points are being covered and the final 0.1\% being argued over, it is also generally late at night.\(^{(186)}\) On the union side the collective bargaining committee must decide whether the members would be prepared to strike for a potential gain which is quite small.\(^{(187)}\) At the same time, the employers must judge whether the gains they would achieve by enforcing a lower wage deal are worth the costs of a strike.\(^{(188)}\) Such evaluations should primarily determine the course chosen.\(^{(189)}\)

If there is dissent either within the union collective bargaining committee or the employers' Co-ordination Committee then a vote is taken.\(^{(190)}\) For example, during the 1977 wage round the Hessen collective bargaining committee decided to accept the employers offer of 7\% by a majority of 27 to 6.\(^{(191)}\)

185. Interview ER 3, Aug.'77.
187. The answer to this question is generally negative. Should the union actually decide that a strike is necessary then it would be better to pick an issue of principle as has recently been done in the German printing and steel industries.
189. Interview FTO 5, Feb.'78.
190. Interview ER 8, Sep.'77.
Due to the procedural arrangements in the German chemical industry, a failure to agree in the negotiations leads not to a strike or lockout but to joint conciliation. Whilst this does lighten the responsibility carried by the committees, they must nevertheless weigh up the various factors very carefully for once it goes beyond open negotiations decisions can be taken, over which they have little direct control. This is especially true as far as the union is concerned.

One trade union respondent described this decision process as a matter of balancing a number of interests. Examples of these are the potential gain, the achievable gain and the penalties likely to arise as a result of a poor settlement. (192)

It is probable that at the latter stages of the bargaining process, and particularly in face to face negotiations, the personalities of the individuals involved will have a significant influence on the outcome. The ability of all concerned to partake in a co-operative form of bargaining and the degree of trust between the various negotiators is especially likely to be important.

Even at this stage in the proceedings there seems to be a certain show-effect in the negotiations which must appear tortuous and difficult to the members. Although the employers deny that they are bound by such considerations (193) they also stress the length and difficulty of the negotiations in their press releases. (194)

192. Interview FTO 5, Feb.'78. One consequence of poor settlements might be that members of the collective bargaining committee are not re-elected. For a further consideration of this subject cf. G. Himmelmann, op.cit., p.166ff.

193. Interview ER 3, Aug.'77.

Another factor which can be important in influencing whether the parties come to an agreement is the tactical situation in respect of the other regions. It may be necessary for either side to delay a decision or to try to force one since it could have an effect on the situation in the remaining regions.\(^{(195)}\)

Failure to delay agreement by moving to the next stage of procedure after the usual cooling-off period could cause problems for other regions which are, for example, already committed to conciliation. This was the case in 1977 when Hessen took the wind from the sails of Rheinland-Pfalz's attempt to gain a higher wage increase than the minimum specified in the union's co-ordination guidelines.\(^{(196)}\)

The system of negotiations in the West German chemical industry is highly formalised. Although agreement is often reached during the process which has been described above, in regional wage rounds it is usual for one of the first three regions at least to go beyond this to the next stage of procedure, joint conciliation.

b. Joint conciliation - a continuation of bargaining.\(^{(197)}\)

Arbitration has a long tradition in Germany\(^{(198)}\) and this historical development is relevant today to attitudes concerning arbitration and

\(^{195}\) of. Ibid., p.30.


\(^{197}\) Generally the English translation of Schlichtung is "arbitration", but it will be seen that the system in the chemical industry approached "joint conciliation" much more closely.

\(^{198}\) For a full consideration of this rather complicated development, see H. Raupach, Die Schlichtung von kollektiven Arbeitsstreitigkeiten und ihre Probleme unter besonderer Berücksichtigung der deutschen Entwicklung, Berlin, 1964, p.44ff.
also to the form of arbitration. The economic, social and political climate during the Weimar Republic enhanced the development of arbitration in a compulsory form. The arbitration regulations of 1923 (199) together with a variety of amendments (200) enabled the government to regulate wages and the conditions of employment.

As a result of this state regulation the two bargaining parties employers (associations) and trade unions, were not able to engage in free collective bargaining. Since the Second World War both trade unions and employers have been unified in their rejection of state arbitration for fear that they might once more lose their bargaining autonomy.

In the absence of state arbitration the Federal Labour Court has limited the freedom of the parties to engage in industrial action in a number of ways. (202) One of the principles decided upon by the Federal Labour Court is that industrial action (203) may only be initiated after all possible means to bring about agreement have been attempted. This is commonly known as ultima ratio. (204)

199. Verordnung über das Schlichtungswesen, RGBI, IS.1043.
200. e.g. Erste (RGBI. 1931 S.1) und Zweite (RGBI. 1931 S.521) Verordnung über die Beilegung von Schlichtungsgemeinschaften öffentlichen Interesses, as well as Vierte Verordnung des Reichspräsidenten zur Sicherung von Wirtschaft und Finanzen und zum Schutze des inneren Friedens, (RGBI, 1931 S.699).
201. An example of this unified approach can be found in the Hattenheim agreement between the EMA and DGB of January 1950, together with the communique issued at the same time. cf. H. Raupach, op.cit., p.76f.
203. In this context industrial action is also understood to include such measures as strike ballots. Ibid., p.71.
204. Ibid., p.127 and BAG AP Nr.43 zu Art.9 GG Arbeitskampf, Bl.6R.
According to Wiedemann and Strumpf this means that all collective bargaining parties must negotiate an arbitration agreement if they intend to engage in industrial action.\(^{(205)}\) In addition, even if this agreement subsequently permits the non-use of arbitration once negotiations have broken down, this clause is irrelevant if the parties wish to engage in industrial action. In other words, it was believed that before an industrial dispute could legally take place, arbitration must take place.\(^{(206)}\) However, in 1978 there was a strike in the steel industry, an industry which has no formal arbitration agreement. No legal action was contemplated against the Metalworkers' Union, however, since there were extensive attempts to mediate in this dispute. Respondents generally believed that this mediation (by politicians) had taken the place of formal arbitration.\(^{(207)}\)

For the duration of arbitration or joint conciliation proceedings a peace obligation is in operation on both parties, as a result of the principle of *ultima ratio* and also because it is generally considered by the parties to the arbitration agreement to be the last chance to avoid a dispute.\(^{(208)}\)

In addition to autonomous arbitration or conciliation agreed between the unions and employers certain Federal States in West Germany do

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206. This is known as a *Schlichtungszwang* which can first be traced to the arbitration regulation of 1920. \(\text{cf. H. Raupach, op.cit.} \) p.50.

207. \(\text{e.g. Interviews ER 1 and FTO 21, both Nov.'78.}\)

208. In this way it is specifically incorporated into the current joint conciliation agreement for the chemical industry. \(\text{cf. Schlichtungsregelung für die chemische Industrie, Mainz, 29.1.76, Para.8.}\)
have official arbitration services which they can make available to parties in a dispute.\(^{209}\) However, these State arbitration services have never been used in the chemical industry.\(^{210}\)

The reason for the chemical industry not requiring external arbitration services may be found in the strength and successful application of their own internal provisions. The chemical industry was the first major industry to sign an arbitration agreement after the Second World War. In 1953 a procedural agreement was made as a part of the general agreement on conditions of employment (\textit{Manteltarifvertrag})\(^{211}\). Later a separate agreement was reached\(^{212}\) although the provisions of conciliation agreements until 1976 seem to have remained similar. Until then conciliation took place at two levels for all issues which were negotiated regionally.\(^{213}\) The previous conciliation procedure was protracted having five weeks of cooling-off period between the breakdown of negotiations and the national conciliation conference. Decisions were very rarely achieved at the regional conciliation conference since agreement had to be unanimous.\(^{214}\) Dissatisfaction grew

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\(^{209}\) These States include Nordrhein-Westfalen and Rheinland-Pfalz, Interviews ER 1, FTO 7 and FTO 22, all Nov.'78.

\(^{210}\) Interviews FTO 12, Sep.'77 and ER 8, Nov.'78.

\(^{211}\) H. Raupach, \textit{op.cit.}, p.83.

\(^{212}\) It is uncertain when this occurred for the first time. By 1971 a separate agreement certainly existed. cf. \textit{Schlichtungsvereinbarung für die chemische Industrie vom 13.1.1971}.

\(^{213}\) For details of this type of agreement cf. \textit{Ibid} and \textit{Chemietarifrunde 1971}, \textit{op.cit.}, p.8ff, also Minutes of conciliation meetings covering \textit{Tarifgebiet Hamburg}, 1970, \textit{Landesschlichtung (20.5.1970)} and \textit{Bundesschlichtung (4/5.6.70)}.

\(^{214}\) For a counter-example, however, Rheinland-Pfalz reached agreement during the 1971 wage round in the regional conciliation conference. This lack of union solidarity in the face of imminent industrial action elsewhere in the chemical industry weakened the union position. cf. Dzielak \textit{et al.}, \textit{op.cit.}, p.394.
on the union side with the length of time they were required to wait before starting industrial action since it was difficult to maintain militancy amongst their members during such a long period of time. \(^{(215)}\)

At its National Conference in 1972 the Chemical Workers' Union voted to terminate the current agreement on the first possible occasion and to negotiate a new conciliation procedure which only involved a single level. \(^{(216)}\) In 1975 the previous agreement was terminated and a new one was negotiated \(^{(217)}\) which came into effect on 1st January 1976. The new conciliation procedure may be represented systematically as follows:

\[\text{215. This experience was made especially during the 1971 strike. Interview FTO 22, Nov.'78.}\]

\[\text{216. Protokoll 1972, op.cit., p.457ff and Anhang, p.130ff.}\]

\[\text{217. For further discussion of these negotiations which were carried out nationally, see below. This procedure is identical for both regional and national issues, although the persons involved in conciliation do vary.}\]
CONCILIATION PROCEDURE IN THE WEST GERMAN CHEMICAL INDUSTRY
(IN FORCE SINCE 1.1.1976) (218)

**Figure 4.1.**

BREAK DOWN IN NEGOTIATIONS

REFUSAL TO NEGOTIATE

REQUEST FOR CONCILIATION (ONE PARTY)

CONCILIATION BOARD
3 TRADE UNIONISTS
3 EMPLOYERS' ASSOCIATION REPRESENTATIVES
CHAIRMAN FROM ABOVE

REGIONAL OR NATIONAL DEPENDING ON

PROBLEM

IN ROTATION FROM EITHER SIDE, NO
ADDITIONAL VOTING RIGHT

3 (MAX) REPS. FROM EITHER SIDE

ADJOURNED

NO LIMIT

FURTHER CONCILIATION

REQUEST FOR FURTHER NEGOTIATIONS (BOTH)

x, x = 0→n

BINDING

AGREEMENT

FAIL

7 DAYS

CONCILIATION

BINDING

AGREEMENT

FAIL

POSSIBLE INDUSTRIAL ACTION

POSSIBLE INDUSTRIAL ACTION

7 DAYS

218 Source: Schlichtungsregelung 1976, op. cit.
In the recent agreement there are two routes which theoretically might lead to a conciliation board. (Para.1.II). These are a breakdown in negotiations as has been described previously or a refusal to negotiate either about an agreement which has been terminated or about a new agreement. However, this second clause was only introduced during the last revision of the procedure and there are no known cases of it being applied. It is simply a safeguard to prevent either side from refusing to negotiate.

The agreement also states that the conciliation procedure is only activated when one or both of the parties request it. (Para.1.II). As has been noted above, should either side subsequently intend to engage in industrial action then this choice becomes non-existent. In all but a very small number of cases, the conciliation procedure has been used. Such cases where this has not happened are where the issue under negotiation has become obsolete during the course of the negotiations or if the issue has proved too complicated to negotiate satisfactorily at this level.

After the request for conciliation has been made a cooling-off period of twenty-one days may occur before the board meets (Para.5.II). The actual length of this period varies according to the tactical situation.

219. Interview ER 12, Feb. '78.

220. Such as where agreement in another region removes the controversial nature of the issue, or where legislation overtakes the negotiations. Interview ER 8, Nov. '78.

221. An example of this was regional regulation of the grades of payment for particular types of jobs. Interviews ER 13, Feb. '78 and ER 1, Nov. '78.
but generally the major part of the cooling-off period is used.\(^{222}\)

Sometimes the cooling-off period is extended by mutual agreement either as a result of tactical considerations or because of difficulties in agreeing on a date which suits everybody. This has become particularly problematic since the employers' representatives are often involved in negotiations in a number of regions and because the union officials also have more appointments arising from co-determination than previously.\(^{223}\) The revision of the conciliation agreement in 1976 has reduced the time before it is possible to call industrial action by two weeks, and from this point of view can be seen as an improvement as far as the Chemical Workers' Union is concerned.

The conciliation board consists of three members from each party in dispute. (Para. 4.i). One of these three members is the representative of the region in dispute and the remaining members generally come from elsewhere within the organisation;\(^{224}\) one of these two representatives will certainly be an important personage nationally within the corresponding organisations.\(^{225}\) On the union side this is invariably the National Officer for Collective Bargaining\(^{226}\) whilst the employers are normally represented nationally by the Director-General of the Arbeitsring.\(^{227}\)

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222. Interviews ER 12, FTO 16 and FTO 5, all Feb.'78.
223. Interviews ER 8 and FTO 7, both Nov.'78. This time is not only used as a cooling-off period but can also be used to mobilise support in the plants. Interview FTO 23, Oct.'78.
224. Very occasionally two union representatives come from the region in dispute. Interview ER 8, Nov.'78.
225. Interviews ER 11, Feb.'78, FTO 23, Oct.'78 and ER 7, Nov.'78.
226. Hauptvorstandsmitglied für das Tarifwesen.
227. Interviews FTO 17, Feb.'78 and ER 1, Nov.'78.
It seems that the actual composition of the conciliation board is determined centrally in each organisation (228) although there is some contradictory evidence on this as far as the union is concerned. Some respondents stated that the union representatives on the conciliation board were determined by the collective bargaining committee. (229) Due to the importance of the composition of the conciliation board, and to the conciliation proceedings in general, this seems unlikely. Indeed, a central decision would reflect the overall responsibility for collective bargaining borne by the union's national executive committee.

On the union side the remaining members of the board are often the regional secretary of the region in dispute, if he is not putting the region's case to the board, together with a lay officer of some standing. (231) The employers are further represented by senior personnel managers who often hold a lay office within the employers' associations.

The importance of the composition of the conciliation board for the final agreement is illustrated by the 1977 wage round. In the Rheinland-Pfalz conciliation meeting representatives of the Arbeitsring ensured that there was less chance of an agreement over 7 per cent being achieved by the union than there had been in open negotiations due to the influence of a representative of the central employers' association (233).

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228. Interviews FTO 23, Oct.'78, also ERV 13, ER 8 both Nov.'78.
229. e.g. Interview FTO 28, Oct.'78. One respondent did suggest that the collective bargaining committees could make recommendations, Interview FTO 22, Nov.'78. Since the conciliators would have to enjoy the confidence of the bargaining committee this is a possible indication of the actual situation.
230. Satzung 77, Para. 13. Most respondents stated that this is where the decision is taken.
231. Interview FTO 23, Oct.'78.
232. Interview ER 7, Nov.'78.
whilst in Nordrhein the union National Officer voted with the employers' representatives and thus brought about agreement in this region. (234)

The chairman of the conciliation board is elected from amongst the six members of the board in every region. The chair is held by each side in rotation at successive meetings. (235) Normally the most senior official of the three on the side with the chair becomes the chairman since he is the most experienced and since his prestige would suffer with the opposition if this did not occur. (236) It follows, therefore, that according to the procedure in the chemical industry there is no neutral chairman or external arbitrator as is often the case in West Germany. (237) As a result of this the chemical procedure is termed joint conciliation as opposed to arbitration.

One reason for not choosing a procedure with a neutral chairman which was given by both employers (238) and trade unionists (239) is that such a regulation would be likely to diminish the sense of responsibility of the two bargaining parties. Since these same parties must subsequently

234. Ibid., p.139f. In Rheinland-Pfalz the National Officer had been unwilling to follow the NEC's recommendations to vote with the employers due to the strength of the feeling amongst the union members. Interview FTO 17, Feb.'78.

235. Interviews FTO 17, Feb.'78 and FTO 28, Oct.'78.

236. Interviews FTO 23, Oct.'78 and ERV 13, ER 1 and ER 7, all Nov.'78.

237. Approximately 46% of a sample of 20 arbitration agreements (16 national, 4 regional) collated by the EDA on 1.6.1968 allowed for a neutral chairman. This includes the metal processing industry agreement which covers around 4.3 million employees. Statistisches Jahrbuch 1979, op.cit., p.161, own calculations.

238. Interviews ER 11 and ER 13, Feb.'78; ER 1 and ER 8, Nov.'78.

239. Interviews FTO 5 and FTO 16, Feb.'78; FTO 28, Oct.'78 and FTO 22, Nov.'78.
put the agreement into operation it is more likely to function as intended if both parties are fully responsible for it and thus committed to its success.

Furthermore, many respondents expressed the opinion that there was no such thing as a "neutral" chairman. Other industries had experienced problems in this area, and such external regulation was likely to lead to the type of developments that occurred during Weimar.\(^{240}\) Indeed, there were great similarities between the rejection of external involvement in conciliation and between opinions expressed on state arbitration.\(^{241}\)

In addition to these reasons, a number of respondents stressed, in the words of one regional secretary that:

"Someone from outside the industry can never understand the situation in the chemical industry." \(^{242}\)

Problems might arise especially if the external arbitrator possessed an insufficient technical understanding of the industry to make a viable award if the subject matter was beyond a simple percentage wage increase. The lack of a neutral chairman to the conciliation board is to a certain extent, therefore, a result of the high degree of technology in the chemical industry.

The role of the chairman is to regulate the meeting of the conciliation

\(^{240}\) Interviews FTO 28 and FTO 23, Oct.'78; ER 6, ERV 9, FTO 7 and FTO 21, all Nov.'78. One consequence of the Weimar system was the parties often chose to avoid their responsibilities. H. Raupach, op.cit., p.67.

\(^{241}\) e.g. Interview FTO 22, Nov.'78.

\(^{242}\) Translation of statement made in Interview FTO 28, Oct.'78.
board, to keep the discussion moving and to attempt to bring about agreement. Beyond this the chairman must also ensure that voting procedures are correct and that minutes are taken, in so far as this occurs. The chairman will also invariably be the spokesman for his side whilst the deputy chairman from the other side is generally that side's spokesman. (243)

Sometimes the chairman will control the proceedings very strictly and sometimes he will not. This depends somewhat on the personalities involved and on the general climate of the prior negotiations. (244)

Although the conciliation is often fairly informal in nature sometimes such a strict control is exercised that the chairman insists on visits to the toilet occurring in pairs - one from each side - to prevent either side from taking up contacts with their own organisation. (245)

It is possible for up to three representatives to present the case for each of the two parties to the conciliation board. (Para. 6.1) and in the most important cases it is likely that full use will be made of this right by both sides. (246) The representatives of the particular union region involved in the dispute are usually the regional secretary for this region, provided he is not a member of the conciliation board, together with two delegates from the respective collective bargaining

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243. Interviews FTO 23 and 28, Oct. '78; ER 7, ER 8 and FTO 22, Nov. '78.

244. Interviews BRV 13 and ER 8, Nov. '78.

245. There are regional differences in practice as well. Interviews FTO 23, Oct. '78 and FTO 22, Nov. '78. The more usual procedure is considered in some detail below.

committee. (247) The employers generally use the Director-General of the regional employers' association and two senior personnel managers from their bargaining committee. (248)

The representatives of the parties are very important if the conciliation board refers the dispute back to the parties for further negotiations, since they then carry out these negotiations. (249) Although this has happened it is rather unusual and very rarely do such negotiations actually lead to an agreement. (250)

When the conciliation board initially meets it must first decide whether it is competent to deal with the issue and once this has been established, the representatives of the parties are invited to put their respective cases to the board. (251) Both sides are present simultaneously and put forward their cases concisely since the conciliators are quite aware what issues are involved. (252) Sometimes the board puts questions to the representatives of the parties in order to clarify certain points; after this the board requests that the party representatives withdraw and leave them to their deliberations. It is possible, however, for the board to call the parties before it again should it be felt necessary. (253)

247. Interviews FTO 17, Feb.'78; FTO 28, FTO 23, Oct.'78 and FTO 22, Nov.'78.
248. Interviews ER 11, ER 13, Feb.'78; ER 8, Nov.'78.
249. For such a possibility in the procedure, see Figure 4.1. Interviews ER 7, Nov.'78 and FTO 23, Oct.'78.
250. Interviews FTO 28, Oct.'78 and ER 8, Nov.'78. In the case of these negotiations breaking down, the conciliation board must reconvene within 7 days (Para.6.7) although it would usually do so the same day, should time permit. cf. Niederschrift über die Sitzung der Schlichtungsstelle der chemischen Industrie Nordrhein-Westfalen vom 10. Mai und vom 14. Mai 1977, reprinted in Chemie-tarifrunde 1977, op.cit., p.34ff.
251. Interviews ER 12, ER 13 and FTO 17, all Feb.'78.
252. This is one of the considerable advantages of such a system of joint internal conciliation.
253. Interviews FTO 23, Oct.'78; ER 7, ER 8, BRV 9, all Nov.'78.
Once on its own the conciliation board attempts to find a solution to the problems at hand. Whilst spokesmen generally exist on each side, all members of the board can make proposals about how to solve the dispute. Such proposals can also be made collectively by either side.\(^{254}\)

Should a particular formula be formally proposed as a potential solution then a vote must be taken on this proposal.\(^{255}\) This vote can either be secret or open in nature according to the wishes of the board although the agreement specifies a secret ballot. (Para.7.11). There seem to be regional differences in the types of ballot used which probably reflect the personalities concerned. Another factor which can be important is the likelihood of a majority decision arising. Where this seems possible then a secret ballot will most certainly be used in order to give anonymity to the person who votes with the opposition.\(^{256}\)

Should at any stage a majority be found for any formal proposals then the procedure is ended and both sides are bound to an agreement of the type specified in the proposal. (Para.7.11).\(^{257}\)

Quite often such formal provisions are not required.\(^{258}\) Usually the problem is discussed thoroughly from all aspects and potential solutions

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254. Interviews FTO 17, Feb.'78; ER 1, ER 8, Nov.'78.
255. Interviews FTO 17, Feb.'78; ER 1 and ER 14, Nov.'78. Proposals of this sort are generally rare unless the climate is extremely frosty. Interview BRV 10, Nov.'78.
256. Interviews FTO 23, Oct.'78; BRV 13, ER 8 and FTO 22 all Nov.'78. In the long term the secrecy cannot be maintained, however.
257. On at least one occasion a formal proposal has produced a surprise agreement due to insufficient discussion amongst the individual parties causing unexpected voting behaviour. Interview FTO 7, Nov.'78.
258. Proposals are sometimes made, however, although it is known that they are bound to fail, in order that they will be entered into the minutes. Interview ER 8, Nov.'78. cf. Niederschrift ... Rheinland-Pfalz ... 9.5.1977, op.cit.
are voiced in the course of the discussion. (259) Normally an attempt is made to sound out the feelings of the other side on particular features of a potential agreement by "thinking aloud ... and if there is no response it's as if nothing had been said ... This develops from personal relationships between members of the board." (260)

Another method used to try to bring about agreement in the conciliation meeting is similar to that used in the open negotiations. Particularly at the latter stages of the sitting private discussions are held between one representative from each side, normally the two spokesmen. (261) During such discussions it is possible for each representative to really lay his cards on the table and talk very openly. (262) In this way the final points of the agreement are often ironed out. This type of meeting can occur after breaks in the conciliation sitting, perhaps on the balcony or in a corner of the room. (263)

When the conciliation board proceeds in this way which, in itself, is an indication that the climate between the parties is not particularly cold, agreement is generally achieved without formal proposals being made. The conciliation board comes simply to the conclusion that there is no longer dissent between the two sides. Under such circumstances

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259. The starting point of these discussions is generally the point reached in open negotiations. Interview ER 7, Nov.'78.
260. Translation of a statement by a national executive officer of the Chemical Workers' Union during Interview FTO 17, Feb.'78. Other interviews revealed that this was usual.
261. Interviews FTO 28, Oct.'78 and ER 8, Nov.'78.
262. Such senior officials naturally know one another well and in the chemical industry seemed to have a good, mutually respectful, working relationship.
263. Interviews FTO 7, ERV 8 and FTO 22, all Nov.'78.
the ballot may just consist of nodding heads or raising hands when
the agreement is proposed. (264)

Separate discussions and meetings amongst the two parties are apparently
a feature of conciliation boards in the chemical industry. Before the
conciliation board sits the conciliators would certainly discuss the
situation in considerable detail with the collective bargaining or co-
ordination committees. During such meetings the feelings of the committee
and the climate on the shopfloor are reviewed together with the basic
economic facts. In this way the conciliators gain an indication of
where a suitable agreement might lie and which tactics to adopt. (265)
Another aim of these meetings is to ensure a feeling of trust between
the conciliators and the bargaining committees. This is necessary if
the conciliation is to succeed in practice since the committee must
believe that the conciliators achieved the best possible agreement. (266)

Despite the lengthy preliminary discussions it is possible that the
conciliation board should desire to report back to the committees or to
clarify certain points of a potential agreement. In such circumstances
the conciliation board may agree to hold additional discussions. (267)

264. Interviews ER 1, ER 14, FTO 7 and BRV 13, Nov. '78.
265. Interviews FTO 17, Feb. '78; FTO 28, Oct. '78 and FTO 22, Nov. '78.
It seems likely that such meetings would be more important to
the union due to the higher degree of co-ordination on the em-
ployers' side. Also cf. Letter from the regional secretary
(Engelmohr) of the Nordmark-Berlin region of the Chemical
Workers' Union to all members of the collective bargaining
committee for the Hamburg region of the chemical industry
dated 27.5.1970.
266. Interviews BRV 13 and FTO 22, Nov. '78. This feeling does not
always arise, however, when the agreements are made public.
Interviews FTO 28, Oct. '78 and FTO 7, Nov. '78.
267. Interviews FTO 23, Oct. '78; BRV 13, ER 7 and ER 8, all
Nov. '78.
Once more there are apparently differences in practice between regions in these matters for whilst some respondents stated that such meetings may occur several times during the course of a conciliation sitting, others likened the proceedings to a papal election. Nevertheless, even when the board decides that such meetings should not occur there are occasionally "accidental" meetings in corridors, or communication by "flying telephone".

In especially critical cases, the union national officer responsible for bargaining has telephoned either the General Secretary or the whole full-time NEC in order to discover their opinion on a particular potential agreement. The aim of this would be for the national officer to check whether he should perhaps vote with the employers in order to prevent a particular development which the senior union officials feel unwise. However, such a decision is not simple for the national officer knows he must stand for re-election at the next National Conference. An unpopular decision may well cost him many votes and so he has not always been prepared to accept the advice of the NEC.

Such measures are carried out either to increase the chance of an agreement or to safeguard the position of the conciliators within the organisation. In the past, the conciliation process as portrayed here has

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268. Interviews FTO 23, Oct.'78 and BR V 13, Nov.'78. (both from Niedersachsen).
269. e.g. Interview BR V 10, Nov.'78. (from Rheinland-Pfalz).
270. Interview FTO 7, Nov.'78.
271. Interview FTO 17, Feb.'78.
272. Ibid. For example in the Rheinland-Pfalz conciliation during the 1977 wage round.
generally been successful. On very few occasions has agreement not
been achieved either at the national conciliation meeting under the
old procedure or at the current single-tier conciliation board. (273)

Perhaps one major reason for the success of conciliation in the chemi-
cal industry has been the realisation that should it fail, the peace
obligation ceases and industrial action could result. Since the
Chemical Workers' Union is not very strong in two of the three largest
chemical works in Germany it is likely that it would generally be
prepared to accept a slightly worse agreement than risk losing a
strike. (274) Normally the chemical employers do not want to risk a
strike. (275)

Another reason for the success of conciliation can be found in the
room for manoeuvre between the bargaining parties in the chemical
industry created by the economic situation in the industry. (276) In
addition, open discussion is enhanced as a result of the structure of
the conciliation board, especially the presence of senior representa-
tives from both sides and the relationship between them. In this way
agreement is more likely to be achieved at such a level than in negoti-
ations at a lower level.

273. As far as can be established, agreement has not been achieved
in wage matters on only four occasions in the chemical industry.
Hamburg and Hessen 1970 (cf. GB 69-71, op.cit., p.332ff),
several regions in 1971 (cf. Dzielak et al., op.cit., p.139ff),
Rheinland-Pfalz in 1973 (cf. J. Rauschel, op.cit., p.98) and
Rheinland-Pfalz in 1977 (cf. Projektgruppe Gewerkschaftsforschung,
1978, op.cit., p.139).

274. Interviews FTO 23, Oct.'78 and BRV 9, Nov.'78.

275. Interview ER 8, Nov.'78. Dzielak et al. feel that the em-

276. Interview FTO 7, Nov.'78.
Furthermore, conciliation can be and sometimes has been used as a tactical measure within a wage round.\(^{(277)}\) Not only can time be gained - in order perhaps to allow agreement in another region - but low offers by the employers in the early negotiations could be used to prevent agreement at this stage in the hope that union representatives from other regions or the NEC might be prepared to accept a lower agreement in the conciliation meeting.

This system of joint conciliation may be considered simply to be a slightly different form of negotiation to those which preceded it. As one regional officer summarised:

"From its structure conciliation is often a continuation of bargaining with a smaller number of negotiators. The main reason for this is the absence of a neutral chairman." \(^{(278)}\)

Most respondents were prepared to accept this analysis of conciliation as a continuation of bargaining although certain qualifications were made. Conciliation does have a rather different character to the preceding negotiations, perhaps as a result of the voting system whereby a simple majority of the conciliation board can bring about agreement at any time.\(^{(279)}\) Also, senior officials are involved together with officials from elsewhere within the organisation and such persons are likely to be able to view the issues more dispassionately than officials immediately involved in the dispute.\(^{(280)}\) In this way conciliation may

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277. Interviews FTO 23, FTO 28, Oct.'78; FTO 22, Nov.'78. Apparently this was more frequently the case for regional conciliation under the old procedure and this contributed to a devaluation of this institution. Interviews BRV 9, FTO 7, both Nov.'78.

278. Translation of a statement in Interview FTO 23, Oct.'78.

279. Interviews ER 1 and FTO 7, Nov.'78.

280. Interviews ER 7 and ER 8, Nov.'78.
occur. Nevertheless, the conciliation procedure in the German chemical industry is primarily a continuation of bargaining.

In the past conciliation has played an important role in the collective bargaining system in the chemical industry. The wage bargaining round has often been decided by decisions taken during conciliation, usually in Nordrhein, Hessen or Rheinland-Pfalz, as these regions negotiate first. Conciliation is sometimes of importance beyond this. It enables stronger co-ordination and control to be exercised by the senior officials in the bargaining organisations. Furthermore, since all participants are aware that it is the next step in procedure after the negotiations it can exert an influence over tactics during negotiations.

In recent years, however, conciliation seems to have lost importance, at least as far as wage bargaining is concerned. The reason for this can be found in the introduction of national involvement in wage bargaining. Since, under this system, the negotiations are conducted by people who would typically have been involved in conciliation on regional issues, there has been no need to move to the conciliation stage in order to increase central control.

Most respondents, however, did not notice this trend away from conciliation and believed that conciliation would be likely to retain its

281. Interview ER 1, Nov.'78.
282. Interviews ER 7 and FTO 7, Nov.'78. Some respondents believed that conciliation was too important and that this had led to a devaluation of the negotiations. Interview FTO 22, Nov.'78.
283. There has been no conciliation on wage issues since 1977.
previous importance.\(^{284}\) It was also felt by some that, as a result of the failure of the economy to attain the growth rates it had previously enjoyed, conciliation would become more important.\(^{285}\) Should there be a return to regional wage bargaining under a stagnant economy then it seems quite probable that conciliation will gain in significance as an alternative means of the senior officials exerting extensive influence on the negotiations.

c. Industrial action — the ultimate weapon?

Labour legislation in West Germany makes the use of industrial action including strike ballots illegal until after the end of the peace obligation. In practice the peace obligation usually comes to an end when arbitration, or joint conciliation in the case of the chemical industry, has broken down.\(^{286}\) As a result of the success of the last stage of procedure in chemicals this has only occurred on four occasions on wage matters.\(^{287}\) The discussion here will, therefore, be primarily based on occurrences during the 1971 and 1977 wage round since the other two disputes were very minor.\(^{288}\)

According to principles laid down by the DGB, member unions should hold

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\(^{284}\) Interview FTO 28, Oct.’78, ER 1, ER 7, ER 8, BRV 13, all Nov.’78.

\(^{285}\) Interviews FTO 23, Oct.’78; FTO 7, FTO 22, BRV 9, all Nov.’78.

\(^{286}\) cf. A. Söllner, op.cit., p.81ff.

\(^{287}\) cf. Footnote 272 (Chapter 4) above. Conciliation has failed on other issues but since industrial action has not arisen as a result, the discussion here will be limited to wage matters.

\(^{288}\) The 1970 Hamburg dispute is nevertheless considered briefly below. In 1973 national joint conciliation for Rheinland-Pfalz broke down late at night and a request was made to the NEC to carry out a strike ballot. This request was immediately acceded whereupon the employers made an improved offer which was accepted by the union collective bargaining committee. Subsequently there was considerable criticism of the result on the shop-floor. cf. J. Rauschel, op.cit., p.98.
3*3 - 

a ballot before calling a strike. (289) In 1963 the Chemical Workers' Union revised its rules to allow itself the freedom of choice whether to ballot its members before calling a strike. (290) Paragraph 15 of the Chemical Workers' Union rule book now states that "the NEC can decide whether to hold a ballot ... and whether 75 per cent of those members who voted must be in favour of strike before a strike is called. In such circumstances at least 50 per cent of members entitled to vote must do so." (291)

In 1971 the Chemical Workers' Union called a series of strikes in four regions after the breakdown of the national conciliation boards without first balloting their members. The chemical employers' association for Nordrhein-Westfalen took legal action against the union for the choice of such strike tactics and in order to be awarded damages to cover the costs of the strike. (292)

However, a year later the Labour Court in Dusseldorf decided that it was

290. Chemie-tarifrunde 1971, op.cit., p.29. The Chemical Workers' Union was the first German union to do this and hold a strike under these provisions. Since then, the Printing Workers' Union has held a strike without balloting its members. Interview PTO 18, Apr.'78.
291. Author's translation of "Der Hauptvorstand beschliesst über die ... Durchführung von Urabstimmungen ... Er kann die Durchführung von Streiks davon abhangig machen, dass sich mindestens 75 Prozent der an der Abstimmung beteiligten Mitglieder für den Streik aussprechen. Dabei müssen sich mehr als 50 Prozent der Abstimmungsberechtigten an der Abstimmung beteiligen." Satzung '77, op.cit., p.25. Such provisions are normal for ballots in the DGB, cf. G. Himmelmann, op.cit., p.206f.
possible for a union to hold a strike without balloting its members.\textsuperscript{(293)}

All other complaints in the employers' action were found to be justified, however.\textsuperscript{(294)} As a result of the time that had elapsed since the strike and a subsequent lack of public interest, together with the advantages that both sides were able to draw from the decision, neither side decided to challenge the ruling in the Federal Labour Court.\textsuperscript{(295)}

The use of industrial action without prior consultation of the membership has a number of advantages and disadvantages which were clearly revealed by occurrences in the chemical industry strike in 1971,\textsuperscript{(296)} and the dispute in 1977. One problem with calling strike ballots is that it takes a long time to organise\textsuperscript{(297)} and during this time the employers use every way possible to influence the workers against coming out on strike. Although the union is also engaged in a fight to motivate its members for a strike, the employers' propaganda is more extensive and more professional.\textsuperscript{(298)} Therefore, the absence of a ballot means that industrial action can be called very quickly, without prior warning, and in a way to cause maximum effect.

\begin{itemize}
  \item \textsuperscript{293} Landesarbeitsgericht Düsseldorf, Urteil von 21.8.1972 (7 Ca 1995/71) as published in K. Hernekamp, \textit{op.cit.}, p.67ff. The argument used by the court was that provided a union was basically democratic then it could decide to take decisions in any way considered most appropriate.
  \item \textsuperscript{294} Dzielak et al., \textit{op.cit.}, p.437.
  \item \textsuperscript{295} Ibid., p.436f.
  \item \textsuperscript{296} This discussion is based on information presented by Dzielak et al. and in \textit{Chemie-tarifrunde} 1971. Some direct consideration of these factors may be found in Dzielak et al., \textit{op.cit.}, p.398ff.
  \item \textsuperscript{297} In 1977 the conciliation board for Rheinland-Pfalz broke down on 9th May. The first ballots were not carried out until 23rd May. \textit{Chemie-tarifrunde} 1977, \textit{op.cit.}, p.9ff. Union officials have learnt that this causes problems and know they must reduce this time. Interview FTO 12, Sep. '77.
  \item \textsuperscript{298} \textit{cf. Chemie-tarifrunde} 1977, \textit{op.cit.}, p.40ff and discussion below.
\end{itemize}
On the other hand, this form of industrial action requires a very
disciplined union membership that is prepared to strike at the drop
of a hat. This requirement is not met in the West German chemical
industry where strikes are very rare, salaries high and union member-
ship low, particularly on the larger chemical works. For these reasons,
the tactics were not successful in the chemical industry. Due to the
legalised nature of industrial relations in Germany, the employers were
actually able to turn these tactics to their own advantage by stressing
the "illegal" and undemocratic nature of the action in their public
relations work. (299)

Since 1971, the Chemical Workers' Union has not called a strike without
prior use of the ballot. Apart from the developments in 1973 which
have been described above, the only other call for a strike ballot in
the chemical industry in recent years was 1977 for Rheinland-Pfalz.
Whereas in 1973 the NEC had been able to give permission to hold the
ballot within a couple of hours (300) in 1977 it took them three days. (301)
It must seem that the NEC was trying to win time, perhaps in order to
delay matters for so long that the dispute would blow over.

The structure of the Rheinland-Pfalz region of the chemical industry is
such that it is dominated by the BASF works in Ludwigshafen. (302) The
dispute was concentrated, therefore, around this works and the other

300. J. Rauschel, op.cit., p.98.
302. Around 50,000 (Interview BRV 5, Sep.'77) of the 87,000
chemical employees in this region work for BASF in
Ludwigshafen. Zahlen zur Sozialpolitik, 1979, op.cit.,
p.6.
sites which were selected for inclusion in the strike ballot.\(^{303}\)

Although feelings were apparently running very high amongst the union membership in BASF there was little militancy in the other works. The union needed time to increase the militancy in the remaining sites and this explains the delay necessary before holding the strike ballot.\(^{304}\)

Meanwhile, this time enabled the employers' propaganda machine to start working at full pace. The type of propaganda used by them is considered here in some detail in order to provide an insight into the effect it might have on the workforce.

Both the employers' association and the company engaged in a wide range of public relations activities during the build up towards the ballot and before agreement was achieved. The employers' association concentrated upon providing guidelines for their member companies, press releases and on advertisements in newspapers together with articles in their own publications.\(^{305}\) For example, a guideline was issued to companies as to how to inform their employees that the employers were unilaterally increasing wages and salaries by the same amount as had been agreed in Hessen.\(^{306}\)

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303. These works were selected according to the following criteria: 1. membership density; 2. results of a ballot of Vertrauensleute as a guide to militancy; 3. importance of works in the negotiations. Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.144.

304. This explanation was given by the regional secretary for Rheinland-Pfalz, (Interview FTO 12, Sep.'77). Since it has been reported that he was not particularly in favour of a strike and also wanted to delay matters, the validity of this statement is uncertain. cf. Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.142.


306. Ibid., p.39. This tactic reduces greatly the amount that the union seems to be fighting for, often to an insignificant amount. For 1971. cf. Chemie-tarifrunde 1971, op.cit., p.343ff.
BASF, as a large multinational company has a large public relations department which becomes particularly crucial in a potential dispute situation. (307) Specific elements of the situation which were believed to be likely to lessen the willingness of the workforce to engage in industrial action received considerable coverage within the propaganda. Amongst other things, great stress was given to the agreements within other regions of the chemical industry, to the high level of pay and welfare benefits provided by BASF which would be endangered if the company were to suffer the severe economic damage which might result from strike action. Extremists were also stated to be certain to exploit a strike situation for their own ends. (308) Emphasis was also laid upon the loss of old age, sickness and unemployment benefits if the strike were to last for a long period of time, as well as the effects of a strike on the benefits of strikers who become sick or for employees going on holiday, since the summer holidays were approaching. (309)

This information was distributed in the form of handbills. In addition a "personal" letter was sent by the chairman of the BASF management board to all employees. This letter was carefully composed to weaken the willingness of employees to strike by stressing the economic consequences of such action. (310)

307. Interview CM 4, Sep.'77.
309. For a full range of the consequences of strike action cf. Arbeits- und sozialversicherungsrechtliche Hinweise für am Streik beteiligte Mitarbeiter, in Ibid., p.43ff.
310. cf. Letter from Prof. Dr. Matthias Seefelder to "Liebe Mitarbeiterinnen und Mitarbeiter der Anilin" dated 16.05.77 and reprinted in Ibid., p.48f.
Foreign workers and apprentices were also singled out for particular attention to "clarify" the situation for the former group and to "prove" to the latter and their parents that it is illegal for apprentices to strike. These communications aim to further increase the insecurity of these groups of employees, by stressing for example the high level of youth unemployment.

BASF also directed their propaganda beyond the immediate workforce by using a series of large advertisements in the local newspapers in order to publicise their point of view. In this way indirect pressure could be put on the employees by influencing the opinions of family and friends in the locality.

During the 1977 dispute in Rheinland-Pfalz the press considered the potential strike situation highly newsworthy and this increased the effect of the employers' propaganda since, as might be expected, the union position was severely criticised and the potential effects of the strike were reported to be catastrophic. On the other hand the employers received a great deal of support from the press. The degree of satisfaction felt by the employers with this situation is reflected in the following statement made by a senior official of the Rheinland-Pfalz chemical employers' association:

"You will see if you look at the documentation of the 1977 wage round published by the Arbeitsring that the press does not portray the situation if any way subjectively, in any way at all. The reporting is purely objective." (315)

313. Ibid., p.56ff.
314. cf. Ibid., p.120ff.
315. Translation of statement made during Interview RR 10, Sep.'77.
This wide-spread barrage of propaganda issued by the employers' association and company management can be expected to have had some influence on the willingness of the workforce to strike. This effect probably increased with time as insecurity in the strength of their position grew as a result of the hesitant attitude of the union leadership towards the strike. (316)

Chemical Workers' Union policy on strike ballots has varied during the last decade and the tactic of not calling for a ballot as during the 1971 strike was discussed previously. In 1977, however, the NEC agreed to carry out a strike ballot in Rheinland-Pfalz. Prior to the joint conciliation meeting a preliminary ballot of Vertrauensleute had been carried out, indicating where particular support for a strike lay. Feelings were found to be especially high at BASF, and this initial ballot was used in deciding which works to include in the actual strike ballot. (317)

The strike ballot was carried out in 20 (318) chemical works over the period 23rd-25th May - eleven days after the NEC had given permission. This delay was required since it took time to organise the ballot especially at BASF which is very large and complex and which refused

317. Ibid., p.144. This initial ballot might be considered to be a part of internal preparations for the strike ballot and therefore not subject to the peace obligation. The regional secretary called publically for such preparations well before the joint conciliation meeting was held. cf. "Chemierunde zugespitzt", Gp, 5/1977, p.3.
318. This is the union figure (cf. "Hauptvorstand erteilt Streikgenehmigung", pressedienst, VIII(XXII)/23, 27.5.1977). According to the employers the ballot was carried out in 22 works (Chemie-tarifrunde 1977, op.cit., p.14); a research report accepted the union figure. (Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.145).
permission for the union to carry out the ballot at the place of work.\textsuperscript{(319)} Since BASF also held contracts with all suitable halls in the immediate area of the site, the union was forced to put up tents in which to carry out the ballot. Time was also needed to motivate the union members outside BASF.\textsuperscript{(320)} At the same time, this delay could have been critical for the union since the employers were putting extreme pressure\textsuperscript{(321)} on the workforce not to strike.

The ballot paper was worded in a rather unusual way for instead of stating a particular level of agreement desired, the original demand and the employers' offer were repeated followed by the phrase: "I am prepared to go on strike to prevent the employers from dictating the level of the wage increase." \textsuperscript{(322)}

This apparently reflects the attitude of the regional executive who felt it would mislead the union members to strike for 9.5 per cent since this would arouse false hopes amongst the membership.\textsuperscript{(323)}

It is impossible to state whether the revision in phraseology had any influence, negative or positive, on the result of the strike ballot.

As shown in the following table the result was a resounding success for the union, perhaps as much to the surprise of the union as to the surprise of the employers.

\begin{table}[h]
\centering
\begin{tabular}{|c|c|}
\hline
Year & Result for the Union \hline
1977 & Resounding success \hline
\end{tabular}
\end{table}

\textsuperscript{320} Interview FTO 12, Sep.'77.
\textsuperscript{321} This pressure included offering extensive financial benefits to workers prepared to work in the case of a strike, holding personal discussions with workers to try to persuade them against striking, etc. Interview BRV 5, Sep.'77.
\textsuperscript{322} Author's translation of "Ich bin bereit, zur Durchbrechung dieses Lohndiktats in den Streik zu treten." Stimmzettel - Abschrift, reproduced in \textit{Chemietarifrunde 1977, op.cit.}, p.64.
\textsuperscript{323} Projektgruppe Gewerkschaftsforschung, 1978, \textit{op.cit.}, p.145.
Table 4.3.

Results of the strike ballot for Rheinland-Pfalz 23rd-25th May, 1977. (324)

<table>
<thead>
<tr>
<th>No of Works</th>
<th>Turnout</th>
<th>Percentage Yes</th>
<th>No</th>
<th>Abstentions (a)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ludwigshafen</td>
<td>2</td>
<td>91.9</td>
<td>83.1</td>
<td>16.5</td>
</tr>
<tr>
<td>Mainz</td>
<td>7</td>
<td>95.2</td>
<td>78.0</td>
<td>21.5</td>
</tr>
<tr>
<td>Neustadt</td>
<td>3</td>
<td>89.3</td>
<td>72.7</td>
<td>26.7</td>
</tr>
<tr>
<td>Neuwied</td>
<td>4</td>
<td>97.9</td>
<td>83.6</td>
<td>15.7</td>
</tr>
<tr>
<td>Saarbrücken/Trier</td>
<td>1</td>
<td>79.4</td>
<td>79.2</td>
<td>20.8</td>
</tr>
<tr>
<td>Siershahn</td>
<td>3</td>
<td>93.3</td>
<td>86.3</td>
<td>12.9</td>
</tr>
</tbody>
</table>

1. District Results

2. Overall Result

3. BASF Result

Such a range of clear majorities (325) in favour of strike had the effect of strengthening the resolve of the union members and led to an increased mobilisation on the shopfloor. (326) However, this vote in favour of strike seems to have been greatly influenced by the impression — false as it transpired — that a successful ballot would force the employers into making additional concessions. (327)

Not only did this fail, the inaccurate picture presented by the strike ballot made it difficult for the union leaders to gauge the actual number of members prepared to strike. The regional secretary of

(a) Including spoilt papers.

325. The required majority of 75 per cent was not achieved in four works, three from Mainz (70-74 per cent) and one from Neustadt (ca 50 per cent). Projektgruppe Gewerkschaftsforschung, 1978, op.cit., p.146.

326. Ibid., p.147f.

327. This impression was gained both by the Projektgruppe Gewerkschaftsforschung (Ibid., p.148) and myself.
Rheinland-Pfalz estimated that around half of those who stated they were prepared to strike in the ballot would actually have done so.\(^{(328)}\)

Meanwhile the employers were at pains to denigrate the success of the strike ballot. They stated that the votes in favour of strike only accounted for 45.6 per cent of all employees in the works which were balloted.\(^{(329)}\) Even at BASF which is fairly well organised, less than half voted in favour of strike.\(^{(330)}\) In their documentation the employers further stated that only 32.6 per cent of all employees in the region were prepared to strike, but this argument is irrelevant, although a clever use of statistics.\(^{(331)}\)

Thus, although the only strike ballot carried out in the chemical industry was a success for the union, it did not succeed in bringing about an improved offer from the employers. It seems, then, that education of the membership is required should the union desire not to find themselves in a similar situation of not knowing what percentage of their members are prepared to strike.\(^{(332)}\)

The 1977 wage round in Rheinland-Pfalz chemical industry was also characterised by another common feature of collective bargaining in

\(^{328}\) Interview FTO 12, Sep.'77.

\(^{329}\) This is a reflection of the low degree of union density in the German chemical industry since these works were selected for their union strength and militancy. Chemietarifrunde 1977, op.cit., p.15.


\(^{331}\) Ibid., p.15.

\(^{332}\) Nevertheless, to have lost the strike ballot would have been a serious defeat for union, and the wave of solidarity arising from the good result could have been used to better effect.
German. (333) Should a strike situation seem to be developing or a strike once started, seem difficult to resolve, then "political mediation" (334) often occurs.

Besides this example, political mediation has been of significance on at least two other occasions in the chemical industry. In 1970 negotiations failed in Hamburg, and joint conciliation was also unsuccessful. One week after the peace obligation had ceased and under the pressure of spontaneous stoppages, a meeting of both sides was held under the chairmanship of the Hamburg Labour Minister. This meeting which had been requested by the employers led to an agreement. (335)

Another example is provided by the chemical industry strike in 1971. Intense political pressure was put on both sides to settle, first at state level, but this was unsuccessful. Finally both parties were brought together nationally by the Federal Government under the chairmanship of the President of the Federal Social Court and he managed to get the parties to agree to his recommendation for a settlement. (336)

Political mediation is important since it can bring the parties back to the bargaining table without either side showing weakness by requesting a re-opening of negotiations. Opinions of respondents on its desirability varied but some considered that it was almost inevitable should

333. Full details of how the 1977 dispute was finally resolved can be found in Ibid. and Projektgruppe Gewerkschaftsforschung 1978, op. cit., p.160ff.
334. This means mediation by politicians or other public figures and is known in German as "politische Vermittlung".
336. Dzielak et al., op. cit., p.150ff.
an important industry approach a dispute situation. (337) Generally, then, political mediation was felt to be positive and not to destroy free collective bargaining provided it stayed within certain limits. (338)

In the period 1963 to 1975 there were around four official strikes within the West German chemical industry but only one of these, in 1971, was as a result of a regional issue. (339) There were also a number of unofficial strikes, most of them spontaneous in nature and limited in duration and extent. Some of these were in support of regional bargaining such as a lightening stoppage of about 8000-12000 employees at BASF in 1977, one the day before negotiations were resumed. (340)

On other occasions, the chemical industry was influenced by the national situation as in 1969 when short strikes occurred in over 40 chemical establishments. (341)

Federal statistics state that since 1962 73 chemical establishments have been affected by strikes and that just under two hundred thousand days have been lost as a result. (342) These figures are, however, an underestimate of the actual number of stoppages as indicated by 1969 which only records a single strike. (343) The reason for this is the

337. Interview ER 8, Nov.'78.
338. e.g. Interview FTO 28, Oct.'78.
339. The remaining strikes were domestic issues. Furthermore, it is not always easy to allocate small companies to particular industries. IG Chemie, Geschäftsberichte, various years.
statistical definition of a strike which requires that a strike must result in more than 100 working days being lost if it lasts less than a day and/or involves less than 10 people. (344)

It is of interest to reflect, therefore, why a strike occurred in 1971 given that large strikes have not been called in the German chemical industry since the 1920's. A number of factors seem to have contributed to the occurrence of this strike.

The chemical industry had been only slightly affected by the economic crisis of 1966/67 but suffered a minor recession in 1970 as a result of over-capacities of production. Furthermore the September strikes in 1969 together with the minor disputes in the chemical industry during the 1970 wage round (345) had served to increase the degree of militancy within the union. This increase in militancy was accompanied by a fairly intense internal discussion in the union on such matters as domestic bargaining and the rights of lay officials. (346)

The Arbeitsring recognised the chance of the wage round developing into a dispute at an early stage, and given the economic situation calculated that it would be a good opportunity to reduce the influence of the more radical group within the union by letting them lead the union into a defeat. The employers believed that this very split in the union could itself contribute towards defeating the strike. (347)

344. There are no statistics whatsoever on overtime bans, working-to-rule, etc. Statistisches Jahrbuch, 1979, op.cit., p.91.
345. On these disputes cf. Dzielak et al., op.cit., p.84ff.
346. This discussion was not as strong as in the Metalworkers' Union. Ibid., p.466f.
347. Ibid., p.391ff.
Under these circumstances strong resistance on the employers' side to the union wage demands can be seen to have "forced" the union to take industrial action at a time which was not conducive to victory. Not only was the economic situation in the chemical industry relatively poor, but the Chemical Workers' Union was totally unprepared for widespread industrial action.\(^{(348)}\)

Although the propaganda activities of the employers which were discussed above constitute an important part of their anti-strike defence, they do employ a wide number of other measures. These actions are coordinated by the employers' associations through their guidelines for industrial disputes\(^{(349)}\) and by keeping in close contact with a company threatened with industrial action.

These guidelines are detailed, providing potential solutions to a large number of problems which could arise before, during or after a strike\(^{(350)}\). Due to its systematic layout going from the assumption that the aim will be to keep the plants running\(^{(351)}\) it allows for prior planning and fast reaction of an easily co-ordinated nature.

The basis of the employers' anti-strike measures is a plan of reaction to the union's activities which is divided into four stages:

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348. One reason for this was doubtless the union opinion that the Arbeitsring would try to prevent a strike at all costs. \(\text{Ibid.}, \text{p.396f.}\)

349. Arbeitsring Chemie, Hinweise für den Arbeitskampf, Heidelberg, 1977. (cited further as Hinweise ...).

350. For example it provides details for the erection of an office to run the strike defence, stating what facilities and provisions it is likely to require. \(\text{Ibid.}, \text{p.7.}\)

351. \(\text{Ibid.}, \text{p.1.}\)
1. Preliminary basic plans in case of industrial action.

2. Defence measures when industrial action, and especially strike ballots are threatened.

3. Defence measures after the ballot and call for strike action.

4. Defence measures on strike action and during the strike."

The measures that are recommended fall into a number of categories such as technical and personnel plans, particularly with reference to safety cover; ensuring the running of power plants, the switch board and telex service; compilation of a strike documentation on which subsequent legal action or defence can be based; special treatment for various groups of employees and contact with the local authorities, especially the police force.

Furthermore, the guidelines also contain a number of procedures covering such matters as lockouts, defence against illegal strikes and details of the implication of strike law on conditions of employment and insurance. The law has paid an important part in some past disputes in the chemical industry. For example, in 1971 a large number of interlocutory injunctions were used against pickets; charges were also brought against pickets who used threatening behaviour and the police


354. Hinweise ..., op.cit., parts IV, V, VI and VIII.

355. Einstweilige Verfügungen.

played a significant part in quelling some demonstrations. (357)

The importance of such measures to the employers is illustrated by some of those used in the Rheinland-Pfalz dispute of 1977, and particularly by the high costs which the employers were prepared to incur. First the employers association ordered all its members to pay a "voluntary" wage increase of 7%, so apparently limiting the amount of the increase gained by the union. (358) Second, choice of a policy of keeping the plants running required ensuring access to the works and an ability to remain in the works for longer than necessary. In order to keep pickets off works property, the edge of the BASF property was painted with a blue line. Since the company owns property well outside the normal fences and gates, pickets could be prevented from approaching the works very closely. (359) Beds, food, drink, etc. were taken into the BASF works in great quantities. (360) In addition, large bonuses (361) were offered to all strike breakers. Despite the fact that the strike did not take place these and other measures cost BASF around DM 2 million, (362) a figure which they would clearly have been prepared to exceed in order to win the strike.

357. cf. Dzielak et al., op.cit., p.250ff.
358. Chemistarfurunde 1977, op.cit., p.11f. Although it can be argued that the employers would probably have had to pay this level of increase in arrears, by paying it earlier than required considerable loss of interest on investment was incurred. It also provides a good example of the solidarity with which the employers acted.
360. Interview ERV 5, Sep.'77.
361. Around 500 DM per week with more at weekends. Interview ER 10, Sep.'77.
362. Interview FTO 12, Sep.'77.
The early planning, abundant resources and centralised co-ordination of the employers' anti-strike measures all contributed to their undisputed success in the dispute situations in 1971 and 1977. One area in particular where the Chemical Workers' Union has to-date been unable to challenge the employers with any large degree of success is that of safety cover. Generally the union has had to accept the employers' figures for the size of the cover required for lack of their own despite the fact that they have known them to be over generous. A large number of men carrying out safety cover and who must therefore cross the picket lines can have a negative effect on the morale of the other strikers.

Regional bargaining has led to a very small number of dispute situations in the German chemical industry since the Second World War. On only one occasion has there been a strike of any significance. Nevertheless, given this limited experience of disputes, it seems that the employers and their associations have been able to outmanoeuvre the Chemical Workers' Union. The primary reasons for this have been good preparation and planning, effective co-ordination between the regions, the employment of extensive resources to finance anti-strike measures, and an ability to understand the union's weaknesses.

In 1971 the Chemical Workers' Union rejected the use of a strike ballot

363. One example of success in this area during the 1971 dispute was described in Dzielak et al., op.cit., p.369f.
365. The reasons for this are discussed in more detail in Chapter 7.
but found so many problems in calling their members out on strike that since this time it has been considered more important to hold a ballot than to gain the advantage of fast industrial action. This has perhaps also reflected the hope that by allowing time for a ballot, some other solution to the dispute might be found. One way in which this could come about is through political mediation which has been used successfully in the chemical industry. For the Chemical Workers' Union, therefore, strike action has certainly not been the ultimate weapon.

d. **Summary.**

Regional bargaining which has traditionally been concerned with wage issues illustrates the relationship between union and employers' associations in the German chemical industry. This relationship is seen to consist primarily of the co-operative solution of potentially conflictual issues.

Both sides make extensive preparations for the wage negotiations. Part of these preparations take the form of intra-organisational bargaining as has been described above, and the aim of which is to provide the organisations with a unified approach to the wage round. However, on the union side this has not always been so successful. Another function of the preliminary preparations is to provide the negotiators with the necessary ammunition with which to carry out their war of words.

In the chemical industry it is unusual for the union and employers' associations to come to agreement, even in part, before the "actual"
negotiations have taken place. Generally, negotiations may be divided into a number of phases, particularly in those regions which bargain first, and also contain the largest concentrations of the chemical industry, so generally determining the level of the wage agreement for the industry.

The first phase may be classified as "a long overture" and it fulfils a number of functions. Not only does it allow for the release of aggressions and tensions between the parties at a time when this is unlikely to cause serious harm to the negotiations, it also enables a full discussion of the issues from both points of view. In addition to this, these early contacts create the climate in which the subsequent more critical negotiations are carried out.

During the second stage of the negotiation process the two bargaining parties engage in a barter for concessions which normally begins with the establishment of the negotiating range when the employers make their first offer to the union. By trading concessions the negotiators work towards an acceptable agreement which should be a reflection of the power situation between the two organisations, or more accurately their separate evaluations of both their own and the other side's power. Other external factors do, of course, influence the level of the final agreement such as the general economic situation, agreements in other industries and attempts by government to control the level of wage increases.

366. In this way, wage negotiations have been likened to a game of poker. cf. E.G. Vetter, Pokerspiel um den Lohn, Stuttgart, 1974.
In the third phase of negotiations either the final points of the agreement are finalised or else the parties must decide to break off the negotiations and move to the next stage in procedure, the joint conciliation board. A number of considerations might lead to such a step. For example, tactics might well dictate that a delay is required before agreement is reached, or else the employers might hope that they could get a better compromise from their point of view in the conciliation meeting than in open negotiations. Of course, it is also possible that agreement has simply been impossible given the climate of negotiations, however, this is probably rare.

The joint conciliation procedure has been very important in the chemical industry, for it has often been here that agreement has been achieved as far as the first regions to bargain are concerned. This procedure is certainly more near to joint conciliation than to arbitration due to the absence of a "neutral" chairman. This is a reflection of the technical complexity of the chemical industry and the desire of both parties to be fully responsible for any agreements in the industry, a desire born in the experience of state arbitration during the Weimar Republic.

The importance of joint conciliation is also reflected in the greater centralised control exercised over it, particularly by the Chemical Workers' Union. In character the procedure is, though, little more than a continuation of bargaining at a slightly higher level and with a somewhat different character as a result of the ability of the board
to make a binding agreement by achieving a simple majority. However, the climate on the board has been known to vary from very informal to highly strained depending on the situation and the personalities involved.

The negotiation system including the joint conciliation procedure seem to function well since both parties are apparently satisfied with it. On the union side this is especially so, since the revision of the previous conciliation agreement in 1976. The employers, on the other hand, preferred the original two-tier system.

Another reflection of the successful functioning of the system is the lack of disputes which have arisen from regional bargaining. This success can partly be accredited to the legislation which provides a procedural framework for the negotiations which is generally accepted uncritically in Germany. As such, this is perhaps a reflection of the attitude towards legislation which is prevalent in the Federal Republic.

On the union side there are certainly grounds for dissatisfaction since until now they have scarcely been able to impose their will on the employers' associations in regional bargaining. This reflects the "balance" of power between the two sides. Negotiations between the employers' associations and the unions are not only conducted regionally, however, they also negotiate nationally and this topic is considered next.

(iv) **National bargaining.**

The traditional separation of the rules of employment into procedural
and substantive issues (367) provides a suitable means of analysing national bargaining in the West German chemical industry. At this level both types of issues are of considerable importance whereas very few procedural matters are regulated in regional bargaining. (368)

An excellent example of a procedural agreement in the German chemical industry is afforded by the conciliation regulation. The circumstances under which the conciliation agreement was recently renegotiationed were reviewed above. (369) The negotiations themselves were carried out by experienced officials on both sides. For this purpose the employers selected a special bargaining committee of ten from the full committee of thirty. (370) The union bargainers were selected from the national committee which negotiates conditions of employment. (371)

The agreement was negotiated in a way similar to that described above but due to the complexity of the subject and a number of controversial issues, five meetings were required before agreement could be achieved. (373)

The issues which caused particular difficulties in the negotiations were the degree involvement of the central organisation, (374) how long the cooling-off period should be, (375) and the possibility of an intermediate

368. Such as the clauses concerning the notice of termination and earliest date of termination in wage agreements. of. Lohn- tarifvertrag ... Niedersachsen, 15.6.77, op.cit., Para.4.
369. See Section (iii)b.
370. Interview ER 14, Nov.'78.
371. Manteltarifkommission, Interview FTO 7, Nov.'78.
372. Interviews ER 12, Feb.'78 and FTO 28, Oct.'78.
373. Held over a period of about three months. Interview ER 1, Nov.'78.
374. Interview ER 8, Nov.'78.
375. The original union resolution stated that the maximum length of this period should be one week. GH 72-75, op.cit., p.A.118.
In the main a compromise was achieved between the two positions. The significance of conciliation within the collective bargaining process has been illustrated above by considering its role within the system of regional negotiations. It is a very important extension to the legal procedural provisions for collective bargaining which makes a positive contribution towards the efficient functioning of the negotiating system.

Another example of negotiations on procedural issues which are being conducted nationally in the chemical industry is provided by the committee dealing with the question of unified pay agreements for blue- and white-collar employees. These discussions which have already been underway for two years may well take several more years to complete, however, unified pay agreements remain one of the main long-term aims of the Chemical Workers' Union in the area of collective bargaining, as a result of their commitment to status harmonisation.

A large number of substantive issues are negotiated at national level. Amongst these are the recent incidences of wage bargaining at this level which have already been mentioned. In 1975 the Chemical Workers' Union NEC decided that given the poor economic position they would be better advised to attain a moderate wage increase whilst at the same

376. Ibid., p.380.
377. Interviews ER 1, Feb.'78 and FTO 22, Nov.'78.
378. This committee has been discussed briefly above, see Chapter 3, Section (ii)b.
379. The original moves came as the result of a motion at the National Conference in 1972. By 1976 two company agreements of this type had been achieved. GB 72-75, op.cit., p.359.
380. Interviews FTO 4, FTO 6, Aug.'77 and FTO 5, Feb.'78.
time negotiating an agreement which would improve the situation of permanent employees in the chemical industry who became unemployed. (381)

The general agreement on conditions of employment in the chemical industry is also negotiated nationally, with a revision of the agreement occurring approximately every five years. (382) Notice of termination of the agreement was served by the Chemical Workers' Union on time in mid 1977. The NEC recommended meanwhile that the bargaining committee should consider demanding measures which would reduce the pressure of unemployment. (383)

The employers stated that they did not want to enter into negotiations on conditions of employment. (384) Eventually both parties agreed to combine these negotiations with the coming wage round, (385) and this is the reason that national wage negotiations took place in 1978, and also in 1979, since the previous year only an interim solution was found

381. of. Ibid., p.374ff.
382. The bargaining is carried out by the autonomous employers' national bargaining committee and the central union bargaining committee. Projektgruppe Gewerkschaftsforschung, Vol.1, 1979, op.cit., p.124f and Interview FTO 6, Aug.'77.
384. "Ungewöhnliche Bitte an die IG Chemie: Rücknahme der Mantel­ tarifkündigung," Infobrief, 12/77, p.7. However, this request might simply have been a tactic in order to put pressure on the union leadership to accept national wage negotiations.
385. To help the union to accept this form of bargaining the employers offered two additional days holiday even before negotiations had officially begun. (Informal discussions).
to be union's claims in the area of conditions of employment. In 1978 the regional bargaining committees had the opportunity to ratify this agreement and although there was a four to one majority in favour of the agreement, the level of dissent in the union about the procedure used by the leadership was such that the following year full consultation took place.

The results of the negotiations on conditions of service in 1979 must be seen as a considerable success for the Chemical Workers' Union. After long and complicated negotiations, they received concessions on two issues of principle, a minimum of six weeks holiday from 1984 and a reduction in the length of the working week for shift workers from 42 to 40 hours with a partial guarantee on stability of earning. In all there were about 20 revisions in the conditions of employment as a result of these negotiations.

That this number of changes can occur in an agreement after a relatively short period of time reflects the complexity of the agreement itself. This agreement in its 1978 form constitutes a booklet of around 60 pages and covers a wide range of issues, such as:

386. Together with the increased holiday, improvements in the support for unemployed chemical workers and some changes in wording were agreed. The agreement was terminable with one month's notice on 31.12.1978. "Tarifrunde chemische Industrie - Ergebnisse der Spitzen Gespräche in München," Pressedienst, XIV/12, 13.4.1978.


1. Definition of industries and employees covered.
2. Times of work,
3. Definitions of overtime, night work, etc,
4. Bonuses for overtime, shift work, etc,
5. Short time working,
6. Time off,
7. Sickness,
8. Payments after death,
9. Conditions concerning commencement and ending of employment,
10. Holidays,
11. Protection against rationalisation and job security.\(^{(391)}\)

Since 1973 this has been a joint agreement for blue- and white-collar workers\(^{(392)}\) so that conditions of employment are generally the same for these two groups of employees. However, white-collar workers do still retain some traditional privileges such as not requiring a doctor's certificate if away sick for less than three days whilst blue-collar workers must supply a note on the first day of their absence.\(^{(393)}\)

Although the previous discussion has been concerned with periodic revisions of the whole agreement it is possible for single items to be negotiated at any time, for example in connection with the regional wage rounds.\(^{(394)}\) However, these issues are generally an extension

\(^{392}\) GB 72-75, op.cit., p.360.
\(^{393}\) cf. Manteltarifvertrag, 1978, op.cit., p.27.
\(^{394}\) Interview FTO 2, Aug.'77. An example of this is the agreements made about an annual bonus of one month's earnings, as for Hamburg in 1970. GB 69-71, op.cit., p.332.
of the agreement by an additional clause rather than the revision of an existing clause since the employers would not be bound to bargain about such an issue unless the agreement has been terminated.\(395\)

The range of the general agreement on conditions is of considerable importance since no chemical manufacturer who is a member of the employers' association may run his establishment at worst conditions. Sometimes, particularly in the larger chemical companies, these conditions are improved, either voluntarily or by works council agreement.\(396\)

The general agreement on conditions of employment for academically qualified staff which, together with the salary agreement for this group\(397\) was seen as a reflection of the large number of such staff in the chemical industry,\(398\) contains both substantive and procedural sections. On the substantive side it regulates conditions of commencement and ending of employment, the conditions under which agreements on company secrets and a relinquishment of competition rights may be made, as well as holidays, etc. The procedural section of the agreement provides a detailed conciliation procedure for both collective

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396. To use a simple example, one company, Kronos Titan GmbH, has introduced the regulation that blue-collar workers only need to produce a doctor's certificate after three days absence. cf. Kronos Titan GmbH, Arbeitsordnung, Leverkusen, 8.10.75, p.20. (This is a works council agreement).

397. This agreement is the one example of annual national wage negotiations which are regularly carried out in the German chemical industry.

398. cf. Chapter 2 Section (iii)b for details of these agreements and who negotiates them.
and individual issues. This clause must be terminated separately from the rest of the agreement and not until the end of the year following the termination of the remaining sections. (399)

A further instance of a national substantive agreement is provided by the agreement concerning the temporary employment of young people without a secondary school certificate. This agreement was reached between the Arbeitsring Chemie and the Chemical Workers' Union in 1977 and revised in 1979. (400) Once more the NEC did not follow the full consultative procedure and this created some considerable criticism within the union. (401)

A number of different forms of national bargaining have been discussed covering a large range of issues both substantive and procedural in nature. In the case of the general agreements on conditions of employment these are very important agreements although their significance is often underestimated amongst union members so that officials felt it unlikely that the membership would be prepared to strike to gain an improvement in them. (402)

The conciliation regulations have become an integral part of the

400. cf. "Jugendliche ohne Hauptschulabschluss: Tarifvertrag novelliert," Infobrief, 5/79, p.6. Informal discussions indicated that the idea for this agreement came from the employers and that the NEC were reluctant to accept it, despite the space it was subsequently given in union publications. cf. J. Walter, "Neuer Tarifvertrag setzt ein Zeichen," Gewerkschaftliche Umschau, 5/77, p.2f.
401. Interview FTO 5, Feb.'78.
402. e.g. Interview FTO 2, Aug.'77. However, were the economic conditions to worsen sufficiently then it is perhaps possible that the membership might strike to protect their jobs, as did the German Steelworkers in 1979. Officials doubted this too, though. Interview BRV 5, Sep.'77.
procedure of collective bargaining in the German chemical industry and respondents did not feel that they would like a system which did not include it. (403) National agreements for academically qualified staff are a reflection of the technological nature of the chemical industry which requires a large number of scientists, technologists and engineers. As a result of the successes achieved by the Chemical Workers' Union in 1979, which took account of the poor employment situation, the union intends to concentrate its future bargaining efforts more solidly on the question of unified wage groups for blue- and white-collar staffs. (404)

(v) Domestic bargaining.

Domestic bargaining is bargaining between individual employers, either for the whole company (405) or for a single site (406) with the local trade union representatives. Since the Chemical Workers' Union no longer publishes figures for the number of such agreements within its organisational area it is impossible to gauge accurately the importance of domestic bargaining to the union either generally or in the chemical industry. (407)

Although a large number of small chemical companies are not members of

403. e.g. Interviews FTO 23, Oct.'78; ER 1, ER 8, FTO 7, all Nov.'78.
405. In this case the agreement which arises may either be known as an Unternehmens.tarifvertrag or a Firmentarifvertrag in German.
406. Haustarifvertrag.
407. However, over the period 1.1.66 to 1.1.69 971 domestic agreements were signed by the union, this being 62 more than for the previous three years; these figures refer to the whole organisational area and not just the chemical industry. GR 66-68, op.cit., p.264.
the employers' associations, it is not known how many of them are organised by the Chemical Workers' Union, or if organised which companies or works have succeeded in forcing the management to bargain with them.

Current estimates of the number of domestic agreements in various regions of the union vary somewhat, although once more there is no differentiation between the various industrial groups. In Niedersachsen it was recently stated there were some 80-90 agreements, whilst in Bayern there were 18 at the same time.

There are certainly very few such agreements with sizeable chemical firms and those which do exist, occur in companies which have a tradition of not belonging to employers' associations such as the multinational oil companies.

These companies whilst not really a part of the chemical industry provide a good illustration of this type of bargaining. The agreements which are reached are usually very good from the union point of view for such companies have a strong economic position and are extremely capital

408. See Chapter 2, Section (iii)a. Nevertheless, a recent research report claimed that 99 per cent of chemical companies covered by the federal definition are members of employers' associations, although it is not clear what the source of this information is. Projektgruppe Gewerkschaftsforschung, Vol.1, 1979, op.cit., p.118.

409. Interview FTO 6, Aug.'77. However, one estimate put the number in this region as high as 200. Interview FTO 5, Aug.'77.

410. Interview FTO 10, Sep.'77.

411. Interview ER 1, Aug.'77.

412. Interview ER 6, Aug.'77.
intensive, with the consequence that labour costs are relatively unimportant compared with keeping the refinery running. In 1978 the length of holiday was extended to a minimum of 27 days and in 1979 a six per cent increase in wages was agreed.

The Chemical Workers’ Union uses the same consultation procedures for domestic bargaining as described earlier in the section on intra-organisational bargaining. However, in this case the collective bargaining committee is only elected from union members in the company or works concerned. Furthermore, the negotiations are usually led by a regional or district officer from the area that the company is located.

The negotiations seem to follow a similar pattern to that discussed previously as it applied to regional bargaining. However, although it is probable that some companies possess them, no evidence of conciliation agreements could be found covering single companies or works. Indeed, not a single respondent was able to cite an example of a domestic conciliation agreement whilst one respondent was able to point out that Texaco had been on strike in Hamburg without resort to conciliation.

This strike is by no means the only incidence of industrial action which

413. cf. B. Robak, op.cit., p.218.
416. Interview FTO 7, Aug.'77.
417. Interview FTO 28, Oct.'78. This example also seems to point to the fact that it is possible to hold industrial action without prior conciliation or arbitration. cf. Section (iii)b, above.
has occurred within the chemical and allied industries in Germany over domestic agreements in recent years. Between 1970 and 1975 at least six have taken place either to gain improvements in an existing agreement or to force the management to concede an agreement with the union. Generally the union has been successful in these disputes. (418)

At one stage, particularly towards the end of the 1960's the Chemical Workers' Union was in favour of extending the range of domestic bargaining in order to improve the agreements it held with the more profitable companies. A number of resolutions were passed at union conferences (419) and in 1970 a dispute occurred in the Hessen region primarily on this issue. (420)

These moves failed primarily as a result of determined resistance on the part of the chemical employers' associations who still reject any steps that the union might wish to make in this direction. Although they admit that on occasions this form of bargaining would have the advantage of leading to more realistic agreements they doubt that the union would concede worse conditions simply because a company was in an unhealthy financial state. In addition some officials felt it would be foolish for single companies to take on the "whole" Chemical Workers' Union. (421) One main reason, of course, for the opposition of

421. Interviews ER 1, Aug.'77; ER 10, Sep.'77.
the chemical employers' associations to such a trend is that it would remove the most important task from their jurisdiction.

In any case, in recent years domestic bargaining has lost some of the support it once enjoyed in the union, although most officials admit it does have some advantages, since the members can see exactly what the union is achieving for them and since it leads to a reduction in the wage gap. However, some union officers fear that these advantages could only be won with a loss of solidarity within the union. (422)

Therefore, whilst domestic bargaining is very important for those members in companies which engage in it, on the whole it is not particularly significant within the collective bargaining in the chemical industry. It is also unlikely that the importance of domestic bargaining will increase.

(vi) Conclusion.

This chapter has considered bargaining between the unions, primarily the Chemical Workers' Union and chemical employers' associations or the management of individual companies. Such negotiations are an integral and important part of industrial relations in the German chemical industry. This system of collective bargaining is based upon a range of legislation and judge-made law together with certain procedural regulations which have been autonomously agreed by the bargaining parties, for example the conciliation procedure.

422. Interviews FTO 1, FTO 6 and FTO 7, all Aug.'77.
Intra-organisational bargaining amongst the employers and their associations seems to have led to an alignment of the individual companies behind the association officials. This has promoted a successful realisation of policy in the collective bargaining area since it has enhanced a unified, co-ordinated approach towards the unions. Some reasons for the employers' ability to achieve this may be found within the highly centralised structure of the associations, as well as the relatively small number of members within the associations. (423)

The Chemical Workers' Union on the other hand has been by no means so successful in achieving a united front with which to face the employers. This reflects the ideological splits within the union that are partly traceable to the technological nature of the chemical industry, which creates a need for a large number of white-collar staff and it also reflects the regional differences in the chemical industry.

Three regions, Nordrhein, Hessen and Rheinland-Pfalz contain the major concentrations of chemical industry and each region is also the location of the main works of one of the three mammoth German chemical concerns. Although each company is widely diversified, there are significant differences in the production range (424) for them to enjoy different economic circumstances. This situation, together with a higher order of union organisation at BASF were the main reasons that Rheinland-Pfalz

423. i.e. The number of companies on the employers' side is much less than the number of union members, so that it is easier to co-ordinate policy and action.
424. cf. Table 3.4 above.
did not follow the general union policy in 1977.

However, this inability to maintain solidarity within the whole union has had damaging consequences on at least two occasions since the employers have been able to tactically outmanoeuvre the union and then point out the inconsistency of their stance with some success in their propaganda. The strength of the employers in dispute situations has also been increased by the partial failure of the union's internal consultative procedures which have resulted in a lack of knowledge of the support which sanctions might have on the shopfloor.

An awareness of these strengths and weaknesses by the bargaining parties has generally contributed to the low incidence of industrial disputes in the German chemical industry, although the employers were able to force the Chemical Workers' Union into a situation in 1971 whereby a strike became unavoidable. By careful selection of the timing of this dispute the employers were able to practically ensure their victory.

The major illustration of the relations between the union and the chemical employers was provided by a consideration of regional bargaining, the main aim of which is to negotiate wage and salary increases. There is apparently an established pattern of bargaining which is accepted by both sides. Indeed, it might be stated that a considerable body of custom and practice exists in the way that negotiations are conducted. A high degree of respect seems to exist between the negotiators, who also have relationships of trust with each other in the main. Such interrelations are promoted by the frequent contacts between senior officials and they are conducive to peaceful industrial relations.
The most significant regional negotiations take place in the largest three regions, which also are the first agreements to be negotiated in each wage round. The remaining regions deny that their negotiations are a mere formality. Generally, however, the length of the negotiations in these regions together with their adoption of identical agreements to those reached in Nordrhein, Hessen and Rheinland-Pfalz point to the fact that they normally have little import. Despite this, in Niedersachsen the union has adopted a fuller consultation system than used elsewhere in the union and in 1970 there was a minor dispute in the Hamburg region. It can be seen, therefore, that the remaining regions can follow a different course, especially on the union side, should they so desire.

Although a not inconsiderable wage gap exists in the German chemical industry, particularly for blue-collar workers, regional wage negotiations provide the foundation on which the whole wage structure rests and as such they are very important. In fact, the workforce seems almost to take their annual wage increases for granted. If this ceased to occur through a breakdown in the bargaining system then it is likely that the degree of militancy in the workforce would increase markedly.

The desire of the bargaining parties to solve the problems that arise in negotiations amongst themselves via the joint conciliation procedure

425. cf. Chapter 3, Section (iii)e.
is a reflection of experiences with state arbitration during the Weimar Republic and of the technological nature of the chemical industry which might exclude an outsider from a sufficient understanding of the problems. This very desire to come to an autonomous agreement which is held by both parties fosters close relationships between the organisations' officials since the conciliators sometimes come under fire from their own ranks for a specific agreement. In this way conciliators from both sides may have to rely on the support of the other side to "prove" how difficult it was to achieve even such a relatively unacceptable agreement.

National bargaining plays a crucial part in employee-employer relations in the West German chemical industry. The conciliation agreement, an agreement which is itself a fundamental part of the bargaining system which neither side would care to be without, is negotiated at this level. Furthermore, the general agreement on conditions of employment for the whole chemical industry is negotiated nationally. These conditions, although occasionally bettered in some of the largest companies, apply in the vast majority of cases. Since the agreement covers such a range of issues, it is one of the linchpins of industrial relations in the chemical industry. At the same time, however, a great many of these conditions are taken almost for granted by the employees in the industry.

Recently national bargaining has gained further in importance through the extension of national wage negotiations. Although such bargaining

426. cf. Appendix 3, Table 22, below.
possesses a number of advantages for the union, since co-ordination of bargaining becomes easier and approximates that of the employers, it does contain potential hazards. The problems in holding a strike on a regional basis are quite monumental as are the costs. For a national strike these problems are increased many times. To-date even regional strikes have failed in the chemical industry; therefore the chances of the Chemical Workers' Union holding a successful national strike seem minimal. It would seem inadvisable, therefore, for a union to negotiate in such a way.

Domestic bargaining is critical for those members of the Chemical Workers' Union who work in non-federated companies. Strong resistance to domestic agreements by management, or even a refusal to negotiate with the union is likely in the long term to lead to sanctions on the part of the members.

The various levels of bargaining make a significant contribution towards the peaceful nature of employee-employer relations in the West German chemical industry. A number of factors have been required to explain the nature of this bargaining. Not only is the economic state and technological nature of the industry relevant, the industrial organisation also plays some part. Furthermore, legal, social, historical and behavioural factors have also had a bearing on the bargaining system.
Chapter 5.

Workplace industrial relations in the West German chemical industry.

In the previous chapter relations between the Chemical Workers' Union and the chemical employers were considered through a discussion of the bargaining which takes place between them. Such negotiations might be classified as constituting the upper or supra-plant level of industrial relations in the chemical industry. Here, however, relations at the workplace and within the works are examined. Workplace relations can be seen, then, as the second level of labour relations. There are, of course, a great number of overlaps and interconnections between these two levels, which have been separated primarily for ease of analysis.

The data used in this chapter originates from a number of sources. In the first instance information from the Agrochemie AG case study will be used and supplemented by evidence from the background interviews on workplace relations which were carried out in a wide range of chemical establishments.

The limitations of case study data have been discussed elsewhere and in order to minimise them other survey material on workplace relations within the chemical industry has been taken into account for comparative purposes.

1. Except for domestic bargaining, which was shown to be relatively unimportant in the chemical industry.
2. The choice of the terms "upper" or "second" is not intended to indicate the relative importance of the two levels.
3. For further details of the research method of Chapter 1, Section (ii).
A major characteristic of industrial relations in West Germany is the dual system of employee representation which exists at the workplace. On the one hand works councils may exist in establishments with the five or more permanent employees, whilst on the other the Chemical Workers' Union has membership in around 1500 chemical establishments. Thus the two forms of representation are works council and trade unions.

This chapter commences, therefore, with a discussion of works councils within the chemical industry; this discussion is followed by analysis of shopfloor unionism, and the relationships between works councillors and local union representatives. The consideration of workplace relations continues with an assessment of the system of workplace bargaining which supplements regional or national collective bargaining. Finally, the type of working conditions and job satisfaction in the chemical industry are portrayed. As a result of this discussion conclusions are then drawn about the contribution that workplace relations make to the overall system of industrial relations in the chemical industry.

(1) The works council.

The origin of the dual system of representation may be traced to labour legislation introduced during the Weimar Republic. The Works Council

8. The origins of the works council are even further removed. For a recent review of this development cf. K. Koch, Trade Union Workshop Representatives (Gewerkschaftliche Vertrauensleute), in the Federal Republic of Germany, mimeographed report for the Anglo-German Foundation for the Study of Industrial Society, no place (London), 1978, p.13ff.
Act of 1920 halted the revolutionary trends adopted by the workers' councils and led to an emasculation of the works council from the very start through the requirements to co-operate widely with the employer on productivity, labour saving methods and to promote peaceful industrial relations. (9)

As Koch has reported, the early traits introduced into the works constitution at the beginning still have a large impact today:

"The Works Constitution Act of 1952 incorporated the fundamental stipulation that the works council must work in good faith, within its sphere of competence, with the employer, the employers' association and the trade union. The works council was charged with preserving peace in these matters and the right to call a strike was not given. The new law of 1972 still maintains this principle, to keep the peace by working 'together in a spirit of mutual trust' with the employer." (10)

Since the works council is bound in its actions by the provisions in the legislation and the trade union is not, this has led to a separation of the two forms of representation. In addition to the dual representation which results from the legislation, it also leads to an institutionalisation of labour relations within the single works and the company and to the main strength of employee representation resting with the works council rather than the trade union. (11) It is this somewhat paradoxical situation of a strong yet hamstrung works council system and its consequences which are considered here in some detail within the context of the chemical industry.

9. cf. Ibid.
10. Ibid., p.17. This report also provides a useful summary in English of the main provisions of current works council legislation.
11. Dzielak et al., op.cit., p.100f.
The works council is the representative of all employees in the works, company or concern (12) who are not classified as senior managerial staff, etc. (13) The works councillors are elected according to basic democratic principles, (14) and this has a number of consequences given the wide representative competence of the works council.

It is possible, for example, for a white-collar employee who is a member of middle-management to be elected to the works council. Although such status need not necessarily preclude a works councillor from fulfilling his job, it seems likely that he would be more susceptible to management arguments than is ideal in a works councillor. At Agrochemie AG this situation existed as the head of a laboratory was the deputy chairman of the council. Criticism was expressed from within white-collar circles that this should be the case, especially where one respondent worked under the works councillor. He did not feel that his superior could represent his interests in the desired way. Nevertheless, since the majority of the white-collar staff continued to elect the laboratory head, he had to accept the situation. (15)

The electoral system can also lead to the underrepresentation of specific groups in the workforce such as women, foreign employees or shift (especially production) workers. (16) Sometimes the members of these groups are not prepared to stand for election, or when they do, either not enough

12. These differences are explained presently.
14. Some minority groups do have certain special representational rights, BetrVG 1972, Para.10, cf. Fitting et al., op.cit., p.151ff. The electoral system is discussed more fully below.
15. Interview 016, Oct.'78.
16. During the course of the empirical investigations all these cases were met.
of the workforce know them and so do not vote for them or else they are not prepared to vote for members of these groups. This type of situation is far from ideal if the works council is to carry out its representative role which as far as respondents at Agrochemie AG were concerned was the main task of the works council.

These problems are not unique to the chemical industry although there are a large number of shift workers within the production area of the industry. A possible solution might lie in changing the electoral system so that there is more direct delegation of works councillors. However, this is unlikely to occur given the political nature of the act and the difficulties this causes when being revised. In any case it is debatable whether this might not be a retrograde step likely to lead to a lessening of solidarity amongst the workforce. Furthermore, the electoral system is already extremely complicated and additional complications would be unwelcome to practitioners.

17. At Agrochemie AG there was no works councillor in the main production plants, and respondents blamed this on a lack of knowledge of personalities from one shift to another and a general lack of solidarity amongst shift workers. Interview M 8, M 9 and 031, all Oct.'78.

18. Interview BRV 1, Aug.'77. In this way, in the organisational area of the Chemical Workers' Union only 15.4 per cent of works councillors elected in 1978 were women compared with 26 per cent of enfranchised employees. Only 3.4 per cent of works councillors were foreign. "HR-Wahl 1978 - Schnellübersicht", op.cit.

19. Over 60 per cent of the works sample named this works council role. cf. Appendix 3, Table 30 below.

20. The best example of this in recent years is provided by the Codetermination Act 1976. cf. Chapter 2, Section (iv) above. Such delegation can be organised originally into the union list as at BASF. Interview BRV 5, Sep.'77.

21. This complexity is illustrated by the length of the Chemical Workers' Union pamphlet distributed to works councils before the most recent election. This pamphlet was 86 pages long. cf. "Die Wahl des Betriebsrats", Der Betriebsrat, Vol.27, No.1, 1978.
Another possible solution to the problem of underrepresentation lies in the selection of a wider range of candidates by the Vertrauensleute. Since there are similar problems of underrepresentation of the same groups within this circle and since personal ambitions are often closely associated with the selection of candidates, this rarely happens. Other groups may, of course, propose candidates for the works council election provided they can gather one hundred signatures. However, should the proposers also be union members, they risk expulsion from their union for proposing candidates who will oppose the official union candidates. Since the motivation of these unionists is often the improvement of the union position and works council representation, then such heavy handed reaction on the part of the Chemical Workers' Union is to be regretted.

The West German chemical industry has been seen to be characterised by a sizeable number of large establishments and companies as well as a high percentage of white-collar staff. Both these factors seem to have some bearing on the form of works council election chosen, and consequently this has an influence on the composition of the works council.

22. In the Chemical Workers' Union this group of officials which includes the current works councillors, decides on the selection of potential works councillors. of IG Chemie, Richtlinien für Betriebsrätewahlen, no place (Hannover), 15.7.1977.

23. Or those of one tenth of the enfranchised employees. For full details of the legal procedure for proposing candidates cf. Fitting et al., op.cit., p.168ff.

24. Interview FTO 4, Aug.'77. There have been several examples of this in the chemical industry, although they have often subsequently been reinstated by the Appeals Committee. Sometimes these anti-union lists have been reactionary as at Merck in 1972 (cf. "Betriebsratswahlen 1972", in O. Jacobi et al. (eds), 1973, p.57ff and Dzielak et al., op.cit., p.455) and sometimes progressive as at Bayer in 1978. cf. E. Gipperich et al., Gewerkschafter für einen besseren Betriebsrat!, handbill, Leverkusen, 1978.

25. cf. Chapter 3, Section (ii) above.
Although there is no data available with which to test the hypothesis, it seems that in large establishments list elections generally take place.\(^{26}\) In any case, this is logical since there is more chance of opposition groups gathering the necessary support. Limited data from Hoechst AG also seems to support this hypothesis, for both blue- and white-collar groups.\(^{27}\) Furthermore, in large companies such as Hoechst and Bayer the election turnout is very low compared with elsewhere in the industry, perhaps as a result of list elections.\(^{28}\) Generally the turnout is just below 80 per cent, with more blue-collar than white-collar workers voting.\(^{29}\)

In the organisational area of the Chemical Workers' Union the union has mostly been able to achieve its aim of a joint election for blue- and white-collar workers.\(^{30}\) Thus, in 64.2 per cent of cases in 1978 joint elections were held. Nevertheless, particularly in the larger companies a sufficient majority for joint elections is rarely achieved and this possibly reflects the strength of salaried staff organisations in these works.\(^{31}\)

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26. The election may be either according to lists of candidates proposed by organisations or groups, or else for individuals if only one list is submitted. For further details cf. "Die Wahl des Betriebsrats", op.cit., p.46f.


28. Thus, in 1978 only 69.5 per cent of the main Hoechst works voted, whereas some works achieved well over 80 per cent. Ibid., p.57. The Leverkusen district could only achieve a turnout of 59.7 per cent in the same year. Der Betriebsrat, Vol.38, No.3, 1979, p.67.

29. Ibid., p.64. However, throughout the Hoechst company the white-collar turnout was higher. Personalbericht Hoechst 1977, op.cit., p.57.

30. This is general DGB policy (Interview FTO 5, Feb.'78) and is also laid down in the Chemical Workers' Union guidelines on works council elections. cf. Richtlinien für Betriebsrätewahlen, op.cit., Para.4. For the legal regulations which determine the possibilities, cf. Fitting et al., op.cit., p.168ff. The trends in types of elections may be found in Appendix 3, Table 5.

31. The German Salaried Staff Union for example supports the principle of separate elections. cf. DAG, Programm der DAG zur Gesellschaftspolitik, Hamburg, 1976, p.14f.
indication of the importance of this factor was provided by the failure of the Chemical Workers' Union to achieve joint elections at Pelikan in Hannover, a much smaller works where the DAG is very strong.\(^{(32)}\) Other reasons for failure to achieve the aim of joint elections are a lack of interest in the elections, something which the author observed personally in 1975 and lack of sufficient propaganda on the union part.\(^{(33)}\)

Naturally, where a number of different lists exist, the works council is likely to be subsequently composed of a number of factions. If there are sufficient such factions which unite together then they can sometimes wrest control of the works council from the Chemical Workers' Union.\(^{(34)}\) In the case of a joint election, the Chemical Workers' Union is more likely to achieve high representation since they normally receive more support from blue-collar workers who also generally outnumber the white-collar staff.\(^{(35)}\)

The actual composition of the works council seems to depend on a wide range of factors such as local trade union traditions, size of establishment and the personalities involved. There are no figures available for the chemical industry itself, but the breakdown of works councils in the organisational area of the Chemical Workers' Union is given in the following table.

\(^{32}\) Interview FTO 5, Feb.'78.

\(^{33}\) This was felt to be the reason for failure to achieve joint elections at the Agrochemie AG case study works - a small site - in 1978. Interview BR 2, Oct.'78. For the percentage of respondents who turned out in the actual election of Appendix 3, Table 32 below. The actual turnout was 89 per cent. Interview 019, Oct.'78. For a discussion of this discrepancy cf. Chapter 1, Section (iv).

\(^{34}\) As at Merck in 1972. O. Jacobi et al. (eds) 1973, \textit{op.cit.}, p.63.

\(^{35}\) cf. "BR-Wahl 1978 - Schnellübersicht", \textit{op.cit.}"
Table 5.1.
Results of works council elections according to BetrVG 1972 in the organisational area of the Chemical Workers' Union. (36)

<table>
<thead>
<tr>
<th>Representatives</th>
<th>Organisations</th>
<th>Unorg.</th>
<th>IGGPK</th>
<th>Other</th>
<th>DAG</th>
<th>VAA</th>
<th>CGB(a)</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No 1972</td>
<td>767</td>
<td>10192</td>
<td>88</td>
<td>3</td>
<td>-</td>
<td>43</td>
<td>8</td>
<td></td>
</tr>
<tr>
<td>% 6.83</td>
<td>91.89</td>
<td>0.79</td>
<td>0.03</td>
<td>-</td>
<td>0.39</td>
<td>0.07</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No 1975</td>
<td>642</td>
<td>10226</td>
<td>72</td>
<td>10</td>
<td>-</td>
<td>59</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>% 5.83</td>
<td>92.87</td>
<td>0.65</td>
<td>0.09</td>
<td>-</td>
<td>0.54</td>
<td>0.02</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No 1978</td>
<td>770</td>
<td>10486</td>
<td>80</td>
<td>19</td>
<td>1</td>
<td>52</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>% 6.74</td>
<td>91.76</td>
<td>0.70</td>
<td>0.17</td>
<td>0.01</td>
<td>0.46</td>
<td>0.18</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Salaried Staff  |               |        |       |       |     |     |        |        |
| No 1972         | 1134          | 2899   | 40    | 373   | 1  | 10  | 21     |        |
| % 25.32         | 64.75         | 0.89   | 8.33  | 0.02  | 0.22| 0.47|        |        |
| No 1975         | 1067          | 3573   | 38    | 309   | 8  | 8   | 15     |        |
| % 21.26         | 71.20         | 0.76   | 6.16  | 0.16  | 0.16| 0.30|        |        |
| No 1978         | 1209          | 3800   | 50    | 300   | 27 | 9   | 41     |        |
| % 22.24         | 69.90         | 0.92   | 5.52  | 0.50  | 0.17| 0.76|        |        |

| Total           |               |        |       |       |     |     |        |        |
| No 1972         | 1891          | 13091  | 128   | 376   | 1  | 53  | 29     |        |
| % 12.15         | 84.08         | 0.82   | 2.42  | 0.01  | 0.34| 0.18|        |        |
| No 1975         | 1709          | 13799  | 110   | 319   | 8  | 67  | 17     |        |
| % 10.66         | 86.09         | 0.69   | 1.99  | 0.05  | 0.42| 0.10|        |        |
| No 1978         | 1979          | 14286  | 130   | 319   | 28 | 61  | 61     |        |
| % 11.74         | 84.71         | 0.77   | 1.89  | 0.17  | 0.36| 0.36|        |        |

36. Source: Ibid.
GB 72-75, op. cit., pp.406 and 418.

(a) Sometimes abbreviated CGD - Christliche Gewerkschaftsbewegung Deutschland.
A greater fragmentation of works councils is visible in 1978 than in other years and this is a reflection of the increased number of opposition lists which existed in this election. (37) Not only did unorganised works councillors gain in strength once more but the growth of the VAA, an organisation which represents the interests of senior staff, (38) is most noticeable. Nevertheless, the Chemical Workers' Union dominates the works councils together with other DGB unions. (39)

This strength was reflected at the Agrochemie AG case study works, for example, where the whole works council were members of the Chemical Workers' Union. Even under such circumstances, however, it would be a mistake to view works councils as monolithic organisations for it is common for factions to form within the councils. Reasons for this can be organisational, ideological or simply personal. Statements from the Agrochemie AG works illustrate this:

"There was a split in the works council at the initial meeting. An attempt to replace the chairman failed. However, afterwards we have to work together or else we can't get anything done." (40)

"I don't sit on any of the committees ... I was forced into opposition as I didn't think the chairmanship should remain on one hand or be inherited, so I was the opposition candidate. Generally, there's no conflict now." (41)

When such splits in the council persist through the period of time it is in office, it can greatly handicap the works council. There are, however,

38. cf. Chapter 2, Section (iii)b above.
39. DGB unions often stand together on the same platform when a company covers more than one industry. cf. Chapter 2, Footnote 379.
40. Interview BR 2, Oct.'78.
41. Interview BR 5, Oct.'78.
occasions when such opposition may well be quite justified, if the works councillors are monopolising power for their own ends, for example. This often leads to a weakening of the trade union and alienation between the works council and the workforce and it is then common for active trade unionists from within the same union to oppose the works council majority. (42)

Once the election has occurred, "the legal position of the works council is characterised by a certain aloofness from the workforce. The works constitution scarcely intends that all or part of the workforce should be actively involved in the representation of their interests. For example, although the works assembly can send resolutions to the works council and given an opinion of its decisions, it cannot instruct the works council what to do. The peace obligation forbids the works council from mobilising all or part of the workforce in order to strengthen their negotiating position." (43)

Therefore there is generally very little contact between works councillors, particularly the full-time ones (44) and the workforce after the election.

42. This is the situation at Bayer AG, Leverkusen at present (Personal observations and informal discussions).


44. A number of the works council are released from their previous jobs to carry out representative duties on a full-time basis. This number varies according to the size of the works. cf. BetrVG 1972 Para.38, and Fitting et al., op.cit., p.364ff.
Shift (especially production) work further increases the problem for the full-time works councillors are only available during the day. It might take several weeks therefore for a shift worker to bring a problem to a full-time works councillor.\(^{(45)}\)

At Agrochemie AG there was some considerable criticism of the amount of contact the full-time works council chairman had with the workforce.

"There are very rarely discussions since the works council chairman\(^{(46)}\) doesn't come around the plants very often. Perhaps we've so few problems that he doesn't have to talk to us." \(^{(47)}\)

"In the mines the works councillors used to come around and discuss our problems every day. That's what I miss here - you only see him when the elections are coming up." \(^{(48)}\)

These statements seemed to reflect feelings in general and the visits of the chairman to the plants prior to the election were rather like adding insult to injury.\(^{(49)}\) Whilst it is possible to spend too much time touring the plants at the cost of other important tasks,\(^{(50)}\) a lack of contact

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45. Often there are no works councillors on a particular shift or within a specific production area. This was the case at Bayer AG and was one of the reasons for the formation of the active trade union opposition list for the works council election in 1978. (Informal discussions).

46. Since there was only one full-time works councillor at Agrochemie AG, he was often referred to as "der Betriebsrat" - the works councillor. Interview M 9, Oct.'78.

47. Translation of a statement from Interview VL 1, Oct.'78.

48. Translation of a statement from Interview M 4, Oct.'78.

49. Similar results were reported in A. Horné, Der beklagte Sieg, Villingen, 1964, p.189 and in H. Kotthoff, *op.cit.*, p.89 where the chemical industry was reported to have the least frequent visits of works councillors to the plants. (In a sample of a wide range of different sized companies from the metal processing, chemical, textile, printing, food processing and timber industries of Südbaden. This study is in effect a revision of Blume's original investigation. cf. O.Blume, *op.cit.*) H. Kotthoff, *op.cit.*, p.1ff.

50. Such works councillors are sometimes called "back-slapping socialists" or "Schulterklopfsocialisten".
between the full-time works councillors and the workforce led at Agrochemie AG to resentment and alienation amongst the workforce. (51) Nevertheless, very few respondents actually challenged the value of the institution of full-time works councillors at Agrochemie AG even after exercising a certain amount of criticism. (52)

Should an employee at Agrochemie AG have problems then he has to visit the works council during consultation hours (rather like a doctor) which are held every week. However, not many employees seemed to make use of this opportunity (53) - perhaps because the works council was not available at the time when the problem was most pressing.

In addition, Kotthoff's study reveals that works councils in the chemical industry do not inform the workforce of important occurrences to the same extent as those in other industries. (54) This seems to reflect badly on the qualities of the works council in general as this is an important indicator of behaviour. (55) Similar circumstances were met at Agrochemie AG where the works council seemed reluctant to pass on information even to the union lay officers. (56) Indeed, one works council respondent refused to answer a number of questions on discussions held in the council,

51. For example: "I'm not very satisfied with the chairman. He's forgotten that he used to be a craftsman and what it's like. What's more, he always replies, 'I don't know', when you ask him a question." From Interview 040, Oct.'78.
52. cf. Appendix 3, Table 36 below.
53. Interview BR 1, Oct.'78.
54. H. Kotthoff, op.cit., Graphik Nr. 54.
55. Ibid., p.87f.
56. These attitudes and the problems they can cause are discussed in more detail below.
claiming they were secret. (57)

Another recent investigation indicates that the degree of information amongst the workforce on a variety of topics affecting their work varied considerably. However, it did confirm that the works council was not an important source of information, nor were works assemblies. The major source of information was the management hierarchy. (58)

Under these circumstances it is not surprising that Kotthoff should report that most senior works councillors from the chemical industry did not consider that the works council was well informed of what was going on amongst the workforce, (59) or that the workforce had much confidence in the works council. (60)

Landwehrmann and Albring have indicated that neither works assemblies nor notice-boards are particularly important as sources of information for the workforce. (61) These results seem to be confirmed by the Agro-

57. Interview BR 2, Oct. '78. This is not true (cf. BetrVG 1972, Para. 120) unless the matter has specifically been declared to be a company secret by management. Such ignorance (real or feigned) could easily lead to conflict between lay officers and works councillors.

58. Landwehrmann and Albring, op.cit., p.32ff. It might be borne in mind, however, that this study was heavily supported by the chemical employers. Ibid., p.8f and "Information und Mitwirkung-Ergebnisse einer Umfrage bei Chemiebeschäftigten," Infobrief, 11/77, p.6.

59. Only 9 per cent of works council chairmen and 22 per cent of deputy chairmen claimed the works council was well informed. The chemical industry lies much lower than the other industries. H. Kotthoff, op.cit., Graphik Nr.55.

60. Once more the chemical industry comes off worst. Ibid., Graphik Nr.57. However, these results do contrast strongly with the general satisfaction amongst the Agrochemie AG workforce with the work of the works council which seemed to act in a similar way to that portrayed here. cf. Appendix 3, Table 33 below. It was also seen that these evaluations do not necessarily agree with the findings on the effectiveness of works council representation in the chemical industry. See below.

chemie AG case study despite claims to the contrary by workplace representatives. There was no association between the reading of notice-boards or attendance at works assemblies and knowledge of the works councils rights or roles.

However, similar factors did emerge when considering reasons for the inadequacy of both these forms of disseminating information. As far as notice-boards are concerned, there seemed to be an insufficient distribution through the production plants, so in such cases the grapevine takes over.

In the case of works assemblies, an immediate difference in attendance is found between the "acid plant" which might be considered a typical production plant and between the works sample. Hence it was hypothesised that shift workers found it very difficult to attend works assemblies, and this was confirmed by crosstabulation followed by the chi-squared test for association which was significant at the 1 per cent level.

An explanation for this association can be found by considering the time that works assemblies are held and the shift system. The assemblies are held at 2.30 pm and thus the shift who cease work at 2 pm can attend with ease. However, due to the manning levels most of the late shift cannot

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62. Interviews VL 1, VL 3, VL 5, BR 1, BR 2 and BR 4 all Oct.'78.
63. cf. Appendix 3, Tables 26 and 35, chi-squared tests having been carried out after crosstabulation.
64. Interviews VL 3, VL 5 and M 10, all Oct.'78.
65. cf. Appendix 3, Table 35.
66. This attendance is paid at normal rates. BetrVG 1972, Para. 44, cf. Fitting et al., p.410ff.
be released to attend. The night shift (due to start at 10 pm) must come in midway through their rest-time and the free shift on a day when they would otherwise not need to come. As many workers have to travel some miles to attend, it is not really surprising that very few besides the early shift attend. However, the works assembly is transmitted via close circuit television to the workshops for the maintenance workers. Although there seems to be little relationship between attendance at works assemblies and knowledge of works council rights and roles, the privileges enjoyed by craftsmen might contribute to their being better informed.

This infrequent attendance of works assemblies is reflected in the range of answers provided by Agrochemie AG respondents about the frequency with which the assemblies are held, which here was every three months as regulated by legislation.

Elsewhere in the chemical industry there is some evidence that, in some 50 per cent of works, assemblies are not always held as frequently as laid down in the Works Constitution Act. In this, however, the chemical industry does not seem to be markedly worse than other industries.

One solution to this problem may be found in the provisions which permit

67. e.g. Interviews VL 3, 007, 012, 014, 015, 035, 043, all Oct.'78.
68. Interviews BR 5, M 10, Oct.'78.
69. See below.
70. cf. Appendix 3, Table 34. Chi-squared test showed an association between attendance and knowledge of frequency at the 3% level of significance. 88 per cent of respondents who always attended answered correctly compared with 68 per cent of those who only do so occasionally.
71. BetrVG 1972, Para.43.
72. H. Kotthoff, op.cit., Tabelle Nr.19.
separate assemblies to be held for each shift\textsuperscript{73} but at Agrochemie AG, a small works, there was no interest for this.\textsuperscript{74} Furthermore, works assemblies should be made more interesting by inviting a wider range of speakers and by ensuring that any questions asked receive a satisfactory answer.

The Works Constitution Act 1972 gives the works council a wide range of responsibilities and rights. In addition to such general tasks as ensuring that all laws, safety regulations, collective agreements and works council agreements are enforced,\textsuperscript{75} these rights and responsibilities include "a number of rights of co-determination, consultation and information ... in the areas of social policy matters, personnel matters and economic matters."\textsuperscript{76} This constitutes the second level of co-determination\textsuperscript{77} and provides the works council with the majority of its potential teeth, given the limits of co-operation with management and the peace obligation which have previously been discussed.

Works councillors interviewed saw their role primarily in the light of this legislation. Their main tasks were to regulate the problems and grievances of the employees and to represent their interests. Particular

\textsuperscript{73} BetrVG 1972, Para.42.
\textsuperscript{74} Interview VL 5, Oct.'78.
\textsuperscript{75} For a full range of such general tasks cf. BetrVG 1972, Para.80, also Fitting et al., op.cit., p.617ff. As discussed later, in this way the works council, a non-union institution, is responsible for ensuring that union agreements are enforced.
\textsuperscript{76} K. Koch, op.cit., p.20. Koch gives further details of these rights which are not listed here since they are discussed where relevant. In the legislation these rights are primarily regulated in the BetrVG 1972, Paras. 87, 91-99, 102 and 106. Particular emphasis can be given to works council rights on dismissals. cf. Para.102.
\textsuperscript{77} For the first level cf. Chapter 2, Section (iv).
stress was given to negotiations and the preliminary work for them, committee work, personnel matters such as dismissals, working conditions and safety. This latter area received considerable emphasis in a number of interviews reflecting perhaps the potential hazards in the chemical industry.

Kotthoff has discussed the difficulties in both portraying the range of activities in which works councillors are involved and in assessing their effectiveness. Due to limitations of time and resources the empirical studies were restricted to an evaluation of the works council by one workforce in particular and to works councillors own assessments of their role and efficacy. It has been shown, however, that works councillors do not give an accurate picture of their effectiveness in interviews. The employees' assessment of works councils remains of considerable interest, however, and this chapter will concentrate on their views together with some of the most important works council tasks which can be illustrated with the help of empirical as well as secondary data.

In order to compare the findings at Agrochemie AG with those of Blume, identical wording was chosen for the initial question on the role of the works council. In general Blume's results were confirmed, allowing for the rather different nature of the works sample at Agrochemie AG.

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78. This paragraph is a distillation of a large number of statements, mainly from the following interviews: BRV 1, Aug.'77; BRV 5, Sep.'77; BRV 15, Nov.'78 and BR 1, Oct.'78.
79. Interviews BRV 1, Aug.'78; BR 2 and BR 3, Oct.'78. Safety is discussed in greater detail below.
81. Ibid., p.132.
82. cf. Appendix 2.1, Question 28 and O. Blume, op.cit., p.22.
which specifically included high percentage of those people involved in workplace industrial relations who might, therefore, be expected to have a high degree of knowledge of this important issue. However, as Blume found in the majority of cases, respondents did not define the works council's role in terms of the legislation but simply that it should represent the employees' interests. These general answers seemed normally to hide a lack of detailed knowledge since 43 per cent of the works sample was only able to name one or less than one role. There was, however, a limited degree of detailed knowledge particularly amongst those respondents heavily involved in workplace industrial relations, although very few respondents could name more than four individual groups of tasks. Of all specific issues, the personnel co-determination tasks were best known and this undoubtedly reflects the importance of this area.

Blume assumes that the order of answers reflects the wishes of employees rather than the actual tasks carried out. This is uncertain. Two recent surveys in the chemical industry have dealt directly with this question but led to widely different results, although both report some differences between actual and desired activities. One survey gives wage issues as the most frequent activity of the works council whilst stating that the issue that respondents most desired to be regulated was the

83. Ibid., p.23.
84. cf. Appendix 3, Table 30.
85. Around 15 per cent. Ibid., Table 31.
86. Ibid., Table 30.
87. O. Blume, op.cit., p.23.
question of bonuses. (88) The other survey finds the most important issue and the issue which respondents most desire to be important to be identical. This issue is that of wage group classification and bonuses. (89)

The most important issues seem either directly or indirectly to be concerned with questions of material benefits, thus basically confirming one of Blume's main results. (90) In the chemical industry this certainly reflects the freedom of movement left for management in the larger and more profitable companies by the collective agreements. (91)

Despite the lack of detailed knowledge of the works council role or any degree of specific knowledge of the co-determination rights of the works council, (92) employees are basically satisfied that the works council had enough rights in order to carry out their task. At Agrochemie AG over 75 per cent of respondents were satisfied with the current rights of the works council (93) compared with below 60 per cent of a rather wider sample of chemical employees. (94)

88. E. Teschner, op.cit., p.140f. This survey compares a number of industries, one of which is chemicals, but there is only one chemical establishment in this part of the survey.

89. Landwehrmann and Albring, op.cit., p.82f. This survey covers five widely different chemical establishments.

90. O. Blume, op.cit., p.36.

91. This willingness on the part of management to negotiate with the works councils over material issue places works councillors who are usually also union officials in a paradoxical position. Such agreements weaken the position of the union whilst strengthening that of the works council. Most works councillors choose to strengthen their own position in order to ensure their own re-election. Interview BRV 1, Aug. '77 and H. Kotthoff, op.cit., p.78f.

92. cf. Appendix 3, Tables 40 and 41. This lack of knowledge was by no means the sole preserve of respondents uninvolved in workplace industrial relations. It even extended to many works councillors themselves.

93. cf. Ibid., Table 38.

94. Landwehrmann and Albring, op.cit., p.84. This compares with 61 per cent of a sample of BASF workers being satisfied with the provisions of the BetrVG 1952. Schumann et al., op.cit., p.198.
The support for the Works Constitution Act 1972 amongst trade union officers and works councillors is, however, by no means so great. Particular criticism was reserved for the extent of co-determination rights in the case of dismissal and the lack of co-determination on economic issues. (95) On the other hand, some local officials felt it was more important to exhaust all the rights under the present law rather than to fight for additional ones. (96) There is certainly considerable evidence that this is not done. (97)

As far as can be ascertained from the limited data available (98) the employees in the chemical industry are more or less satisfied with the way in which the works council fulfils its role. Limited criticism was expressed about the amount of contact between the workforce and the works council and there are isolated complaints of corruption. (99)

This generally positive evaluation of the works council must have a positive influence on the attitudes of trade union members towards trade unions since the Agrochemie AG study confirmed the common finding that

95. Interviews FTO 1, FTO 6, both Aug.'77; FTO 10, BRV 4, Sep.'77; BR 3, VL 3, Oct.'78. Also H. Kotthoff, op. cit., p.16f.
96. e.g. Interview BRV 5, Sep.'77. One lay officer even stated that "to give the works council any more rights would be like turning it into management." Interview VL 5, Oct.'78.
97. cf. H. Kotthoff, passim and especially pp.101-134.
98. Most surveys do not touch on this question for some reason. Hartmann feels that the omission of this area from Blume's study represents a fear that widespread criticism might have been revealed, something which would have been unpleasant for the trade union sponsors of the study. H. Hartmann, "Works Councils and the Iron Law of Oligarchy", BJIR., Vol.XVII, 1979, p.73.
99. Appendix 3, Table 33, Interviews VL 1, 006, 016, 038, etc. Oct.'78 and Schumann et al., op.cit., p.196.
there is little differentiation between the works council and the trade union on the shopfloor. (100)

Given the importance of the works council to shopfloor attitudes on unions, then union attitudes about the main tasks of the works council are of interest. The journal for works councillors in the Chemical Workers' Union placed particular stress in the following area after the last election: (101)

(1) exercising strict control over dismissals through full use of co-determination rights;
(2) not to see their role as that of mediator between employer and employees but as the representative of the employees;
(3) the relinquishment of the works councils' defensive role and to move onto the offensive by use of a carefully planned action programme; (102)
(4) the explanation of works council work so that employees can understand it.

The importance of the works council to the Chemical Workers' Union goes beyond this, however. The union's only real chance to recruit members is to co-operate with the works councils, (103) and this is the root of

100. This was often apparent during the time spent at Agrochemie AG. cf. O. Blume, op. cit., p. 23. Where a bad works council exists, this would equally have negative effects for the union, as do the limitations under which all works councils work.


the works councillors' power within the organisation. The source of this power is somewhat diverse. Firstly the works council is the only legitimate body which can negotiate directly with management. On top of this it enjoys a monopoly of information from management as well as preferential information from the union. Furthermore, the Works Constitution Act also empowers the works council to monitor the application of collective agreements and laws within the works, both areas where the union was more responsible originally for the regulations than the works council. The Act also provides the works councils with the necessary material support in terms of facilities (release from work, offices, secretarial and expert support, education courses) which are necessary determinants for the continuity of representation and professionalisation of the works councillors. Finally, there is no strong trade union tradition in the chemical industry. As a result of this monopoly of representation and the fulfilment of trade union tasks within the establishment the works council has a large influence on the extent of development of actual union representation - specifically lay officers - in the works.

The position of works councillors in the chemical industry is strengthened

104. Dzielak et al., op.cit., p.102f.
105. Ibid., p.114. During the course of investigation carried out by the author no dissatisfaction was expressed about the level of facilities which sometimes exceeded the legal requirements, such as by making a secretarially qualified works councillor the works council secretary - in effect an additional full-time works councillor. Interview BHR 15, Nov.'78. Few problems were experienced even in the time of Blume's investigation except in smaller establishments. O. Blume, op.cit., p.93ff.
106. Dzielak et al., op.cit., p.114. Similar conclusions may be found in H.-E. Treu, op.cit., p.22. The relationships between works councillors and lay officers are discussed in more detail below.
particularly through management policies of co-operation and negotiation with the works council. The economic development of the chemical industry and the inability of collective agreements to fully exhaust the room for negotiations regionally or nationally is of relevance in this connection. \(^{(107)}\)

The key position of the works council in the chemical industry for the union is reflected in the influence of works councillors on trade union policy and their strength at all levels of the organisation from the district to the national executive. \(^{(108)}\) In fact, the district committees are almost entirely controlled by the works councillors since this is the committee which above all others determines the direction of local union policy. Membership on this committee is crucial, therefore, to maintenance of power. \(^{(109)}\) The significance of the dominance of the works council over collective bargaining committees has been discussed elsewhere. \(^{(110)}\) The works councillors also have a considerable representation at National Delegate Conferences. \(^{(111)}\) Thus, it is possible for works councillors to exert extensive influence on union policy.

The domination of the local union apparatus by works councillors ensures that the majority of contacts between full-time union officials and workplace representatives involve works councillors. Full-time officers

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107. Ibid., p.39f.
108. Dzielak et al., op.cit., p.115. This seems to be a general phenomenon, cf. J.Bergmann et al., Vol.1., 1975, op.cit., p.303.
109. Interview FTO 18, Feb.'78. Since works council chairmen are often the most experienced and senior representatives it is logical that the District Conference should elect them to the executive. Interview FTO 6, Aug.'77.
110. cf. Chapter 4, Section (ii)a.
generally attend all works council meetings and there is constant contact by telephone between the district officials and works councillors. (112) In the light of this discussion the general association amongst the workforce between the works council and the union is quite understandable.

Nevertheless, these close connections between union and works council do not mean that the works councils always pursue union policies within their own establishments. On the contrary, in the larger chemical companies, (113) works councils are renowned for following policies which take account of the requirements of their own establishments. (114) Indeed, this type of action is required by the Works Constitution Act and the choice between "Betriebsegoismus" and union policy is one of the classic dilemmas for works councillors. (115) When management is prepared to make significant concessions to works councillors as is often the case in large chemical works, many works councillors feel they would be fools not to accept since they would be likely to endanger their own positions in this way. (116)

What type of relations develop between works councils and management in the chemical industry? There are a number of basic types of contact that

112. Interviews FTO 1, Aug.'77 and BRV 5, Sep.'77. Also, many statements at the Agrochemie AG case study works.

113. Perhaps with the exception of BASF, where a functional cooperation exists. cf. H.-E. Treu, op.cit., p.41f.

114. Such behaviour is known in German as "Betriebsegoismus".

115. The relationship between a low degree of union organisation in a workforce and the "betriebsegoistische" policies of its works council is quite logical, therefore. cf. H. Kotthoff, op.cit., p.78f.

116. e.g.: Interview BRV 1, Aug.'77. Examples of such concessions can be material benefits for the workforce or a cadre of plant representatives throughout the works. cf. Chapter 2, Section (ii). Treu sees this development as the only instance of the legal separation of workplace representation and union representation outside the workplace leading to the formation of a non-union representational cadre. H.-E. Treu, op.cit., p.40f.
can occur which influence the type of relations between works council and management and which depend to a certain extent on the structural organisation of the works council. (117)

The structural elements of the works council usually include a chairman, a deputy chairman, a works committee, specialist committees, the economics committee and joint commissions. Contacts can occur between management and any of these persons or groups of people as, indeed, management can meet the whole works council at one time. The legislation simply states that management and works council should meet at least once a month. (119) Evidence seems to indicate this is the approximate frequency of meetings between management and the whole works council. However, the importance of such meetings decreases with increasing size of company, (120) since in medium-sized companies contacts between the chairman and management are important whilst in the largest companies the committees and joint commissions carry out much of the work. (121)

Works councils generally lay down their own rules under which discussions and negotiations may be held between their own sub-organisations and management. In this way it may decide on which issues specific committees

117. The major determinant of this seems to be size of establishment and chemical sites are usually quite large. cf. H. Kotthoff, op.cit., p.8ff.

118. The size of this committee, which is in effect the executive committee of the works council varies from 5 to 11 depending on the size of the works council. cf. BetrVG 1972, Para. 27.

119. This took place at Agrochemie AG and at most other smaller sites visited and is also confirmed in H. Kotthoff, op.cit., p.8.

120. They are unimportant in sites with more than 600 employees, Ibid., Graphik Nr. 12.

121. Ibid., Graphik Nr. 13. These committees are of particular importance in the chemical industry. Numerous interviews and Ibid., Graphik Nr. 14, 15.
may take decisions without prior referral to the full works council or on what matters the chairman can come to an agreement with management. Such decisions together with the election of chairman, deputy and all committee members are generally taken at the initial works council meeting immediately after the election. (122)

In the chemical works studied in greater detail it was not permitted for the works council chairman to meet management on his own. (123) This seems to be a common means of preventing distrust developing between the body of the works council and the chairman. At Agrochemie AG meetings between management and the full-council had been introduced shortly before the study with a similar aim. These meetings were apparently successful, leading to an open exchange of information. (124) These findings are reflected in a general rejection of personal dealings between the management and chairmen in the chemical industry. (125) However, the same sample of respondents did not really consider that meetings between management and the full council were particularly appropriate either, (126) thus reflecting the strength of the committee system in the chemical industry.

In all but the smallest chemical establishments a large amount of works council work is carried out on committees. At Agrochemie AG there were

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122. Interviews BR 1, BR 5, both Oct.'78; BRV 15, BRV 18, both Nov.'78.
123. Interviews BRV 5, Sep.'77, BR 1, Oct.'78 and BRV 18, Nov.'78. However, in some larger chemical companies such contacts seemed to exist. BRV 1, Aug.'77.
124. Interviews BR 2, M 7, both Oct.'78.
125. H. Kotthoff, op. cit., Graphik Nr. 17. It is normally permitted for two works councillors, often chairman and deputy chairman, to meet management.
126. Ibid., Graphik Nr. 18.
four committees, at another company with around 1000 employees there were eight whilst the works councils of all the three largest chemical companies have around thirteen committees.\(^{(127)}\) The range of these committees is remarkably extensive covering such issues as personnel matters, training, safety, payment systems, canteens, employees' suggestions for improvements, etc.\(^{(128)}\)

These committees generally meet management responsible for the particular area concerned and if the committee has decision making ability, which is common in such areas as company housing, hardship funds, etc., then the committee is likely to have an equal number of works council and management members.\(^{(129)}\)

On the management side these committees are manned primarily from the personnel and social departments with various specialist sections covering their own areas of responsibility, together with safety engineers and similar experts as required.\(^{(130)}\) The works council manning which is determined at the initial meeting of the works council after the election may be decided according to the specialist skills of the individual works councillors.\(^{(131)}\) This leads to a sharing of the work load in a relatively even way and to a more effective handling of the subject matter.\(^{(132)}\)

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127. Interviews BR 1, Oct.'78; CM 11, Sep.'77; BRV 1, Aug.'77; BRV 5, Sep.'77 and CM 9, Nov.'78.
128. Numerous interviews and documents from Hoechst AG and Kronos Titan GmbH.
129. Interviews CM 12 and BRV 18, Nov.'78.
130. Interviews BRV 1, Aug.'77; BR 3, and BR 2, Oct.'78; CM 9, Nov.'78.
131. Interviews BRV 4, Sep.'77 and BRV 15, Nov.'78.
132. Thus the Hoechst AG works council which has 43 members, 20 of whom are full-time, shared the work load so that full-time works councillors were on 3.7 committees on average (max.7, min.2), whilst non full-time councillors were on 2 committees each on average. (max.5, min.1). Hoechst AG, breakdown of Betriebsrat, own calculations.
the other hand, it is possible for ideological splits or personal dislikes to influence the voting behaviour at the initial meeting so that particular individuals or groups do not receive the responsibility which their ability or mandate would entitle.\(^{133}\) This is probably unusual. One management respondent believed the composition of the committees to be very significant for:

"experts meet experts and carry out important tasks. It becomes a non-ideological forum and is one of the secrets of social peace." \(^{134}\)

Much detailed work is carried out on these committees particularly in preparation for meetings. At the meetings, the frequency of which can vary considerably, negotiations take place and compromises are agreed, so that either a decision can be taken or else a recommendation made to the works committee or works council for a decision.\(^{135}\) Much every day business is conducted between the works committee and the corresponding management organisation which is sometimes known as the personnel committee. This might be made up of senior personnel and production managers together with supporting staff.\(^{136}\) As far as negotiations between the works council and management are concerned, these are probably the most important bodies in the larger chemical companies.\(^{137}\)

According to the Works Constitution Act all companies with one hundred or

133. Interview BR 5, Oct.'78, and E. Gipperich et al., op.cit.
134. Interview CM 9, Nov.'78.
135. Such procedures seem to vary greatly from one company to another. Sometimes decisions can be taken provided they are unanimous, other issues are always reserved for either the works council or the executive board. Interviews BR 5, Sep.'77; BRV 16, and CM 9, Nov.'78.
136. Interviews CM 9, CM 12, BRV 16, all Nov.'78.
137. Interview BRV 5, Sep.'77. On workplace negotiations, see below.
more employees must have an economics committee.\footnote{138} This requirement is certainly not fulfilled although the number of large companies without such a committee, which is responsible for consultation on the economic state of the company,\footnote{139} is fairly small.\footnote{140} This committee is supposed to meet once a month but this frequency of meetings is very rare. Five meetings per year seem quite usual,\footnote{141} although by no means all companies have as many as four per year.\footnote{142}

Trade union full-time officials may not sit on the economics committee although the Chemical Workers' Union does employ two officers to advise lay members.\footnote{143} The works council may choose experts - often senior managerial staff - to sit on the committee and advise them, and this is not unknown.\footnote{144} In such circumstances a high degree of trust must exist between the senior staff concerned and the works council. However, in other cases the works committee assumes, more or less, the function of the economics committee.\footnote{145} Unless there are no senior staff who can be trusted, this type of policy is short sighted since it is unlikely

\begin{itemize}
\item \footnote{139} The Act lays down that the company must inform the committee of any issues which affect the employees interests in good time and in detail. Particular mention is made of the financial state, the production programme, rationalisation, changes in production methods, plant closures, etc. \textit{Ibid.}
\item \footnote{140} In a recent survey 70 per cent of chemical companies had an economics committee compared with 55 per cent on average. H. Kotthoff, \textit{op.cit.}, Graphik 21. This may well be a reflection of the size of chemical companies.
\item \footnote{141} Interviews BRV 1, Aug.'77 and CM 11, Sep.'77.
\item \footnote{142} In Südbaden 86 per cent of chemical companies held meetings of their economics committee. This compared with 64 per cent on average. H. Kotthoff, \textit{op.cit.}, Graphik Nr.22.
\item \footnote{143} Interview FTO 4, Aug.'77.
\item \footnote{144} Interview CM 14, Nov.'78. For the legal regulations, \textit{cf.} BetrVG 1972, Para. 107.
\item \footnote{145} Interview BRV 1, Aug.'77.
\end{itemize}
that many works councillors will possess the expertise to understand the economic data presented.\(^{146}\)

Although very few complaints were voiced about the degree of information provided by the employers to the works council in general or the economics committee in particular some doubt about this still remains.\(^{147}\) The depth of knowledge of works councillors which is certainly not ideal is also of relevance in evaluating such matters.\(^{148}\)

The committee system which operates as a result of the Works Constitution Act in a large percentage of chemical companies might be considered to constitute a major part of the formal system of industrial relations at the workplace.\(^{149}\) Much of the smooth running of workplace industrial relations in Germany, particularly in the chemical industry where this committee system is well established, must be accredited to the almost automatic solution of problems by what amounts to a bureaucracy created for this purpose.\(^{150}\)

However, parallel to this formal system there also exists an important informal system. Some respondents stated quite categorically that it was far easier to discuss problems and to find solutions to them with a small

\(^{146}\) On the qualifications of works councillors cf. H. Kotthoff, op.cit., p.67ff.

\(^{147}\) of. Ibid, Graphik 32, 33 and 34.

\(^{148}\) The inadequacies in this area were often revealed in the unstructured interviews with works councillors.

\(^{149}\) The other major part of the formal system are the negotiations carried out between the works council and management, only certain of which occur within the committee system.

\(^{150}\) Through the whole system of co-determination at the workplace many issues such as dismissals, job evaluation, pay problems, rationalisation, etc. are dealt with automatically. However, the efficacy of the system varies somewhat, cf. H. Kotthoff, op.cit., p.101ff.
group of senior works councillors. Small groups facilitated frank and open discussion. (151) In this way there is constant informal contact between works council and management quite independent of the formal discussions. "This prevents problems from building up and leads to a constant solution of problems and helps to foster a relationship of trust, ... together with a knowledge and understanding of your opponent." (152)

This statement also reveals the characteristic pluralist view of industrial relations in West Germany which emerged on many occasions. Although the two sides of industry see industrial relations in this light, in the chemical industry there seems to be a recognition of the validity of the other side's opinion from their point of view. This leads to co-operation, trust and an attitude of joint problem solution "since, above all, both sides want to reach agreement. The employers know that it is impossible to run a business in the long term without the agreement and co-operation of the employees' representatives. On the other hand, the works council is forced to make agreements since the employers control a whole range of privileges and benefits which they can award voluntarily but upon which the works council cannot insist (e.g. plus rate payments). Therefore the works council cannot maintain conflictual strategies in the long run since this would lead to disadvantages for the workforce as the employers would refuse to pay voluntary benefits." (153) This situation often leads to an informal exchange of

151. e.g. Interview CM 12, Nov.'78.
152. Translation of a statement in Interview CM 9, Nov.'78.
153. Translation of a statement in Interview FTO 18, Feb.'78.
concessions by both sides which enhances the possibilities of achieving agreement.\(^{(154)}\)

The system of the bureaucratic handling of a wide range of issues superimposed by an informal system which also functions to this end, and large pressures towards coming to agreement provide some explanation of the relative infrequency of overt industrial conflict at the workplace in West Germany.\(^{(155)}\) In the chemical industry, this system has operated under conditions of rapid economic growth and expansion over a period of many years. These economic circumstances have also enhanced the trend towards co-operation and agreement particularly since the collective agreements left scope for many companies to bargain locally. The peace obligation on the works council and the lack of close contact between council and workforce generally prevent the works council from forcing particular issues and this also increases the trend towards co-operation. Bureaucratisation of works council tasks also seem associated with aloofness from the workforce yet with efficient problem solution.

Over a number of years there has been evidence of entrenchment of works councils in their posts.\(^{(156)}\) Recently one commentator even suggested and subsequently argued that works councillors have developed an immunity from replacement by re-election via a professionalisation of their key members.\(^{(157)}\) Although it was necessary to introduce a number of other

\[^{154}\] Interviews FTO 9, Aug.'77 and CM 11, BRV 5, Sep.'77.

\[^{155}\] There is further consideration below of the lack of overt conflict when the role of the works conciliation committee (Einigungsstelle) is considered.

\[^{156}\] cf. O. Blume, op.cit., p.62.

\[^{157}\] H. Hartmann, 1979, op.cit. This article defends a previous claim that works councils are subject to Michels' Iron Law of Oligarchy.
factors (158) to fully explain the degree of entrenchment amongst works councillors, Hartmann summarised that:

"a high level of qualification amongst councillors goes together with large size of firm, superior efficiency of the works council, and extended tenure of the council chairman. A low level of skills, notably those transmitted in formal training, is associated with small firms, inefficiency in the council and reasonably frequent turnover amongst council chairmen." (159)

In the chemical industry, the works councillors seem generally to follow the first series of criteria (160) although crass counter-examples are sometimes met. (161) In Kotthoff's survey of five industries, works councils in the chemical industry were rated the second most efficient after the metal working industries. In addition to those factors listed above which have an influence on this efficiency the most important was the strength of trade union organisation in the workplace and the system of union representation which exists. (162) It is to these topics, therefore, that our attention is now turned.

158. These factors were management support for the works council - for an example from the chemical industry cf. Personalbericht Hoechst 1977, op.cit., p.56 - the development of organised support by the Vertrauensleute and the neutralisation of rival institutions - there are numerous examples of this in the chemical industry too, cf. H.G. Lang, "Gewerkschaftsausschlüsse in Hoechst - die IG Chemie statuirt ein Exempel," in O. Jacobi et al. (eds), 1978, op.cit., p.176ff.

159. H. Hartmann, 1979, op.cit., p.77. This statement is based on Kotthoff's research which has been cited on numerous occasions.

160. cf. H. Kotthoff, op.cit., especially Graphik 46, 47 and 52.

161. As at Agrochemie AG where one works councillor was elected without any prior experience of industrial relations or knowledge in this area. Interview BR 3, Oct.'78. Generally, works councillors should previously have served as lay officers before being put forward as candidates for the election. On selection of candidates in the chemical industry cf. Richtlinien für Betriebsratwahlen, op.cit.

162. H. Kotthoff, op.cit., p.131ff.
(ii) Workplace trade unionism.

Although the union density in the organisational area of the Chemical Workers' Union was high soon after the formation of the German Trade Union Confederation it began to decline quite rapidly so that by the middle of the 1960's it was around 50 per cent. During this period of time there was a vast expansion of chemical industry and a large increase in the workforce. Since the works constitution provides representation at the place of work and wage increases in the chemical industry have regularly exceeded average increases, there seemed to be little reason for employees new to the chemical industry to join the union. In this way, trade union traditions, which had not been strong in the chemical industry during the Weimar Republic, did not develop in the post-war period.

These developments were accompanied by a general trend towards centralisation and rationalisation of the organisational structure in the German trade union movement. Chemical Workers' Union policies on workplace representation must be seen in the light of these circumstances as an attempt to counterbalance these trends. In the main these policies

163. This discussion is limited to the Chemical Workers' Union since this is the sole union of particular importance. See above.

164. cf. Appendix 1, Table 2. The industrial union membership density at Agrochemie AG was around 90 per cent (Interview BR 1, Oct. '78) and that of the respondents 91 per cent (together with 4 per cent VAA, cf. Appendix 3, Table 63).

165. cf. Zahlen zur Sozialpolitik, 1979, op. cit., p. 7. Much of this expansion took place in the white-collar sector which has been traditionally hard for trade unions to organise.

166. Dzielak et al., op. cit., p. 537.


168. One particular solution to this problem was seen as collective agreements to ensure the rights and responsibilities of Vertrauensleute. To-date attempts to introduce such agreements in the chemical industry have failed. GB 72-75, op. cit., p. 372ff. For the arguments of the Metalworkers' Union in this context cf. M. Weiss, Gewerkschaftliche Vertrauensleute, Köln, 1978.
could be summarised as an endeavour to strengthen the local union organ-
isation and increase union membership through the development of a
system of workplace representation. The success of these policies has
been limited, however.\(^{(169)}\)

In the previous section there was some discussion of the dualism of re-
presentation at the workplace in Germany and the strength of the works
council system based on statute was considered. At the workplace the
Chemical Workers' Union is represented by a group of officials known as
Vertrauensleute, a term which covers a multitude of different groups\(^{(170)}\)
including the works councilors who are union members and the workplace
representatives who are elected by the union members and who will be
called lay officers.\(^{(171)}\)

In Britain one of the primary roles of a shop steward is to represent those
members who elect him.\(^{(172)}\) Although, as far as the German Chemical Workers
Union is concerned, lay officers are elected or at least ratified\(^{(173)}\)

\(^{169}\). For the numerical developments in this area see Appendix 1, Table 4.
Nevertheless, there is evidence that chemical workers still see
trade unions as extremely necessary, cf. Appendix 3, Table 17.

\(^{170}\). Other groups covered by this term are organised youth representa-
tives, representatives for handicapped persons, and plant repre-
sentatives so nominated. IG Chemie, Richtlinien für gewerk-
schaftliche Vertrauensleute, no place (Hannover), 14.12.1976,
Section I and "IG Chemie Beirat tagt in Essen: Anderung der
Satzung beschlossen", pressedienst, XV/24, 5.4.1979.

\(^{171}\). For the reasoning behind this choice of terminology cf.
D.R. Fesworth, "Lay Officers ...", op.cit.


\(^{173}\). Elections theoretically take place but often there is only one
candidate. Sometimes there are no candidates at all and a member
must be persuaded to take on the task. In such circumstances there
if often no election, just an informal agreement that x shall be-
come the lay officer. Interviews FTO 6, Aug.'77; VL 1, Oct.'78;
BRV 17, Nov.'78. Elections are only held in works with 150 or
more employees. On the election procedure cf. H. Kramer, "Was
bei der Wahl der Vertrauensleute zu beachten ist," Gewerkschaft-
liche Umschau, 4/79, p.5ff. In 1979 elections took place in
around 1050 works, with around 25000 lay officers being elected.
"IG Chemie-Papier-Keramik schliesst Vertrauensleutewahlen erfolg-
reich ab", pressedienst, XV/70, 6.1.2.1979.
by a group of union members\(^{174}\) for this purpose, this group representational role does not seem to exist in practice. At Agrochemie AG respondents considered themselves more to be the representatives of the trade union in the works and all the members in general rather than one group in particular.\(^{175}\)

One indication of this lack of group representational role is provided by the absence of re-elections\(^{176}\) if a lay officer is transferred to another shift or plant. This can leave a group without a representative and cause another to have a superfluity of them, since the transferred lay officer retains his post.\(^{177}\) As elections are currently held every four years, a group might be without a representative for sometime. This situation is likely to contribute to weakness in the trade union position within the works.

The Chemical Workers' Union specifies that there should be one lay officer per twenty union members.\(^{178}\) At Agrochemie AG, however, there was nearly double this proportion of lay officers whilst another works had approximately the proportion specified.\(^{179}\) Nevertheless, lay officers are rarely spread evenly through the workforce since union membership is lower in certain categories of employees, particularly white-collar

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174. Such a group might be a department, a shift, a plant or a particular occupational group.
175. Interviews VL 2 and VL 4, Oct.'78.
176. The guidelines do allow for the possibility of a re-election but leave this to the discretion of the local district Vertrauensleute-Richtlinien, op.cit., Section 1(2).
177. Interview ERV 17, Nov.'78, 031, M 8, Oct.'78.
178. Vertrauensleute-Richtlinien, op.cit., Section 1(5).
179. Interviews BR 1, VL 4, Oct.'78; ERV 17, Nov.'78.
staff and women. (180) This is one of the reasons for there being less
lay officers from these groups than there are from the workers. (181)

Despite the low number of lay officers in some groups of the workforce
the Chemical Workers' Union seems to have proportionally more than in
many other unions. (182) It might seem that such preconditions would
augur well for a strong lay officer organisation and effective represent­
tational work. However, this is rarely the case in the chemical industry
and the reason for this should be considered.

One significant cause can be found in the dualism of representation in­
herent at the workplace. As a result of legislative backing which pro­
vides recognition as well as a large range of legitimised activities,
the works councils are in a much stronger position at the workplace.
Provided there is co-operation between both bodies, (183) the strength of
the works council system need not necessarily be to the detriment of the
lay officers and the local union organisation. However, should the works
council view the lay officers as a rival organisation and decide not to
pass on information to them, or involve them, even indirectly, in neg­
oiations then the lay officers' position can be considerably weakened.
As one lay officer at Agrochemie AG put it:

"We don't really find out what's going on - I think they're bound by con­
fidentiality, (184) so they don't pass on information to us ... There's no
real relationship of trust." (185)

180. cf. Appendix 1, Table 3.
181. cf. H. Bayer et al., op.cit., IG Chemie Tables 1V-3,4.
182. Of the six unions investigated by Kotthoff in the Südbaden area,
the Chemical Workers' Union was the only one which had more lay
officers than works councillors. Ibid., op.cit., Graphik Nr.45a.
183. The vast majority of works councillors are union members.
   cf. Appendix 1, Table 5.
184. See Footnote 57 above.
185. Translation of a statement in Interview VL 1, Oct. '78.
The limitations of the representative role of lay officers were revealed by questions to respondents at Agrochemie AG on grievance handling. Not a single respondent stated that he went to his lay officer in order to seek aid for his problems. Furthermore, other surveys confirm that the lay officers are not important in this context in the chemical industry. It would, in fact, be difficult for the lay officers working in production to deal with a member’s problem promptly since the production system rarely permits an operator to leave his area of work because it is necessary to monitor the plant more or less continually. In addition, the level of manning, the size of the primary work groups and the isolated nature of many production jobs in the chemical industry also hinder the lay officer from becoming active in grievance solution. Approximately half of the workforce at Agrochemie AG might be considered to be in the type of job that makes it very difficult for their lay officer to offer immediate assistance.

One possible reaction of the trade union members to this set of technological constraints can be to elect their shift supervisor to be the lay officer. The reasons for this seems to be that the foreman is not required to work in one particular location, indeed, he must spend much of his time touring the plants talking to the operators and as a

186. For personal problems ca. 25 per cent turn to the works council and 38 per cent to management. For work problems ca. 10 per cent go to the works council and 83 per cent to management. of. Appendix 3, Tables 23 and 24.


188. Some indication of this is provided in Appendix 3, Table 39.

189. This situation was discovered at Agrochemie AG. It is impossible to say exactly how many of the lay officers were also shift supervisors but it was at least 10 per cent. It is uncertain whether this is a general phenomenon.
member of the management hierarchy he might well have the power to regulate grievances himself. A supervisor is also likely to have more experience and to be more highly trained. Both might be advantageous in the role of lay officer. This duality of function which is possible due to industrial unionism did not seem to cause a conflict of interests, since as one supervisor/lay officer put it:

"I do my job and outside work (my emphasis) on the side, I'm a lay officer. This shouldn't affect the firm, should it? ... No, I don't represent a work group. We're a sub-division of the union so that they know what's going on in the works." (190)

Were this lay officer to be deeply involved in workplace industrial relations then a duality of function as the immediate superior and representative of a group would be most likely to lead to a conflict of interests. Its absence provides an indication of the role of lay officers.

In the non-production areas, two situations are apparently typical. Generally the white-collar sections are poorly organised and representative activities are weak for this reason. (191) In the workshops, an area of traditionally strong union organisation, the lay officers are more able to carry out their function, as indeed are the works councillors. The reason for this is the way in which work is organised which allows for movement around the workshops and the whole production site. The effect of these different circumstances is illustrated in the following table.

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190. Translation of statement in Interview VL 2, Oct.'78.
Table 5.2
Satisfaction with representatives fulfilment of function by work group classification at Agrochemie AG.

<table>
<thead>
<tr>
<th></th>
<th>Maintenance Workers</th>
<th>Process Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lay officers</td>
<td>90%</td>
<td>62%</td>
</tr>
<tr>
<td>do job</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works Councillors</td>
<td>89%</td>
<td>54%</td>
</tr>
<tr>
<td>do job</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

It is likely that technological constraints on the work of representatives in the production area and more developed trade union traditions in the workshops contribute to these differences. Despite these differences, direct criticism of the lay officers was unusual, and most of it was centred on the lack of information passed on by them. There seem to be a variety of reasons for this.

First, workplace organisation in the production side is becoming increasingly synonymous with sparsely manned plants and small primary work groups. Also the noise level is often very high. These factors have the effect of making communication difficult. Next, technology limits the ability of lay officers to wander from one man to the next in order to disseminate information since he must do his own job. Third, lay officers

192. cf. Appendix 3, Table 11.
193. Interviews O16, O31, O36, O40, M 9, all Oct.'78. The passing on of information by means of discussion, explanation and distribution of trade union literature is supposed to be one of the main tasks of lay officers. Vertrauensleute-Richtlinien, op.cit., Section V(9).
194. In 1977 38 per cent of occupational diseases registered in the chemical industry were as a result of noise. BG Chemie, Jahresbericht '77, op.cit., p.31, own calculations.
are often kept rather in the dark about matters by the works council which has what amounts to a monopoly of information. Therefore, the lay officers do not have much information to distribute. A general lack of knowledge about the trade union, its structure and function further compounds these difficulties. Finally, a number of lay officers seem disinterested in fulfilling the post and simply do not do their jobs. Since many do not really want the job in the first place, this is perhaps not too surprising.

Despite this, the members generally felt that the union was aware of what their interests are, in other words, that the lay officers were passing information upwards, if not down to them. This does seem more likely, at least for the officers who attend meetings, although the greater commitment of lay officers sometimes leads to a somewhat inaccurate picture of members interests arriving at the union offices. However, there was greater scepticism about the primary interests of trade union officials. Around half of the Agrochemie AG respondents believed that some union officials always think of their own interests first whilst others do so occasionally. The feeling that human nature was responsible for this was expressed, but rather less often than at BASF after the September strikes.

195. Over 75 per cent of respondents at Agrochemie AG believed that the unions know the members' interests. cf. Appendix 3, Table 18. This compares with 84 per cent at BASF about ten years previously. Schumann et al., op.cit., p.228.

196. Interview FTO 16, Feb.'78.

197. It became clear that at Agrochemie AG trade union officials were understood by the respondents to mean works councillors primarily and also lay officers, rather than full-time officials. In this, the findings seem to differ from those in Schumann et al., op.cit., p.67f and 227.

198. cf. Appendix 3, Table 25.

199. Interviews M 4 and M 8, Oct.'78. For BASF, cf. Schumann et al., p.67f.
The guidelines for lay officers state that they should fulfil a number of other functions such as the organisation of new members, the collection of dues and the monitoring of the amount paid. However, in a works like Agrochemie AG with a low labour turnover and a high union membership density, the organisational function has lost its importance. Particularly in the larger chemical companies this is not the case, since the level of organisation leaves something to be desired.

The main reason for this was said to be an insufficient number of organisers in the vast spread of plants on such a site. However, the degree of effort of trade union organised works councillors at two of the main companies does not seem to be very great.

Traditional methods of dues collection have lost their importance in the Chemical Workers' Union since 1964 and some form of check-off system is generally in use. This was certainly the case at Agrochemie AG and although the check-off has many advantages for trade unions, it removes the need for regular contact between officers and the members. Such contact can be used for the exchange of information. It is common for the same level of dues to be paid by all the members in the

200. cf. Appendix 3, Table 61.
201. The membership density in 1975 at Hoechst was 35 per cent, at Bayer 39 per cent and at BASF 65 per cent. Projektgruppe Gewerkschaftsforschung, 1977, op.cit., p.111.
202. At Bayer, Leverkusen, there are about 500 individual plants. Interview BRV 1, Aug.'77.
203. Informal discussions.
204. cf. H. Bayer et al., op.cit., IG Chemie Table II-14.
works as opposed to the level which is specified in the rule book. (206) Even lay officers do not always seem to pay the correct dues, although they and works councillors are required to do so. (207) Most members are unwilling to pay the full level of dues since they do not think that they are likely to go on strike and since, in their opinion, the only reason for paying very high dues would be to ensure a high strike benefit. (208)

The rights and responsibilities of Vertrauensleute within the Chemical Workers' Union in the collective bargaining system have been discussed above. (209) The workplace representatives of this union have the most extensive consultation and information rights in the DGB, and they also have the right to elect the collective bargaining committees. These rights were increased after strong pressure from within the union as a result of their weakness compared with the works councils particularly during the 1971 chemical industry strike. It was also hoped that increased involvement of the Vertrauensleute would lead to a greater commitment amongst the officials for any industrial action that might occur and that such action and collective bargaining in general would be a more accurate reflection of membership wishes. It does not seem, however, that these aims have been achieved to any great extent.

206. This is 1 per cent of gross earnings, IG Chemie, Satzung '77, op. cit., Para. 10. In fact, at Agrochemie AG, a sum approximately 40 per cent lower on average was paid. Increases in dues cause much complaint but rarely lead to resignation. Interviews VL 1, VL 4, Oct. '78.

207. Interview FTO 6, Aug. '77 and Feb. '78.

208. Interviews VL 5, Oct. '78 and FTO 6, Feb. '78. Strike benefit is calculated according to the level of dues paid, cf. IG Chemie, Satzung '77, op. cit., Para. 27. At Agrochemie AG the amount of benefit paid would "only" have been 45 per cent of the median net income (Appendix 3, Table 60), as opposed to approximately 80 per cent if the correct level of dues had been paid.

209. cf. Chapter 4, Section (ii)a.
Meetings of the Vertrauensleute are held fairly regularly within the chemical industry although the frequency seems to depend on the works and the period of time between the meetings varies considerably with the annual rhythm of union affairs. Several meetings will probably be held prior to, during and after the annual wage negotiations. A district official is always present at the meetings, which are generally held in the evening after the day shift has finished work. Some companies do allow the Vertrauensleute to meet during working hours and plant representatives usually enjoy this privilege which is one way of ensuring a higher turnout at the meetings. The attendance at the meetings, which are often held in company rooms, varies according to the agenda and to the length of time that the lay officers have been in office. As this time increases enthusiasm seems to wane and attendance drops off.

210. At Agrochemie AG about 6 meetings are held per year, at another works visited 10 were held whilst Bayer has about 4-5 in the evenings and 2X30 department meetings in working time. Interviews BR 1, Oct.'78; BRV 17, Nov.'78 and FTO 9, Aug.'77. The guidelines only state that regular meetings should be held. Vertrauensleute-Richtlinien, op.cit., Section IV.

211. Interview BR 2, Oct.'78.

212. This is one reason for the relative infrequency of meetings since each official in the district to which Agrochemie AG belongs is responsible for about 6000 members in ca. 16 different works. GB 72-75, op.cit., passim, own calculations.

213. Interview BRV 17, Nov.'78.

214. In such circumstances the mass of more moderate officials are present as opposed to only the more politically active ones who are certain to attend most meetings. Interview FTO 9, Aug.'77.

215. Interview BR 1, Oct.'78. This respondent stated attendance was generally 70 per cent. The lack of complete attendance is reflected, however, in the repeated underestimation of the number of Vertrauensleute at Agrochemie AG. Several estimates were 50 per cent below the actual number. Interviews BR 3, VL 3, Oct.'78.

216. At the beginning at Agrochemie AG 75+ per cent attend but by the end it is about 30 per cent. Interview BR 2, Oct.'78. A more general statement claimed an attendance of 40-50 per cent. Interview FTO 1, Aug.'77.
In any case, it is never possible for all the lay officials to attend, since some will be on shift at the time of the meetings, and manning levels together with workplace organisation make it unlikely that an official could be spared from the plant, even if he were prepared to lose his wages for the duration of the meeting, as could happen if the foreman decided to dock them.\(^{(217)}\) Foreman/lay officers on shift certainly could not abandon their plants.\(^{(218)}\) There was general understanding amongst the workforce for the shift Vertrauensmann's problems in attendance which are increased by the distance many must travel for the meeting.\(^{(219)}\) The different attendance rates are probably also reflected in the assessment of the fulfilment of their tasks by the members.\(^{(220)}\)

Meetings are arranged between the district office and the chairman of the lay officers who runs the lay organisation in the workplace together with an executive committee the size of which depends on the number of Vertrauensleute.\(^{(221)}\) At Agrochemie AG the executive committee seemed to have no particular function, although it can have an important influence on the policies adopted by the lay organisation.\(^{(222)}\)

\(^{217}\) Interview VL 1, Oct.'78.

\(^{218}\) Shift attendance problems are analogous to those for works assemblies except that none of the production shifts has just stopped work so that the problem is exacerbated. See above.

\(^{219}\) Interviews Oil, 016, 020, 033, Oct.'78.

\(^{220}\) See Table 5.2 above.

\(^{221}\) At Agrochemie AG there were three on the committee (Interview VL 4, Oct.'78). Actually there should have been five given the number of officials. Vertrauensleute-Richtlinien, op.cit., Section III.

\(^{222}\) For the role of the executive committee cf. Ibid., Section VIII. For the role of one such committee in a strike situation and the effect of the strike on the subsequent structure of the committee cf. Dzielak et al., op.cit., p.177 and 444ff.
of works with a lay officials' executive committee is increasing although it remains, like the number with lay officers, quite small in percentage terms.\textsuperscript{(223)} There are sometimes a large number of works councillors on the lay officials' executive committee but some have decided that there must be a majority of lay officers on the committee.\textsuperscript{(224)} Occasionally works councillors are simply not permitted on the committee at all in order to ensure the independence of the lay officers from the works council and to counteract the works council's influence.\textsuperscript{(225)} There is a far greater degree of contact between union full-time officials and the executive committee, particularly in the case of the chairman who is elected by the committee. The executive committee is especially important in the larger works where it is very difficult for full-time officers to maintain contact with the whole body of the lay officers.\textsuperscript{(226)}

Matters discussed at the meetings of Vertrauensleute cover the whole range of trade union policies such as the drafting of union lists of candidates for elections;\textsuperscript{(227)} the election of delegates to a large number of representative bodies including the collective bargaining committees; debates on collective bargaining and recommendations for the level of demands to be made together with the preparation of works assemblies.

\textsuperscript{223} It seems certain that all sizeable works would have both lay officers and an executive committee. In 1975 31.7 per cent of works in the organisational area of the Chemical Workers' Union had lay officers and 73.7 per cent of these (23.4 per cent of all) had an executive committee. H. Bayer et al., op.cit., IG Chemie Table IV-5.

\textsuperscript{224} Interview BRV 17, Nov.'78.

\textsuperscript{225} Dzielak et al., op.cit., p.276f.

\textsuperscript{226} Interview FTO 6, Aug.'77.

\textsuperscript{227} Such as to the works council, the supervisory board, etc. (Personal observations).
This preparation of works assemblies which took place at Agrochemie AG and probably elsewhere is particularly interesting and deserves further consideration. It seems that the works council report to the assembly is discussed in advance by the Vertrauensleute and statements as well as questions from the floor are pre-planned.\(^{(228)}\) Although this is reminiscent of "rigging" the works assembly it could be an effective tactic for asking management awkward questions and for showing the works council in a good light. This would help their re-election but means, in effect, the subordination of the lay officers to the works council.

Very few lay officers at Agrochemie AG except the most senior ones claimed that they spent on average more than about one hour per month fulfilling their duties. This was sometimes supplemented by attendance of union courses in the weekend or evening.\(^{(229)}\) However, once more, such times are especially inconvenient for shift workers so that they often could not attend even if they wanted to. At Agrochemie AG most lay officers had attended one or two courses but frequently many years previously.\(^{(230)}\) There seems to be no solution to this problem unless a collective agreement is achieved which guarantees release from work for lay officers to take part in union training courses.

228. Interview VL 5, Oct.'78.

229. Such courses are provided by all the districts in the Chemical Workers' Union. They cover a large range of issues such as unemployment, labour law, collective bargaining policies, union organisation in the workplace etc. In larger districts courses are held for the lay officers or works councillors from specific works so that relevant issues can be covered. For example, cf. IG Chemie, Verwaltungsstelle Leverkusen, Bildungsprogramm, Winterhalbjahr 1978/79.

230. Interviews VL 1, VL 4, VL 5, Oct.'78.
A picture has emerged in which the lay officers do not appear to perform an important function in workplace industrial relations, although they are involved in the trade union bargaining machinery. Another measure of their importance would be management attitudes towards them. At Agrochemie AG one works manager summed up the general management attitude both here and elsewhere concisely:

"I have very little to do with them - I don't even know who they are and I don't even try to find out." (231)

This lack of contact between lay officers and management at all levels was apparent throughout the case study and it is indicative of the role of lay officers in the works.

There are numerous reasons for the weak position of lay officers in workplace industrial relations. As far as those lay officers who are employed in production are concerned the main reason can be traced to the technology of the chemical industry. Workplace organisation and manning levels make it difficult for the lay officers to be called in to settle grievances and for them to pass on information to their constituents. Shift work is associated with continuous process technology and it impairs the ability of lay officers on shift to attend trade union meetings and training courses. Thus these lay officers are hindered in the fulfilment of their functions by the technological constraints of the industry in which they are employed.

In white-collar areas, particularly offices, the union is poorly organised

231. Translation of statement from Interview M 7, Oct.'78.
and there are very few lay officers. In such groups, it is easier for
those lay officers there are to fulfil their function since they are not
restricted by their normal jobs in the way a production worker is. In
the workshops, a traditional union stronghold, evidence seems to suggest
that the lay officers function relatively effectively.

However, the degree of interest of lay officers in their post is generally
low and this could well be due to the low competence given to them to
deal with "real" issues, such as handling grievances and negotiations at
works level. Such issues remain the sole preserve of the works council
as a result of the Works Constitution Act 1972, and as one lay officer
said:

"Experience to date shows that we don't really need any lay officers at
all since the works council does everything." (232)

From the union point of view this is certainly not true but it is under-
standable why it might seem to be the case on the shopfloor. For,
despite the extent of rights and responsibilities of the works council,
the peace obligation hampers the mobilisation of the workforce by these
officials. On the other hand, lay officers are unaffected by such con-
siderations and so become very important in dispute situations. In the
chemical industry a healthy economic growth and the capital intensive
nature of the industry has usually enabled the employers to pay reasonable
wage increases without the trade union having to resort to strike action.
The 1971 chemical industry dispute revealed the importance of the lay
officers and the local union organisation in general but also their

232. Translation of a statement from Interview VL 3, Oct.'78.
inability on the whole to cope with the situation. This resulted in an increase of lay officers' rights and their involvement in collective bargaining.

Conflict sometimes arises between the works council and the lay officers. (233) This is often provoked by works council attitudes towards the lay officers which extend to a lack of co-operation and willingness to supply information. In the words of one works councillor at Agrochemie AG:

"The relationship is not so bad although the lay officers want to direct the work of the works council. This is not their job, nor is it their job to do the work of the works council. They should bring us their problems." (234)

This statement expresses the arrogance and elitism of many works councillors but also reflects the actual situation that the works council constitutes the centre of the system of representation of employees' interests at the workplace. This might only be challenged by a highly developed lay officers' organisation with a structure that enhances an exchange of information, co-operation and solidarity amongst its members. (235)

However, particularly on the larger sites, the works council requires the support of the lay officers in order to be able to carry out their

233. Here, the terms works council and lay officers are intended to mean the majority of these bodies. Conflict can, of course, also arise between minorities but this is generally less important. According to the guidelines, both groups are supposed to provide mutual support for each other. Vertrauensleute-Richtlinien, op.cit., Section VI.

234. Translation of a statement in Interview BR 1, Oct.'78. At one time it was hoped that the lay officers in the Metal Workers' Union would serve as watch-dogs over the works councillors. cf. D. Miller, op.cit., pp.337-340

235. Dzielak et al., op.cit., p.123.
own tasks effectively. The formation of a second power centre in the representational organisation in the workplace by the lay officers has generally been short-lived since in order to change the works council policies they are forced to become members of the works council themselves.

Relations between works councils and lay officers might best be described generally as "antagonistic co-operation" since both require the support of each other. Indeed, sometimes the lay officers receive a great deal of assistance from the works councillors:

"We give the lay officers confidential information, even from the supervisory board, since sitting on this board is a political activity and the information is necessary." (239)

Without such levels of support from the works councils the desired extension of the role of lay officers in the Chemical Workers' Union is probably doomed to failure. It is also important in this context that serious attempts are made to modify the system of plant representatives that exists in the major chemical works. However, such moves do not enjoy the whole-hearted approval of many works councillors, a very powerful group in the union, since it could lead to a diminution of their own power.

236. This is one of the main reasons for the works councillors fostering the development of plant representative systems when the union has been poorly organised. However, such systems often hinder the subsequent development of union lay officer organisations. cf. Protokoll 1976, op.cit., p.520ff and "Die Ergebnisse der 2. Bundesarbeitsstagung der IG Chemie-Papier-Keramik in München. Gewerkschaftliche Umschau, 6/1978, Dokumentation p. XIVf.
237. Dzielsak et al., op.cit., p.124.
238. H. Hartmann, 1979, op.cit., p.78.
239. Translation of a statement from Interview BRV 18, Nov.'78.
240. H.-E. Treu feels that attempts to date have failed. Ibid., p.76.
The ambivalent position of the union in the workplace becomes clear.(242)

It is crucial for the Chemical Workers' Union to have an effective organisation at the workplace. Because of legislative restrictions the works councils are unable to fulfil this role and therefore a strong system of lay officers is required. This explains the steps towards increasing the rights and involvement of this group in the early 1970's. However, on the other hand, many full-time union officials do not want to give the lay officers too many rights since this might endanger their long-term strategies which require the union to have a "mediator role." A very strong lay officer organisation would also be likely to imperil the position of the works council in the workplace.

(iii) Workplace bargaining.

The previous discussion of the role of the works council in the chemical industry has illustrated the multifarious and constant nature of the contacts that take place between its members and management.(244)

It has been seen that such contacts can be formal, for example on joint committees, and informal in character. In this way it can be said that bargaining is always taking place in some form between the works council and management. The more formal side of this system of bargaining is considered here in greater detail since it is the source of many of the "rules which govern employment."(245)

244. The role of management within the company and in workplace industrial relations has been discussed elsewhere. cf. Chapter 2, Section (iii)b.
245. H.A. Clegg, 1976, op.cit., p.1. Thus the section will concentrate on bargaining which is likely to lead to a works council agreement rather than bargaining over individual issues which are often regulated by the committee system described previously.
Workplace bargaining might be considered to be an extension of national and regional collective bargaining between trade unions and employers' associations. The importance of this level of bargaining has already been illustrated in the discussion of earnings in the chemical industry which showed that a large wage gap exists. The domination of this sphere of bargaining on the employees' side by the works council reflects the characteristics of the dual system of representation at the workplace in Germany. As a result of the Works Constitution Act 1972 this bargaining operates under a strict set of legal limits and is highly institutionalised in nature with the works council being forced to operate between the legal requirements, the expectations of the workforce, trade union policies and their own specific interests.

Although it has just been stated that the works council bargains on behalf of the workforce, the system is actually rather more complicated than this for negotiations can occur at a variety of levels. The level at which the negotiations are carried out depends on the importance and scope of the issue involved.

At the time of the investigations at Agrochemie AG there were nine works council agreements in operation. Of these nine agreements six had been signed by the company works council - e.g. the conditions of service agreement - and three by the council for the actual works at which

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246. cf. Chapter 3, Section (iii)e.
248. There are three possible levels - works, company or concern.
249. Arbeitsordnung. In order to maintain the anonymity of Agrochemie AG it is not possible to cite these agreements in the usual way.
the study was carried out. An example of this type of agreement is pro-
vided by bonus schemes for the bagging and loading section of the work-
force.

Due to the size of works councils and their impracticality, therefore,
in negotiations, the actual bargaining is usually conducted by the works
committee (250) at whatever level. In such cases the decision on whether
to accept a particular agreement will usually be taken by the full works
council. When the decision lies with the company council — on which the
works councils from all the individual establishments are represented —
then time is normally allowed for the matter to be discussed in the
individual councils. (251) Should any particular works council then feel
that its interests have not received the necessary consideration then
its representatives on the company council must make this point and
attempt to get the council to modify its stance. (252)

At Agrochemie AG the vast majority of works council agreements are signed
on behalf of management by the executive board. A small number of un-
important agreements can be made by local management provided that the
amount of money involved is small. The locus of such powers of decision
within the management hierarchy will undoubtedly vary from company to
company. However, here local management were not even able to take on
new labour without the sanction of the central personnel department. (253)

250. In intermediate sized companies negotiations are sometimes con-
ducted by the full-time works councillors of whom there are a
small number. Interview ERV 15, Nov.'78.

251. Such occasions may also be used to consult with the union lay
officers although it is not clear how often this occurs.

252. Interviews BR 1, BR 3, M 7, Oct.'78. On the company works
council cf. BetrVG 1972, especially Paras. 47 and 51.

253. This decision was made by the executive board member responsible
for personnel matters and often took several months, thus
causing great inconvenience. Interviews M 2 and M 7, Oct.'78.
In the larger chemical companies the personnel department seems to be responsible for negotiations with the works council and for the preparation of agreements. These agreements would subsequently be ratified by the executive board if found to be satisfactory. Similar consultation to that in which the works council engages, occurs on the management side to ensure that site managers have no violent objections to the potential agreement.

The negotiation process itself seems to be relatively informal in nature as a result of the relationship which develops between the two sides. Frequently the works council is required to take the offensive and make a case for an agreement on a particular issue to management. The following statement from a works councillor in the chemical industry illustrates that the case may be put in a variety of ways depending on the type of issue involved.

"I refuse to negotiate solely according to the laws. We demand, desire or request - there are these three categories. Then it's up to the other side to prove that it's unfair, that we don't need it or that we're not doing it."
After the works council has put its case then there is normally a detailed discussion of the problem which will most probably be interspersed by meetings for internal consultation on both sides. This may involve referring to the trade union or to the employers' association for advice.\(^{259}\) In this way negotiations are usually very protracted, indeed on certain issues they may last for several years, particularly when complicated matters or principles are involved.\(^{260}\)

One reason for negotiations often lasting such a time is that the works council "doesn't have many means of exerting pressure on management. Both sides tend to rely upon the legislation. We normally negotiate until we reach agreement but this can take years."\(^{261}\)

Some works councils - usually ones that work closely with the lay officers and which have good lines of communication to the workforce - do try to put as much pressure as possible on management if the negotiations do not make much progress.\(^{262}\) In such circumstances spontaneous stoppages are not unknown, often with the secret support of the works council.

However, other works councils, particularly those in the larger chemical companies, choose to see themselves as a mediator between the interests

\(^{259}\) Interviews CM 12, BRV 16, Nov.'78.
\(^{260}\) At one chemical works visited the negotiation of the disciplinary procedure had taken seven years. Interview BRV 18, Nov.'78.
\(^{261}\) Translation from Ibid.
\(^{262}\) This experience can then be put to good use should dispute situations develop as a result of collective bargaining. Dzielak et al., op.cit., p.347.
of the workforce and the management. In any case the mutual dependancy between works council and management, which has been facilitated by the economic strength of the chemical industry and the collective agreements covering large regions, ensures that the two sides cooperate with each other.

Employees in the chemical industry remain, nevertheless, fairly satisfied with the degree to which the works council puts the workforce's case to management. At Agrochemie AG less than 10 per cent were dissatisfied with the works council's determination to represent their interests although the same question revealed a greater dissatisfaction at BASF some years ago. At the same time, however, quite a considerable percentage of respondents at Agrochemie AG did not know how works council agreements were negotiated although most read them when they were posted on the notice boards.

Before considering further the means of bringing about agreement when the negotiations do not provide a solution, some indication will be given of the range of works council agreements that exist in the chemical industry.

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263. Ibid., p.348. E. Teschner, op.cit., p.94. Kotthoff's data is somewhat contradictory. Ibid., Graphik Nr. 49-55 per cent of works council chairmen in the chemical industry considered that the works council is more on management's side than on the side of the workforce. However, Graphik Nr. 48-82 per cent of them believe that the works council should not be a mediator between the two sides.

264. cf. Ibid., Graphik Nr. 27.

265. cf. Appendix 3, Table 37.

266. 27 per cent. Schumann et al., op.cit., p.197. Other surveys seem to have avoided this question.

267. cf. Appendix 3, Tables 26 and 27. There was quite a high level of correlation between the basic knowledge of the negotiation process and professional training (Table 58). Kendall's correlation coefficient was =0.3147 which was significant at the 0.1 per cent level. Furthermore, works council agreements were only mentioned by 23 per cent of the works sample when questioned on works council roles. cf. Table 30.
industry. It is actually possible for either side to request negotiations and an agreement on almost anything but there is no way that either side can be forced to accept such an agreement. (268) One management respondent at a large chemical company claimed that the majority of works council agreements at that company were of the voluntary type. (269)

At Agrochemie AG five out of nine of the works council agreements in force at the time of the study influenced the level of income of some or all the employees in the works. Most were bonus payments but one provided extra holiday for shift workers (together with the additional holiday pay) whilst another dealt with payments of travelling expenses. Although the cost of the extra holidays could not be quantified from the data available, the other four agreements amounted to 4.5 per cent of the gross wage bill at the time of the study. (270)

The other agreements at Agrochemie AG covered such matters as time and method of payment of wages, times of work and the major agreement on conditions of service. This latter agreement is of considerable importance and can be found in some form in the vast majority of companies. (271)

No general survey was made of conditions of service agreements in the chemical industry. However, those which were studied had a very similar

268. On voluntary works council agreements of. Fitting et al., op. cit., p.668ff.
269. Interview CM 9, Nov. '78.
270. This information was provided by the personnel department. On the legality of monetary works council agreements of. Fitting et al., op. cit., p.600f.
271. No company visited was without one although this does occur sometimes when renegotiation takes longer than expected. If the issue concerned is one where the works council has full co-determination rights then a post-contractual obligation exists. Ibid., p.599.
form and some details of one of these agreements (272) are given here to provide an illustration of them. The introduction of the agreement provides an interesting insight into the ideology of the works constitution:

"Management and works council have signed the following agreement on the basis of mutual trust for the good of the company and its employees, to keep the peace at work and to ensure an orderly maintenance of work." (273)

This agreement has twelve major sections and comprises a booklet of twenty-five pages. The agreement covers the conditions for commencement of employment, probation; general rights and duties arising from the contract of employment and including a basic grievance procedure; time at work and periods of absence; time and method of payment; holidays and sickness; general rules of behaviour, accident prevention; conditions of work for trainees; a suggestion scheme; a disciplinary procedure and conditions for cessation of employment. Further details cannot be given in a concise way. However, some general trends which emerge are constant reference to the regulations of the works constitution and other statutes, as well as collective agreements. The conditions of service might be seen, therefore, as providing rules for the application of these regulations and guidelines for many of the circumstances which can arise during employment.

The grievance procedures laid down in such agreements are rather general,

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providing a basic right of complaint and a selection of persons to whom the grievant may turn. This choice normally includes management - initially the immediate superior - and the works council, although occasionally the personnel department may be specifically mentioned. (274) Sometimes management undertakes to inform the works council of any grievances brought to them unless the grievant specifically disallows this. (275) Many chemical companies also reserve the right of employees to take their grievances as far as the company executive board if no solution can be found with more junior management. (276)

Most works councils and management also agree to try to resolve all problems internally before resorting to external procedures for grievance solution such as the works conciliation committee, and the labour court except in unfair dismissal cases. (277) This regulation reflects a general unwillingness in the German chemical industry for external involvement in disputes. This rejection of third party intervention was found in the joint conciliation procedure (278) and in attitudes towards the utilisation of the works conciliation committee. (279)

Some companies go so far as to create their own joint committees for the solution of grievances which are supposed to take precedence over

274. As at Agrochemie AG.
276. At Agrochemie AG and Interview GM 9, Nov.'78.
278. cf. Chapter 4, Section (iii)b.
279. Many interviews, e.g. FTO 18, and ER 1, Feb.'78. This is one of the main reasons for the infrequent use of conciliation committees in the chemical (and metal working) industries. This committee is considered in greater detail below.
the works conciliation committee. These committees which are composed of an equal number of works councillors and managers decide issues by simple majority. Although used infrequently, they do solve disputes which would otherwise have required third party intervention to resolve.\(^{(280)}\)

Although such formal grievance procedures exist their usage seems slight, at least at Agrochemie AG, where this matter was considered in some depth. There was a considerable lack of knowledge on procedures even amongst lower management to whom it seems the majority of the workforce turn when they have problems.\(^{(281)}\) The ability to go either to management or the works council in order to settle grievances is taken for granted and not treated as a part of the formal grievance procedure which itself might be seen as an extension of the legal provisions and procedures.

The Works Constitution Act 1972 provides an institution for the regulation of disputes between the works council and management. Such a dispute may be an impasse in negotiations which, of course, cannot be resolved through the use of industrial action as a result of the peace obligation.\(^{(282)}\) The Act distinguishes between compulsory and voluntary

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280. Interviews BRV 5, Aug.'77 and BRV 13, Oct.'78.
282. Some reference has already been made to this body which has been translated here as a works conciliation committee. The legal provisions may be found in BetrVG 1972, Para. 76. Also cf. H.J. Bischoff, Die Einigungstelle im Betriebsverfassungsrecht, Berlin, 1975. The information presented here on works conciliation committees in the chemical industry was prepared by the author as a part of a comparative investigation of conciliation and arbitration in West Germany and the United Kingdom. The research on West Germany is being directed by Karl Koch at the University of Surrey and is financed by the Federal Trust for Education and Research. The author gratefully acknowledges this support which enabled him to conduct discussions with twelve respondents directly on the issue of conciliation in the chemical industry. The data presented here is based primarily on these interviews and other information collected during the study. The official research report is forthcoming.
works conciliation committees. The latter occur most infrequently and may only take place if both parties request its formation and agree to abide by its ruling.

A decision arrived at by the compulsory procedure on the other hand, has the status of a binding works council agreement. Under the compulsory procedure it is possible for the management or the works council to demand that a works constitution committee sit to resolve the disagreement between them on a total of eighteen specific issues.\(^{283}\) In effect, the works conciliation committee is responsible for deciding disputes over interests whilst the Labour Court has jurisdiction for disputes over rights as well as considering appeals about the decision made by a works conciliation committee.\(^{284}\)

Although the law provides for permanent works conciliation committees to be formed, this is unusual for the Chemical Workers' Union and the chemical employers' associations reject their formation as unnecessary and advise their members accordingly. Works conciliation committees are formed, therefore, as they are required.

The committee is composed of an equal number of assessors from the employers and the works council together with a neutral chairman. Should

\(^{283}\) cf. Appendix 1, Table 16. In theory the works conciliation committee could deal with any unresolved issue arising from the Works Constitution Act but excluding matters originating from collective agreements and issues falling within the jurisdiction of the Labour Courts.

\(^{284}\) Either side may appeal within two weeks if it feels that a mistake has been made in the procedure, that the decision reached is outside the range of competence of the committee or if it considers the decision unreasonable. Challenges are unusual and rarely succeed.
the two sides be unable to agree on these issues then the matter is referred to the Labour Court which makes a binding decision.\(^{(285)}\)

Exhaustive empirical data on conciliation committees does not exist for the chemical industry or for any other sectors. Nevertheless, a number of limited surveys have been carried out\(^{(286)}\) and their results are basically comparable. In the vast majority of cases the chairman chosen for the works conciliation committee is a labour court judge or someone with legal training. Respondents felt that these judges, whilst not necessarily neutral, would possess sufficient knowledge to ensure that the procedure was adhered to closely. The chairman may well either be responsible for inducing the parties to come to agreement voluntarily or else he may have to decide to support one side or the other to resolve the dispute. Hence, the choice of the chairman is of considerable importance. In the chemical industry examples are known, however, of chairmen without legal qualifications. Occasionally professors, economists or other authoritative personages, such as a work study expert in a job evaluation case, are selected.

In the chemical industry there are generally three assessors from either side. The works council might be represented by the works council chairman, an expert on the subject from the council and a union advisor who

\(^{285}\) For the procedure cf. Appendix 1, Table 17. The importance of legal institutions in industrial relations is well illustrated by the position of the Labour Court in this procedure.

\(^{286}\) By the German Trade Union Confederation (1976), the Chemical Workers' Union (1976) and from IG Metall, Geschäftsbericht 1974-1976, Frankfurt, 1977, p.358.
may well be a lawyer. The company would normally nominate senior personnel managers and company lawyers together with a representative of the employers' association if a union official is present. Any of these personalities could put the case to the committee for their respective side. Indeed, in practice there is little differentiation between assessors and party representatives once the conciliation committee has begun to consider the issue. This informal atmosphere is enhanced by the knowledge on both sides that the committee must reach a decision somehow and that obstructive attitudes would only make the task more difficult. Very senior managers from the executive board are rarely involved in the conciliation procedure although the personnel director "would direct his puppets from the background." (287)

Once the chairman has called the conciliation committee together the issue is put forward from the point of view of both sides and discussed in detail. It is quite possible that the chairman will separate the two parties and try to mediate between them and so bring about a voluntary agreement.

According to the provisions of the Act:

"The works conciliation committee shall make its decision by a majority vote after oral proceedings. The chairman shall not participate in the initial vote. In the case of a tie the discussion shall be resumed and the chairman shall participate in the second ballot. Decisions of the works conciliation committee are to be recorded in writing, signed by

287. Interview BRV 12, Nov.'78.
the chairman and distributed to both employer and works council."

However, in practice, either the parties come to a voluntary agreement or else the chairman has to impose an agreement - he does this by taking side with one of the parties in the second ballot. Indeed, a threat to do this may induce a compromise solution. Assessors from one side do not vote with the other side in the first ballot since this would mean the end of their career either in management or as a representative of the workforce. Once there has been a tie in the first ballot the committee moves very fast to the second vote. Although it is not possible to support statistically, it seems that voluntary agreement is more common in the chemical industry than agreements imposed by the chairman. Such an agreement is also far preferable to both sides and this provides motivation for them to reach an agreement.

The role of the works conciliation committee can only be understood by taking the broader context of workplace industrial relations into consideration. The Works Constitution Act can be seen as an instrument for the prevention of overt industrial conflict at the workplace and the conciliation committee is an integral part of this system.

In the course of our investigations it became clear that the frequency of usage of works conciliation committees as a means of resolving industrial conflict is remarkably low when the range of possible issues

is considered. (289) It must be concluded, therefore, that the vast majority of works council agreements are established in the normal course of negotiations between management and works council.

Nevertheless, the works conciliation committee certainly has a greater importance than might be suggested by a simple consideration of its absolute frequency. The reasons for the infrequent use of the works conciliation committee are complex but deserve some brief consideration here. The rejection of third party involvement in labour relations is particularly strong on both sides of the chemical industry and certainly accounts in part for the rarity of this form of dispute settlement. Furthermore, the need to resort to a works conciliation committee for the resolution of a dispute is seen as a failure of the parties to deal with their own problems (290) and to be increasing the level of conflict considerably and so arouses public interest in internal works procedures - an unwelcome occurrence. Compromise, furthered by the ethos of the works constitution, is generally preferable to both sides than this level of conflict.

In addition, conciliation awards are sometimes regarded as a test case which can be subsequently applied in other companies. This can lead to a form of "case law" as it is understood in Britain and may account for the reluctance of many employers to use the conciliation committee. This

289. The DGB found that around 700 disputes were dealt with by a conciliation committee between 1972 and 1975. Letter dated 9.12.1976 from DGB, Abt. Arbeitsrecht to the Bundesministerium für Arbeit und Sozialordnung. For the same period of time there were 117 cases in the organisational area of the Chemical Workers' Union where over 3000 works councils exist. IG Chemie survey, op.cit.

290. As has been seen above a whole bureaucracy exists in the larger works to carry out this task.
reluctance on the employers' part is undoubtedly increased by the high
costs which can be involved in a conciliation case, the larger share
of which the employer has to meet. (291)

It is uncertain whether there is correlation in the chemical industry
between the incidence of works conciliation committee and company size.
However, it does seem that the larger companies resort far less fre­
quently to this committee than do medium sized firms, which are perhaps
run by a single manager or owned by a single family. This type of com­
pany still often resent their loss of authority as a result of the in­
stitution of the works council. In very small companies the works council
may simply not be effective enough to insist upon the establishment of
the conciliation committee. Works council weakness is, in fact, another
factor of the low incidence of works conciliation committees.

Whilst under the Works Constitution Act 1952 the primary issues of con­
ciliation committees were payments by result and working times, (292) the
new extended regulations and the increase in works council rights have
altered the committee's locus of activity. Under the present provisions,
it seems that about half of the issues to come before the works con­
ciliation committee are concerned with social compensation plans. (293)

291. Costs in excess of DM 100 000 are not unknown. The main cost
arises from the chairman's fee which is assessed according to
the value of the issue to be resolved. Assessors also receive
fees unless they are part of the company. Recently the NEC of
the Chemical Workers' Union and the Arbeitsering agreed that union
representatives should not demand fees. This agreement was widely
rejected within the union since it was felt that conciliation cases
should be made as expensive as possible for the employer thus in­
ducing him to accede to works council demands.


293. All surveys to date have given this result. Sozialpläne, BetrVG.
1972, Para.112. Such plans have the character of a works council
agreement. On the question of social compensation plans in the
In essence this is a dispute between management and works council over the level of redundancy payments. (294)

The different economic conditions which have prevailed in West Germany since 1974 have certainly been a major cause of the frequency with which redundancy has become an important issue. Since the amount of money involved in such social compensation plans is usually extremely high, the employer may feel that his potential gain far exceeds the likely cost of the conciliation committee. The works council, on the other hand, is unlikely to be awarded less than the employer has offered in the prior negotiations. Whilst the works council lacks genuine co-determination rights on the question of redundancy, it can make it as expensive as possible for the employer and as painless as possible for the employees through obtaining a good social compensation plan - often with the help of a conciliation committee.

In the chemical industry no other issues are considered to a similar degree by the conciliation committee although payment by results and working times remain relatively important. (295) It seems, then, that the works conciliation committee is used to resolve questions in which a great deal of money or basic principles are involved. Sometimes, the works council may also call for a conciliation committee for tactical reasons. Should elections be approaching it may want to demonstrate to

294. Since the initial decision to make employees redundant is considered under the Works Constitution Act 1972 to be an economic one, the works council only has rights of information on it. BetrVG 1972, Para.106.

295. IG Chemie survey, op.cit.
the workforce that it is representing their interests to the fullest extent possible. On the other hand, it is often useful in negotiations for the works council - and to a lesser extent for management - to threaten to establish a conciliation committee to resolve a dispute. This threat is particularly credible if either side has previously been prepared to use this procedure.

The existence of the provisions for resolving disputes by the works conciliation committee is crucial to the maintenance of peaceful industrial relations at the workplace since it deals with a number of potentially explosive issues. In addition both parties are aware that the other side may use it should they be unwilling to compromise in negotiations and it therefore enhances such compromise solutions.

Some indication of the potential importance of the labour courts in the regulation of disputes at the workplace is provided by the extent of revisions to the Labour Courts Act required by the introduction of the Works Constitution Act in 1972. However, this legislation has now been in force for eight years and a large number of such disputes which are mainly concerned with rights have meanwhile been clarified.

As a result of this the labour courts are only rarely used in the chemical industry to solve disputes. The courts do seem to have

296. cf. Fitting et al., op.cit., p.848ff.
298. Similar factors to those above, but particularly the rejection of third party intervention in disputes, seem to be relevant when considering the reasons for this. Interviews CM 11, Sep.'77; CM 8, BRV 18, Nov.'78.
The role of industrial action in the support of workplace issues has not been considered systematically for the chemical industry, although Dzielak et al. do mention some examples. They find that experience locally of this type of action is very important when the workforce is called out in support of a union wage claim.\(^{(299)}\) However, either these disputes are not reported by management to the authorities or else they are so small as not to be included in federal strike statistics for there has, officially, been no industrial action in the chemical industry for a number of years.\(^{(300)}\) The mobilisation of the workforce by the works council is expressly forbidden in the Works Constitution Act and could lead to the dissolution of the council.\(^{(301)}\) Such occurrences are extremely rare, and when they do happen the union is placed in the inenviable position of not being able to support the strike because it is illegal and to support it openly would risk having to pay damages to the employer.\(^{(302)}\)

Workplace bargaining in Germany takes place within a highly institutionalised legalised system. It covers a very wide range of issues which influence not only the conditions under which the employees work but also their level of earnings. Workplace bargaining plays, therefore, a

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299. Dzielak et al., op.cit., p.347f.
300. The last mention of the chemical industry in federal strike statistics was in 1972. Statistisches Jahrbuch 1974, op.cit., p.151. Furthermore, the use of industrial action is often rejected by a large number of employees in the chemical industry. cf. Appendix 3, Tables 13, 14, 15; E. Teschner, op.cit., p.135ff and Schumann et al., op.cit., p.218f.
302. Such problems were experienced at Michelin in 1978.
significant role within the system of industrial relations. In particular it strengthens the mutual dependancy of works council and management to adopt concessionary solutions in the regulation of issues at the workplace.

(iv) **Conditions of work and job satisfaction.**

The diversity of the chemical industry has been discussed previously and it was seen that generalisations about the industry and the types of work undertaken should be avoided. The limitations imposed upon this study makes a consideration of conditions at work and job satisfaction particularly difficult. It was decided that a limited duplication of some of Fürstenberg's investigation of the social position of chemical workers\(^{303}\) might provide some additional insights into these questions as well as some more current data.

Fürstenberg claims that work in the chemical industry does not lead to alienation since most employees have some degree of influence on the way in which they carry out their work. Whilst the technological process is seen as a major determinant of the way that work is performed, management style also has a large effect on the degree of autonomy at work.\(^{304}\) The validity of these conclusions was reconsidered within the confines of the Agrochemie AG case study.

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303. This investigation was carried out in 7 different plants during 1966 and covered 601 chemical workers. A wide range of production technologies were incorporated too. F. Fürstenberg, op.cit., p.13ff. The different nature of this survey from the one undertaken at Agrochemie AG may, however, account for some of the different results.

304. Ibid., p.213ff.
Some indication of the variety of jobs in a chemical works is provided by job functions of the respondents. It is possible to summarise some of the basic characteristics of the main categories of jobs. This is important in trying to find an explanation of the influence that job breakdown has on attitudes, job satisfaction and a variety of other variables.

Process work is basically non-manual in nature except for a small number of jobs within the production system and except for short, sometimes very intense periods of manual work during cleaning and maintenance periods. Normally the main tasks of the chemical process worker are to ensure that the plant is functioning in the way required for a specific operation. This supervisory control may involve the use of physical checks - dials, valves, levels, etc. - or of simple chemical analysis. It is likely that the job instructions leave a certain amount of flexibility in the way that the individual operator actually carries out the checks provided that the safety regulations are complied with.

305. Of Appendix 3, Table 1. Due to the disproportionate stratified nature of the works sample, the proportions of the various groups interviewed do not correspond to those on the actual workforce. The actual workforce structure was approximately:

<table>
<thead>
<tr>
<th>Category</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Process/Packing</td>
<td>42%</td>
</tr>
<tr>
<td>Craftsmen</td>
<td>20%</td>
</tr>
<tr>
<td>Laboratories</td>
<td>5%</td>
</tr>
<tr>
<td>Admin. &amp; Management</td>
<td>20%</td>
</tr>
</tbody>
</table>

306. The social background of the respondents seems to be closely associated with the jobs they perform as might be expected. This was particularly true - chi-squared association at 0.0 per cent level - of father's profession (Appendix 3, Table 57), schooling (Table 56), training (Table 58) and age (Table 53).

307. There was a far higher awareness of safety regulations than job instructions at Agrochemie AG and this contrasts strongly with Fürstenberg's results. Of Appendix 3, Table 2. These differences are difficult to explain but probably result from a number of factors such as differences in work autonomy, increased safety training, changes in safety legislation and public debate of safety in the chemical industry. Of Koch and Vahrenholf, "Chemie: Das unheimliche Risiko", Article in three parts, Stern, 7.9.1978, pp.66-77; 14.7.1978, pp.66-76; 21.7.1978, pp.120-128. The case study was carried out within a month of these articles appearing.
to be the main reasoning behind Fürstenberg's rejection of alienation amongst chemical workers.

Each operator tends to have his own sphere of responsibility in a working place that may well be quite remote from other operators since central control rooms were not a feature of workplace organisation at Agrochemie AG. (308) The following statement illustrates this point although it is a rather extreme example:

"I'm usually on my own in a plant that is about 100 metres long and 25 metres wide. I have to move around doing the checks ... However, I can't leave the controls - there are no breaks so we have to work straight through and eat as we work." (309)

The main consequence of this form of workplace organisation is isolation from other workers and representatives. Fürstenberg has hypothesised that these circumstances together with rapid technological change are likely to demand individual rather than collective reactions on the part of the workforce. (310) This seems to be supported by evidence at Agrochemie AG where there is a greater rejection of strike action amongst process workers than amongst craftsmen. (311) Furthermore, it seems likely in the light of evidence from Agrochemie AG that shift work,

308. For an indication of the size of primary work groups cf. Appendix 3, Table 39.
309. Translation of a statement from Interview VL 3, Oct.'78.
310. F. Fürstenberg, op.cit., p.228.
311. Thus only 30 per cent of process workers were prepared to strike as a last resort compared with 50 per cent of craftsmen. Alternative phraseology for this question which stressed the economic consequences of strike action produced similar results. In this case no process operators were prepared to strike whilst 20 per cent of craftsmen were. cf. Appendix 2.1.1, questions 14 and 22. It is not suggested, however, that these are the only factors which could cause this. Different backgrounds (70 per cent craftsmen from industrial background compared with only 40 per cent of process workers) and the ideological differences which might result could also be important, for example.
which is inseparable from chemical process technology, increases this isolation and contributes towards less efficient work by the operators' workplace representatives.

On the other hand, there seemed to be an awareness of the technological interdependence of the various plants and sections so that "if one person leaves his place the whole plant can be messed up."(312) This awareness of individual responsibility may well have positive effects on job satisfaction and other attitudes such as commitment to the company.(313) Awareness of the size of responsibility and the need to prevent accidents or waste could, however, lead to mental stress for the process workers.

It is even more difficult to generalise about the type of work undertaken by craftsmen in the chemical industry than it is for process workers. Not only is there a diversity of production technology which could result in many different jobs, but a wide range of trades and skills also exist within the craft area. It seems common for there to be central workshops, specialising in particular trades together with a small number of general maintenance men who work shifts.(314)

At Agrochemie AG the craftsmen spend part of their time working in the workshops and part carrying out jobs on the production plant itself.

312. From Interview VL 5, Oct.'78.
313. The close contacts between shift management and process operators could also be significant here. However, further data is really required to clarify these hypotheses.
314. Interviews CM 11, CM 16, Sep.'77; M 11, Oct.'78; CM 9, Nov.'78.
Even in the latter case this work often requires a mate as well as discussion with the craft and process supervisors or perhaps the operators themselves. In this way, craftsmen’s work in chemical industry is often linked with communication and does not, therefore, result in isolation in the same way as process work sometimes does. The type of jobs which craftsmen have to perform can vary considerably depending on personal ability and training from highly skilled precision work to extremely hard manual work. It was not clear, however, whether particular craft attitudes to the performance of less skilled jobs existed. No examples of this were met and there also seemed to be certain flexibility in process operators undertaking minor repairs. All these features have apparently led to more efficient maintenance work in Germany than in the U.K. Craftsmen remain the core of union organisation at the workplace. Skilled workers have a tradition of union membership in Germany, perhaps partly as a result of union youth work amongst apprentices.

There has already been certain consideration of differences in attitudes between craftsmen and process workers at Agrochemie AG. There was also an association between job satisfaction, which was generally high, and the type of work performed. From observation of the data it seemed that job satisfaction was greatest amongst process operators and decreased

315. Craftsmen tend to specialise on certain areas and thus the team sent on a particular job may vary. Some less qualified mates do exist but it is unusual. Interview 017, Oct.’78.

316. Chemical Manpower in Europe, op.cit., p.15.

317. According to a chi-squared test of association which was significant at the 2 per cent level. cf. Appendix 3, Table 6.
through the groups craftsmen and white-collar staff.\textsuperscript{(318)} A full explanation of this is difficult, particularly since so few non-managerial white-collar staff were interviewed. A partial explanation may be found, however, by considering the relative levels of earnings of process workers and craftsmen. Despite being more highly qualified, median earnings data revealed that craftsmen earned around DM 222 less per month than process workers. This difference can be traced primarily to shift premia and associated bonuses,\textsuperscript{(319)} but might still provoke dissatisfaction amongst craftsmen. In general, the workforce at Agrochemie AG seemed satisfied with their level of earnings\textsuperscript{(320)} and this is perhaps a reflection of the rural location of the works since agricultural earnings are often much lower.\textsuperscript{(321)}

Job satisfaction was measured in Fürstenberg's study in a much more sophisticated way.\textsuperscript{(322)} Although there were variations from one plant to another, the level of job satisfaction was, on the whole, high. However when he tried to analyse this data for association between job satisfaction and basic characteristics of the respondents, the results were rather confusing and contradictory.\textsuperscript{(323)}

\begin{itemize}
\item \textsuperscript{318} If this trend is taken to a logical (?) conclusion the rather unlikely hypothesis can be generated that job satisfaction decreases with increasing seniority. This hypothesis was not significant when tested for correlation (Kendall's non-parametric test). Fürstenberg claims - within the production area - that job satisfaction increases with a higher position in the hierarchy. F. Fürstenberg, \textit{op.cit.}, p.198f.
\item \textsuperscript{319} The improved wage levels of workers in high technology industries have been mentioned elsewhere. \textit{cf.} L. Stettner, \textit{op.cit.}, p.164.
\item \textsuperscript{320} \textit{cf.} Appendix 3, Tables 4 and 46.
\item \textsuperscript{321} Agricultural earnings just exceeded DM 1500 (gross) at about the same time as the case study was carried out. SJB 79, \textit{op.cit.}, p.456.
\item \textsuperscript{322} \textit{cf.} F. Fürstenberg, \textit{op.cit.}, p.199ff.
\item \textsuperscript{323} Ibid., p.205f.
\end{itemize}
At Agrochemie AG an attempt was made to classify some of the components of job satisfaction or dissatisfaction. Unfortunately this attempt was not altogether successful since many respondents were unable to split the evaluation of their work into a number of factors. Nevertheless, the primary cause of job satisfaction was found to be job content whilst the major cause of dissatisfaction was shift work. This seems to indicate a contradiction since process (i.e. shift) workers were generally more satisfied with their work. However, attitudes to shift work seemed to indicate that whilst many shift workers disliked this form of work they were prepared to accept it because of the rate of payment. This would suggest that earnings are a very important component of job satisfaction, something which was supported indirectly by respondents' statements:

"There are always problems as long as the money is not right, but if the money's right there are no problems." (326)

"As long as the wage is right, the power of the trade union is reduced." (327)

Although some respondents were unable to name factors which made their work difficult, working conditions were criticised most frequently. In the works sample half of the complaints were centred on this area whilst in the acid plant the percentage exceeded three quarters. This would seem to indicate that work was more unpleasant in the acid plant than elsewhere in the works since there was no other association between

324. cf. Appendix 3, Table 7.
325. cf. Ibid., Table 8 and Chapter 3, Section (i).
326. Translation of a statement from Interview VL 2, Oct.'78.
327. Translation of a statement from Interview M 7, Oct.'78.
328. cf. Appendix 3, Table 5.
the factors which made work difficult and the type of job performed. Observation supported these results since dust levels were sometimes high and changes in process technology and raw materials had worsened conditions.\(^{(329)}\) This illustrates the intimate connections between process technology and working conditions. Technological change is supposed to lead to improved working conditions\(^{(330)}\) and this has, perhaps, been the case at Agrochemie AG even though there seems to be room for further improvement. The amelioration of conditions in the production area is suggested by the less negative attitudes of process workers to technological change compared with those of craftsmen.\(^{(331)}\) On the other hand, there was only a relatively small increase in mental stress at Agrochemie AG as a result of technological change. The greatest increase in stress has resulted from decreased manning levels.\(^{(332)}\)

Another recent survey investigated stress and working conditions in a variety of chemical establishments. In this case, mental stress was a clear feature of work in the chemical industry as a result of constant supervision of the plant. In addition conditions such as dirt, dust, heat and noise also created problems in a large number of cases.\(^{(333)}\) In general, these results and those at Agrochemie AG seem to indicate that technological progress has not improved working conditions in the chemical industry to the degree which is sometimes claimed. At the same

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329. Interviews M 10, 023, 033, 041, Oct.'78.  
331. 100 per cent of craftsmen believed that technological progress would have some negative results compared with only 64 per cent of process workers. For the overall results to this question cf. Appendix 3, Table 10.  
332. cf. \textit{Ibid.}, Table 3.  
333. Landwehrmann and Albring, \textit{op.cit.}, pp.64-70, 101-2.
time, furthermore, mental stress is often a feature of work in the chemical industry.

There is a close association between working conditions and safety. This is a question of considerable importance in the chemical industry with its numerous potential hazards. However, a study of industrial relations does not allow the possibility of a detailed consideration of this problem. Nevertheless, at Agrochemie AG it was clear that most respondents were quite aware of the necessity to obey safety regulations and legislation.

There is generally close co-operation between works councils and management on safety matters. Joint committees often exist to inspect the plant, prevent accidents and investigate the cause of all serious accidents that do occur. The primary reasons for accident happening were felt to be carelessness and disregard at safety instructions as well

334. For a recent analysis of this problem and the chemical employers' response to this analysis cf. Koch and Vahrenholt, Seveso ist überall, Köln, 1978 and Verband der Chemischen Industrie, Seveso ist nicht überall, Frankfurt, 1978. Around 5.4 per cent of chemical workers are in constant contact with any of twelve carcinogenic or other very harmful substances. "Wie sicher ist der Chemiebeschäftigte," Infobrief, 7/79, p.5f.

335. cf. Appendix 3, Table 2.

336. Werksrichtlinien zur Unfallverhütung, 1976. These guidelines are quite detailed and compromise a ten page booklet. Also Arbeitsstättenordnung, 20.3.1975 (BGBl. 1,729) and Gesetz über Betriebsärzte, Sicherheitsingenieure und andere Fachkräfte für Arbeitssicherheit, 12.12.1973 (BGBl. 1,1885).

337. Many respondents stated that it was impossible to eliminate accidents and occupational illnesses entirely despite the extensive safety equipment and clothing provided without cost, bonuses for wearing safety equipment and the large number of safety representatives. Interviews GM 12, BRV 15, Nov.'78; M 1, M 5, BR 2, BR 3, Oct.'78. On safety training cf. BG Chemie, op.cit., p.33f.
as technical failure of equipment. (338)

Although it is not contended here that safety precautions in the chemical industry are beyond improvement, comparison of the industry's record with that in other branches shows that the chemical industry does not produce an especially large number of accidents or industrial illnesses.

Table 5.3.

Industrial accidents and industrial illness in the chemical industry in comparison with total industry. (339)

<table>
<thead>
<tr>
<th>Year</th>
<th>Chemical Industry</th>
<th>Average Total Industry</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Industrial Accidents (a)</td>
<td>Industrial Illness (a)</td>
</tr>
<tr>
<td>1960</td>
<td>2.39 (30)</td>
<td>0.16 (12)</td>
</tr>
<tr>
<td>1965</td>
<td>2.24 (30)</td>
<td>0.11 (13)</td>
</tr>
<tr>
<td>1966</td>
<td>2.22 (28)</td>
<td>0.12 (11)</td>
</tr>
<tr>
<td>1967</td>
<td>2.12 (28)</td>
<td>0.15 (12)</td>
</tr>
<tr>
<td>1968</td>
<td>2.06 (29)</td>
<td>0.15 (11)</td>
</tr>
<tr>
<td>1969</td>
<td>1.93 (28)</td>
<td>0.12 (15)</td>
</tr>
<tr>
<td>1970</td>
<td>2.19 (28)</td>
<td>0.11 (18)</td>
</tr>
<tr>
<td>1971</td>
<td>2.29 (26)</td>
<td>0.13 (13)</td>
</tr>
<tr>
<td>1972</td>
<td>2.11 (27)</td>
<td>0.14 (11)</td>
</tr>
<tr>
<td>1973</td>
<td>1.98 (26)</td>
<td>0.12 (13)</td>
</tr>
<tr>
<td>1974</td>
<td>2.04 (26)</td>
<td>0.16 (13)</td>
</tr>
<tr>
<td>1975</td>
<td>2.15 (23)</td>
<td>0.22 (10)</td>
</tr>
<tr>
<td>1976</td>
<td>1.51 (30)</td>
<td>0.17 (13)</td>
</tr>
<tr>
<td>1977</td>
<td>1.55 (27)</td>
<td>0.22 (14)</td>
</tr>
</tbody>
</table>

338. Interviews M 7, M 8, M 10, Oct.'78. Many cases result in minor injuries and do not lead to compensation. (Compensation was paid in only 2.7 per cent of accidents in 1977, Ibid., p.19, own calculations). An example of technical failure was given by one respondent at Agrochemie AG and it is reproduced here in order to provide an insight into the way that accidents can occur:

"A vessel containing concentrated nitric acid at 40 atmospheres pressure had been fitted with new valves which were made of two metals. This caused a voltage difference and led to corrosion. I was examining a valve and thought that it did not look right so I touched it. This caused the screw thread on the valve to come away and 50 kg of acid hit me in the face." Interview M 9, Oct.'78.


(a) The quotients are the number of compensated cases per 1000 injured persons and the figure in brackets indicates the position of the chemical industry out of 36 sectors.
The chemical industry has maintained a relatively constant position and has improved its record in the field of industrial accidents along with industry in general. As far as industrial illnesses are concerned, there has apparently been a reversal in trend since 1974. The reversal may be a result of changes in legislation concerned with the duty of employers to report cases in their establishments.\(^{340}\) Although there does not seem to be an association between the number of accidents requiring compensation and economic recessions, the number of accidents reported\(^{341}\) like the percentage of persons who are ill\(^{342}\) declines considerably during economic recessions. This most probably reflects fear amongst employees that absenteeism through illness or minor accidents could endanger their jobs. It might be concluded, however, that despite the hazardous nature of work there, the chemical industry's safety record is quite good.

Although labour intensive conveyor belt operations are not particularly typical of the chemical industry, they are common in certain sectors — pharmaceuticals, and other consumer orientated branches — as well as packaging and loading. At Agrochemie AG fertilizers were bagged and loaded into railway cars or lorries in this way. Such work has traditionally been primarily manual, and very strenuous, although in recent years some operations have been mechanised.\(^{343}\) Technological advance can lead here to a decrease in manual work but can also complicate or


\(^{342}\) cf. Zahlen zur Sozialpolitik, 1979, op.cit., p.63.

\(^{343}\) Interviews M 12, Aug.'77 and CM 11, Nov.'78.
increase the tempo so that the actual advantages of technological progress for the employees are dubious. Despite the very limited investigation carried out into this type of environment it seems that industrial relations in this type of plant or sector are often worse than those in other types of chemical plant. Furthermore, previous data on pharmaceutical production also illustrates how different attitudes can be in works which predominately use this type of production technology.

The extent of white-collar employment in the chemical industry, the reasons for it and the consequences that it has for labour relations in the industry have been discussed previously. Due to the wide range of white-collar jobs it is not possible to consider the conditions under which white-collar workers are employed beyond saying that they mainly work in laboratories and offices. Technological change has been gaining momentum in these areas in recent years, for example through word processors and automatic analytical techniques, so that large changes could soon take place in the conditions and type of work in the white-collar sector of the chemical industry.

The level of earnings in the chemical industry seems to be one of the

345. One respondent also stated that this was the case. Interview CM 11, Nov. '78.
347. For example, cf. Bayer (Zentrale Personalabteilung), Beispiele für Angestellentätigkeiten, no place (Leverkusen), which is a booklet 112 pages long.
main elements of job satisfaction. Since a high proportion of welfare benefits have a monetary content, it is possible that they also contribute to the high degree of job satisfaction. However, at Agrochemie AG, many employees seemed unable to categorise the welfare benefits which they received although their evaluation of the benefits was very positive. Scarcely any respondents desired a change in the status of these benefits so that they become protected by collective agreements, indicating a lack of awareness of the basic vulnerability of voluntary benefits.

However, the primary aim of welfare benefits from the management point of view, which is to create a permanent workforce, has certainly been achieved at Agrochemie AG. This is perhaps reflected in the general belief that the company would stand by them in case of personal difficulties and that their jobs are basically secure. The general validity of this data is uncertain but it shows that it is possible to create a permanent workforce even under conditions of "zero" unemployment that existed in Germany between 1960 and 1973.

There are a wide range of different conditions of employment and types of jobs in the chemical industry. Although technological progress may

350. Most respondents were only able to name the pension scheme cf. Appendix 3, Table 50.
351. Ibid., Table 43.
352. Ibid., Table 51.
353. As it is, both legislation and collective agreements have greatly reduced the range of voluntary benefits. E. Teschner, op.cit., p.83.
354. Less than 10 per cent of respondents had worked at Agrochemie AG for under five years. cf. Appendix 3, Table 61.
355. Ibid., Tables 16 and 44.
have brought a number of improvements in these conditions, many jobs are performed in unpleasant surroundings. Despite this many chemical employees are satisfied with their jobs, perhaps as a result of the high level of their earnings. Widespread job satisfaction is bound to have a positive effect on the climate of industrial relations in the chemical industry.

(v) Summary.

Workplace industrial relations in the German chemical industry are characterised primarily by a dual system of representation of employees' interests. The two types of representatives at this second level of labour relations in Germany are the works council and the local union organisation in the form of lay officers.

Works councils have their origin in the labour legislation of the Weimar Republic and today much of their strength is owed to the support provided by legislation and the established existence of this institution. The Works Constitution Act 1972 provides a bureaucratic system for the regulation of disputes which occur between management and the works council which at the same time creates a mutual dependency between these two bodies. In addition to this formal system, informal relationships develop between the works council and management as a result of frequent, close contacts. In this way the superimposing of formal and informal systems enhances a co-operative attitude towards dispute solution at the workplace. This is illustrated by the way in which domestic bargaining occurs and by the relative infrequency of works conciliation committees or industrial action.
In the chemical industry the collective agreements between employers' associations and unions cover a wide range of companies. Since the employers are insistent that the agreements do not drive the most unprofitable firms into bankruptcy, management in the more profitable companies is provided with a great deal of financial flexibility in their relations with the works council. Given the increasing consideration of macro-economic conditions in collective bargaining and the corresponding disregard of the economic state of particular industries, the relative strength of the chemical industry has further increased the flexibility of management in their local relations with the works council, particularly in the larger companies. Furthermore, the capital intensive nature of chemical production results in the relative unimportance of labour costs and the necessity to achieve maximum usage of plant. In this way management gains additional room for manoeuvre although at the same time the need to co-operate with the works council is increased.

Thus, management has the ability to make concessions when negotiating with the works council and to provide it with a wide range of benefits, many of which are voluntary, and which the works council, therefore, may not insist upon. This results in a system of co-operative solution of industrial conflict between works councils and management in the German chemical industry.

This situation naturally has a large number of consequences for the position of union representatives at the workplace; a position which can best be described in the chemical industry as one of weakness.
The relationship between works council and lay officers might be depicted as "antagonistic co-operation" since despite the dominance of the former body, it does require some support from the union lay officers in order to fulfil its tasks. To ensure this support the works councillors in the larger chemical establishments have developed a system of plant representatives elected by all employees as opposed to solely union members. Whilst the plant representatives are intended to have a position subordinate to the works council, the union lay officers generally fulfil a similar role.

In addition to the isolation of lay officers from "real" industrial relations issues at the workplace, a number of economic, structural and technological features of the chemical industry have further contributed to the weakness of union representation at the second level of labour relations.

The economic strength of the chemical industry has enhanced the achievement of satisfactory collective agreements without resort to strike action, yet it is during dispute situations that lay officers gain particular importance due to the legal restrictions upon the involvement of works councillors in industrial action.

The chemical industry has a high percentage of white-collar employees who are traditionally hard to organise in Germany. As a result union representation is poor amongst this group of employees. Furthermore, due to the system of plant representatives in the larger chemical companies, local union organisation is generally poor in these com-
panies which are crucial for the ability of the Chemical Workers' Union to strike successfully.

Within the production sectors of the chemical industry workplace organisation and manning levels hinder the involvement of lay officers in grievance solution and the distribution of information to the membership. Furthermore, in continuous process plants shift work impairs the ability of lay officers to attend trade union meetings and training courses. Therefore, lay officers who are employed in producing chemicals can be prevented from fulfilling their function by the technological constraints of the industry in which they work.

In consequence, effective trade union representation at the workplace is normally only to be found in the craft areas of the chemical industry since communication is often an integral part of the job and as a result of trade union traditions amongst skilled workers.

Case studies have indicated that the level of job satisfaction in the chemical industry is high and suggested that the main cause for this might be the level of earnings and other material benefits. The relatively low level of manual work in the chemical industry was another component of job satisfaction whilst dissatisfaction resulted from working conditions and shift work. Technology, therefore, has both positive and negative effects on job satisfaction with collective and workplace bargaining both contributing considerably towards satisfaction and so helping to create a peaceful climate in which industrial relations take place.
Chapter 6

An appraisal of industrial relations in the West German chemical industry.

The central hypothesis of this study is that the technical nature, industrial organisation and the economic state of the chemical industry all have a significant influence on the practice of labour relations in the industry. In addition, however, the first part of the investigation which dealt primarily with the situation in the West German chemical industry has demonstrated that political and legislative developments as well as behavioural factors have also affected industrial relations there. Although there is considerable interconnection and overlap between these factors, their influence on chemical industry labour relations is reviewed here separately for the sake of simplicity.

Behavioural factors which are difficult to quantify since they can vary from person to person may have a particular influence on collective bargaining. This is enhanced by the way in which senior officials are responsible for the latter stages of negotiations and therefore exert a considerable personal influence on the results. Beyond this, there also seems to be a marked fear of causing either inflation or unemployment amongst employees in the chemical industry - doubtless as a result of experiences during the Weimar Republic - and this has consequences primarily on their attitudes to the way in which collective bargaining is conducted during economic recessions.

Industrial unionism is an important feature of labour relations in West Germany. The rationalisation of union organisation after the Second
World War and the restoration of the pre-Hitler system of employers' associations has enhanced the development of orderly collective bargaining in the post-war period.

The range and system of collective bargaining are also greatly influenced by legislation. Indeed, one of the characteristics of labour relations in Germany is the importance of legislation and the significance of government intervention. In the collective bargaining area, legislation has resulted in binding collective agreements, regulations about the form they must take, who may make such agreements and a peace obligation on both sides for the period of validity of agreements. Legislation has further split industrial relations into two levels by removing a large range of issues from the sphere of responsibility of the trade unions and by creating a works council system to deal with these matters.

The works constitution has led to the dual representation of employees' interests at the workplace and has, in the chemical industry, been partly responsible for the weakness of shop-floor trade unionism. Furthermore, works councils in the chemical industry have created with management a bureaucratic system for the co-operative regulation of industrial conflict at the workplace. Should this system fail to solve these conflicts, legislation also provides additional mechanisms for their resolution in the form of the works conciliation committee and the labour courts. Labour court judgments have gained particular importance in strike law since they have extended and applied the basic legal provisions and become, in effect, judge-made law.

Another example of the influence of legislation on industrial relations
in West Germany is proved by co-determination on supervisory boards. This has extended the involvement of both trade unionists and works councillors in company management, and so increased the information available to these bodies. Such involvement has enhanced co-operation between managers and senior officials and together with the information gained by the trade unions can certainly have an influence on the climate and results of collective bargaining. At the workplace it can lead to a greater understanding of management's problems by the works council. However, in its present forms, supervisory board co-determination does not provide either trade unions or works councils with the ability to force a particular course of action or prevent another. Nevertheless, as a result of the size of many chemical companies, the recent extension of representational rights of employees on the supervisory board was an extremely controversial issue.

The climate of collective bargaining in the chemical industry has also been positively affected by its stable economic position and its rapid expansion which has continued with two exceptions for the last thirty years. This economic situation has provided management with scope to make concessions to the unions in both regional and national bargaining, leading to high wage levels and generous conditions of employment exemplified by the holiday provisions. As a result, relations between the chemical employers' associations and the Chemical Workers' Union are respectful and co-operative.

On the other hand, there have been differences in the economic developments of various sectors of the chemical industry. Only the most mammoth
companies have highly diversified product ranges and are cushioned from these structural weaknesses. The employers' associations have, therefore, been unwilling to sign agreements which are likely to endanger the economic positions of companies whose main operations are concentrated in economically weak sectors of the industry, such as man-made fibres. As a consequence of this and the wide scope of most collective agreements in the chemical industry, many company managements are provided with considerable room to manoeuvre in their negotiations and relations with the works council. In this way, the healthy economic state of the chemical industry has aided co-operative concessionary relations both at the workplace and in collective bargaining. Nevertheless, when economic recessions have occurred, disputes have arisen. Thus, the 1971 chemical industry strike was certainly caused in part by the minor chemical industry slump in 1970, and the 1977 Rheinland-Pfalz "dispute" caused by this region's rapid recovery from the economic depression of the mid 1970's.

From a historical point of view the economic development of the chemical industry has had a number of consequences for industrial relations which are currently relevant. The industry developed rather later than did the heavy industries. Therefore, one consequence of the late industrial revolution in Germany, trade union weakness, was especially marked in the chemical industry. Despite rapid union expansion during the early part of the Weimar Republic, disputes in chemical companies usually resulted in defeat for the unions. This reflects the strength of management resistance to unionism which was often co-ordinated between companies; a course of action facilitated by the high concentration in the
industry, above all during the Weimar period. The present ideological splits in the Chemical Workers' Union may be seen as the post-war equivalent of a fragmented union movement.

The rapid growth of the chemical industry has provoked large labour requirements, often on green field sites. As a result, chemical management has traditionally used an extensive system of welfare benefits in order to attract the necessary labour and to create a stable workforce. These aims have generally been achieved in recent years and such measures have probably helped to prevent the establishment of strong trade union workplace organisations particularly in the larger chemical companies, where welfare benefits exist on a very large scale.

The West German chemical industry has a structure which might be characterised as consisting of a small number of enormous companies—historically the decartelised IG Farben—together with a large number of middle-sized and small manufacturers of specialised chemical products. This has influenced industrial relations in a variety of ways. Co-ordinated management resistance to unionisation has previously been mentioned but this co-ordination is now most important within the employers' associations, especially as far as collective bargaining is concerned. In addition, the relatively small number of important chemical companies has enhanced trends towards effective centralisation within the associations.

The size of chemical companies has implications for industrial relations beyond the importance of the company in the employers' associations. For example, the company size determines directly what form of co-
determination applies within the company and how extensive the provisions of the works constitution are, since only establishments with more than one hundred employees are required to form an economics committee. Furthermore, the character of industrial relations at the workplace seems to vary with the size of the establishment. Management policies in large companies are usually extremely sophisticated, and the works council bureaucracies effective. As a result disputes rarely seem to develop. Similar peaceful relations are usually met in small companies where personal relationships gain particular significance. Sometimes disputes do arise, however, in middle-sized companies, especially when they are managed by a single executive, who may well own the company. As has been discussed above, increased size often leads to increased diversity of production which in turn may provide increased economic stability for the company.

Labour relations on large production sites deserve some further consideration. Such sites are characterised by a highly complex technological organisation with a large number of interconnected production plants which may well be scattered over a large physical area. Capital intensity is generally another feature of such sites. Under such circumstances it becomes very difficult for the trade union to organise strikes, not only because of the technical complexity but because communication is very difficult due to an inadequate number of union workplace representatives - it is on these sites that plant representatives are most common. However, due to their size, these sites are crucial to the employers. If the trade union is ever to be successful in an industrial dispute in
the chemical industry, then it must develop a system of effective strike action on these sites.

The workforce structure of the chemical industry has several effects on industrial relations. The main characteristic of this structure is the large number of white-collar employees. This has been explained by considering the technological nature of the industry which requires extensive research facilities, analytical production control, large sales organisations in some sectors and a great number of scientifically trained managers. However, white-collar staff have traditionally proved extremely difficult to organise and this is doubtless one reason for present trade union weakness in the industry. Another consequence, where white-collar workers have joined the industrial union, has been ideological differences within the union. Despite this, the Chemical Workers' Union has adopted policies which have led to widespread status harmonisation between blue- and white-collar workers and which may, in the future, lead to unified pay agreements for both groups.

The nature of chemical production is such that there are relatively few skilled workers who have completed apprenticeships; these workers traditionally form the centre of trade union support amongst the workforce. Continuous process technology and high technology production lead to shift work, scattered workplaces and small work groups. This, from a trade union point of view, can cause poor communications, isolation and a lack of solidarity. On the other hand, regular contacts between the workers and management as a result of work organisation foster good relations between these groups.
The reasons for the large number of managerial and other senior staff, many of whom have academic qualifications have already been considered during this chapter. The size of this group has certain specific effects on industrial relations. The chemical industry is the only German industry with collective agreements for staff with academic qualifications. These employees also have their own representative organisations, a union to engage in bargaining with the employers' associations which has a very high membership density and company consultative committees to deal with more specific issues. Both these types of organisation have received increased impetus through the Co-determination Act 1976 which gives senior managerial staff special representational rights.

High technology industries such as chemicals are by their very nature capital intensive. This has consequences for the industrial organisation since large companies are required in order to finance the necessary investment and research. In addition, labour costs are relatively unimportant whilst maximum utilisation of plant is a high management priority. These latter factors are likely to increase the willingness of management to co-operate with the representatives of their employees and to make concessions to them.

Chemical technology also leads to a wide range of different types of jobs. However, these jobs are generally less manual than those in other industries and technological change has resulted in some improvements in working conditions. At the same time, though, these changes have led to increased stress, to more shift work and to increased capital intensity.
The technical complexity of the chemical industry has also contributed towards a rejection of third party involvement in dispute regulation whether in the form of state arbitration, the use of external arbitrators in the joint conciliation procedure or in the low incidence of work conciliation committees and labour court cases. Industrial relations in the West German chemical industry can be characterised as co-operative in nature as a result of legislation, the economic state of the industry, its technology and industrial organisation. These factors are also primarily responsible for one of the most striking features of chemical industry labour relations - trade union weakness, particularly at the workplace.
INDUSTRIAL RELATIONS IN THE WEST GERMAN
AND BRITISH CHEMICAL INDUSTRIES

VOLUME 2

DAVID RAYMOND EBSWORTH
PART TWO - COMPARATIVE ANALYSIS
Chapter 7.

A comparison between industrial relations in the West German and British chemical industries.

The previous part of this study has concentrated on examining industrial relations in the West German chemical industry. In the present chapter comparisons are drawn between the situation in Germany as it has been portrayed above and industrial relations in the British chemical industry, using information which has been gleaned primarily from two academic studies (1) and empirical investigations carried out as a part of this dissertation. (2)

In this way, chemical industrial relations can be compared and contrasted under two very different labour relations environments (3) with the aim of developing hypotheses about the general nature of industrial relations in the chemical industry. In order to achieve this aim, the comparison will focus upon a number of important features of industrial relations such as trade unionism, employers' associations and management whilst at the same time incorporating collective bargaining, workplace relations, industrial organisation and the economic development into the analysis.

(i) Basic characteristics of the chemical industry and its industrial relations.

Although the British chemical industry is not as important as its German counterpart to the total national economy, (4) it does have a crucial

2. See Chapter 1, Section (ii) above.
3. The main differences in the two systems are the importance that legislation has traditionally played in labour relations.
4. See Chapter 1.
position within the economy as a supplier and consumer of a wide range of products. The economic state of the chemical industry has consequently been influenced by the overall economic climate in Britain, particularly during the 1960s when "almost all European nations recorded a faster growth in chemical output than in Britain." However, the growth rate of the British chemical industry when compared to the British national economy has exceeded that of the chemical industries in the United States, Germany and Japan compared with their national economies.

The basic indicators of this economic development are presented in the next table.

Table 7.1.


<table>
<thead>
<tr>
<th>Year</th>
<th>Production Index</th>
<th>Price Index</th>
<th>Export Volume Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>1968</td>
<td>90</td>
<td>96</td>
<td>94.7</td>
</tr>
<tr>
<td>1969</td>
<td>95</td>
<td>100</td>
<td>95.5</td>
</tr>
<tr>
<td>1970</td>
<td>100</td>
<td>100</td>
<td>100.0</td>
</tr>
<tr>
<td>1971</td>
<td>102</td>
<td>100</td>
<td>108.2</td>
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<tr>
<td>1972</td>
<td>108</td>
<td>102</td>
<td>113.7</td>
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<tr>
<td>1973</td>
<td>121</td>
<td>111</td>
<td>118.9</td>
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<tr>
<td>1974</td>
<td>128</td>
<td>108</td>
<td>152.8</td>
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<tr>
<td>1975</td>
<td>116</td>
<td>101</td>
<td>188.7</td>
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<tr>
<td>1976</td>
<td>131</td>
<td>103</td>
<td>216.6</td>
</tr>
<tr>
<td>1977</td>
<td>135</td>
<td>104</td>
<td>251.1</td>
</tr>
<tr>
<td>1978</td>
<td>137</td>
<td>105</td>
<td>271.3</td>
</tr>
</tbody>
</table>

6. Ibid., p.113.
As in Germany the chemical industry in Britain was severely affected by the world-wide recession during the mid 1970's. A similar vast increase in the price of chemical products is apparent and in Britain as in Germany there was a delay before the full effects of the recession hit the chemical industry. The chemical industry does, however, seem to have recovered from this recession and the traditional patterns of economic growth and stable prices have reasserted themselves. (9)

In Germany the association between the healthy economic state of the chemical industry and collective bargaining in that industry played an important role. However, in Britain, incomes policy has restricted free collective bargaining throughout the majority of the last two decades. (10) This has not only removed much of the controversy from national negotiations in the chemical industry (11) but it also limited the range of bargaining which could be carried out locally, (12) at least until productivity criteria were re-introduced in 1977. (13)

9. For the German developments cf. Chapter 3, Section (iii). In 1979 there were extremely large increases in naphtha prices which can be expected to cause the price of organic chemicals to rise once more. cf. S. Cameron, "Naphtha rises start new ICI price round," Financial Times, 23.5.1979, p.10. Similar fears were expressed in Germany cf. "Auf Erdöl angewiesen - Wandel im Energieverbrauch," Infobrief 21/1979, p.2.


11. Interview MAN 9, Dec. '77.

12. Interview MAN 6, July '79.

13. H.A. Clegg, 1979, op.cit., p.353. Productivity bargaining was once well established in the chemical industry since there are a number of similarities between it and the oil industry in which it was first applied in Britain. cf. A. Flanders, The Fawley Productivity Agreements, London, 1964. A further discussion of productivity bargaining may be found below.
This could well explain why the difference between the average earnings of British chemical workers and those of workers throughout the economy was not very great in 1976. Since the relaxing of incomes policy around this time, chemical workers' earnings have increased at a faster rate than earnings in general so that by April 1979 they were 6.9 per cent above the average level. In this way, British chemical workers begin to approach the position of their German counterparts as a group of employees which earns well above the national average.

Such a situation might well be expected in the chemical industry as a result of its capital intensive nature with its resultant reduction in the importance of labour costs.

High earnings can, naturally, have a great influence on job satisfaction within an industry. When, however, incomes policy restricts the freedom of the bargaining parties to adopt the type of agreements which they desire, developments can result - a reduction of differentials, for example - which can cause numerous problems when the policy is terminated, allowing a return to free collective bargaining. For this reason, national negotiations in the chemical industry encountered considerable problems in 1979.


16. For earnings in the German chemical industry cf. Chapter 3, Section (iii)e.

17. One way out of this problem was to take the amount of increase provided by the national pay award and distribute it in a different way than foreseen in this award as the result of local agreements. This ploy was used at Growmore Ltd, for example. Interview MAN 3, June '79.

18. Interview MAN 6, July '79.
Fragmented collective bargaining is common in British manufacturing industries and the chemical industry is no exception to this. Not only do a wide range of payment systems exist, there are also numerous types of agreements, e.g., company, works, national and sectoral. The picture is usually complicated further by separate agreements for general workers, craftsmen and white-collar employees in so far as this latter group is covered by collective agreements.

As a result, there are four main national agreements in the chemical industry at present:

a. The Chemical and Allied Industries, Joint Industrial Council Agreement;

b. The Chemical and Allied Industries, Agreement for Engineering and Building Trades Craftsmen;

c. The Drug and Fine Chemical, Joint Conference Agreement;

d. ICI national company signatory unions agreement.

Despite this rather complicated situation which reflects the union

19. cf. C. Gill et al., op.cit., p.129.
20. cf. Agreement of December 1976, it covers around 60,000 general workers in the Heavy Chemicals, Fertiliser and Plastics areas of the industry in conforming CIA member companies only. (On this subject see below). Interview MAN 9, Dec.'77.
21. cf. Agreement of September 1977, covering around 12,000 craftsmen in a variety of trades throughout the same companies as the JIC agreement. Ibid. However, this agreement applies generally for craftsmen in the Chemical and Allied Industries (except ICI). Interview TU 14, June '78.
23. Covering 52,100 weekly paid employees of whom 15,000 are craftsmen. C. Gill et al., op.cit., p.89.
structure within the chemical industry as well as its industrial organisation, a basic breakdown of earnings in the chemical and allied industries is possible. The wide range of earnings in the British chemical industry is clearly demonstrated as is the importance of plus-rate payments from a variety of sources. Local agreements seem to account for around 30 per cent of average weekly earnings for male chemical workers. At Growmore Ltd. managers confirmed that similar circumstances existed, whereby the local agreements constituted an even higher percentage of the pay packet, this probably being a reflection on the concentration of chemical industry in the area. Nevertheless, trade union national officers with a greater overview of the situation corroborated the relative importance of local agreements within the chemical industry.

Local agreements are a more important source of earnings for blue-collar workers in the British chemical industry than is the case in Germany where such extensive local payments are only made on the largest chemical sites. These differences are not only a reflection of the two collective bargaining systems - in Germany the most significant level of bargaining for wages is the regional level - but also of the strength of workplace trade unionism in the British and German chemical industries.

25. See Table 7.2 overleaf.
26. Interview MAN 6, July '79 and MAN 7, April 1978.
27. Interviews TU 9, Jan.'78 and TU 13, Aug.'78.
28. The German local payments originate from a number of sources, such as works council agreements and, primarily, voluntary payments from management.
29. See below.
<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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</thead>
<tbody>
<tr>
<td>3.57</td>
<td>9.80</td>
<td>5.57</td>
<td>4.79</td>
<td>2.10</td>
</tr>
<tr>
<td>5.57</td>
<td>9.80</td>
<td>4.90</td>
<td>4.90</td>
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</tr>
<tr>
<td>3.57</td>
<td>9.80</td>
<td>5.57</td>
<td>5.57</td>
<td>2.10</td>
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<tr>
<td>5.57</td>
<td>9.80</td>
<td>5.57</td>
<td>5.57</td>
<td>2.10</td>
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</tbody>
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### Table 7.2

<table>
<thead>
<tr>
<th>Category of Payment</th>
<th>Heavy Chemicals</th>
<th>Organics and Other</th>
<th>Allied Industries</th>
<th>Other Chemicals</th>
<th>Synthetic Resins</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rubber</td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
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</tbody>
</table>

*Weekly Average Gross Earnings in the Chemical and Allied Industries 1977 (full-time male manual workers)*
Terms and conditions for white-collar staff are standardised throughout the majority of British chemical companies. The chemical industry provides a good example for the recent spread of bargaining within the white-collar sector. Around 90 per cent of this bargaining is multi-plant in nature with the remaining 10 per cent being limited to single establishments. This latter situation might occur where white-collar unionism has only developed on a single site within a company but to such a level that it would be impossible to refuse recognition.

The rise of white-collar unionism in the British chemical industry is discussed in greater detail elsewhere but it has certainly been enhanced by the growth in white-collar employment from around 25 per cent of the workforce in 1948 to over 40 per cent by 1976.\(^{32}\) The current workforce structure of the German chemical industry has developed in a similar way to this particularly when regional variations are taken into consideration.\(^{33}\) In Germany, industrial unionism in an industry with a high concentration of white-collar workers which are poorly organised, has led to status harmonisation in the form of joint negotiations and agreements for both white-collar and blue-collar workers. In Britain also, there is more equality of conditions

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30. Interview TU 10, May '78.


32. Gill et al., op.cit., p.155. Bain considers high employment concentration to be conducive to unionisation although he notes the chemical industry as an anomaly since for 1964 he calculated a membership density of only 3.7 per cent. G.S. Bain, The Growth of White-Collar Unionism, Oxford, 1970, pp.36, 72-81.

33. cf. Table 3.3.
between staff and payroll in the chemical industry than in almost any other industry, (34) but it is exactly this erosion of differentials that has been one of the contributory factors causing the large rise in white-collar union membership in the chemical industry. (35) It is possible, therefore, were differentials between white and blue-collar workers in the German chemical industry to be reduced considerably that this would provide an impetus for increased membership in the German Salaried Staff Union.

As a result of the fragmentation of bargaining in the British chemical industry which includes separate agreements for general workers and craftsmen, it is to be expected that different wage rates exist for these groups. These variations are considered in Table 7.3.

Traditional skill differentials have generally been maintained in the British chemical industry partly through higher basic earnings and partly through greater overtime working. This contrasts with the situation at Agrochemie AG where shift premia raised the earnings of those workers on a continuous 3-shift system above those of craftsmen. This greater resilience of traditional skill differentials in Britain is almost certainly a result of craft unionism and its defence of craft principles despite willingness to accept productivity deals which

34. Interview TU 11, June '78.

35. Interviews TU 2, TU 4, TU 6, TU 7, MAN 4, all June '79; TU 10, May '78.
<table>
<thead>
<tr>
<th>Year</th>
<th>Average Weekly</th>
<th>Average Payement</th>
<th>Total Number</th>
<th>Average Overtime</th>
<th>Total Number</th>
<th>Average Overtime</th>
<th>Total Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010</td>
<td>2.93</td>
<td>74.5</td>
<td>540</td>
<td>1950</td>
<td>2.93</td>
<td>74.5</td>
<td>540</td>
</tr>
<tr>
<td>2010</td>
<td>1.73</td>
<td>70.27</td>
<td>7800</td>
<td>70.27</td>
<td>1.73</td>
<td>70.27</td>
<td>7800</td>
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<tr>
<td>2010</td>
<td>2.56</td>
<td>74.5</td>
<td>540</td>
<td>1950</td>
<td>2.56</td>
<td>74.5</td>
<td>540</td>
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<tr>
<td>1980</td>
<td>2.90</td>
<td>74.00</td>
<td>540</td>
<td>1950</td>
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<td>74.00</td>
<td>540</td>
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<tr>
<td>1980</td>
<td>3.00</td>
<td>74.00</td>
<td>540</td>
<td>1950</td>
<td>3.00</td>
<td>74.00</td>
<td>540</td>
</tr>
<tr>
<td>1980</td>
<td>2.90</td>
<td>74.00</td>
<td>540</td>
<td>1950</td>
<td>2.90</td>
<td>74.00</td>
<td>540</td>
</tr>
</tbody>
</table>

**Legend:**
- General Workers
- Building Craftsmen
- Maintenance Craftsmen
- Other Engineering
- Other Workers
- Production Workers
- Non-manual Workers
- 2-Shift Workers
- 3-Shift Workers

- Average Weekly Earnings in Chemical Manufacture by occupation and skill June 1976
- *Full-time earned & Manual Workers*
were designed to reduce the differences. (37)

Although the data used in this table is from a survey the exact details of which are unknown, its size should permit a certain level of confidence in the results. It must be assumed that stratified sampling was used in order to create an accurate picture as far as the summary of results is concerned. It follows, therefore, that the number of the various groups surveyed should give an indication of the structure of the male blue-collar workforce in chemicals. It reveals that payment-by-results systems are not especially important in the chemical industry and that, as might be expected from the technological nature of chemical production, continuous 3-shift working is the most common type amongst general workers. The scope of shift-work in the production area is also shown by the small percentage (32%) who work days. In all over 50 per cent of the workers sampled are shown as being engaged on some form of shift work and the survey does not allow for craftsmen who work shifts. (38)

As in Germany, shift work can lead to problems although the emphasis is somewhat different. Whilst the German union officials often


38. At one company visited just under 10 per cent of craftsmen were employed on shifts. Interview MAN 1, May '78. This is apparently the overall position in the industry. Interview TU 11, June '78. Some staff, of course, such as supervisors, technicians, etc., work shifts too. Interview TU 10, May '78.
complained of the difficulties in communicating with their members on shifts, this view was rarely expressed by the union side in Britain. (39) Perhaps this indicates the strength of local officers in the two countries. Management did, however, state that it created communication difficulties for them. (40) This might be either a reflection of a greater awareness of the need for direct communication as opposed to formal consultation procedures on the part of management or it could reflect less successful use of shift supervisors for this task in the United Kingdom. (41)

The main motivation for chemical employees' willingness to work shifts is apparently based upon the higher earnings in Britain. No other advantages were mentioned as at Agrochemie AG, where the rural location resulted in many workers owning small holdings. It is also less usual, in Britain, for workers to have to visit public offices which only open during normal working hours, than is the case in Germany and this removes an occasional advantage in being a shift worker. Shift differentials seem to be the cause of dissatisfaction and disagreements between various groups in the chemical industry with day workers and craftsmen considering them to be too high and shift workers believing them to be too low. This can lead both to inter- and intra-union disputes. (42) Differentials may be a greater problem in the British chemical industry

39. However, it can occur that shift workers have no contact with convenors for two weeks at a time. Interview TU 5, June '79.
40. Interview MAN 1, May '78 and MAN 6, July '79.
41. Further discussion of the role of management in the British chemical industry may be found below.
42. Interviews TU 1, May '78; TU 3, TU 4, MAN 4, June '79. (General workers - both day and shift - are usually organised by the same union, whilst craftsmen belong to their respective unions).
than the German because of a possible general dissatisfaction with the level of earnings in Britain. At Agrochemie AG, employees were generally satisfied with the amount that they earned.\(^{43}\)

Shift work is required by the technological – as well as the economic – constraints of the chemical industry. Not only do chemical plants often take days to start up or shut down, the capital investment levels\(^{44}\) required for a capital intensive industry like chemicals mean that "base chemical plants have to run at 90+ per cent capacity in order to reach the break even point."\(^{45}\) As a result of this, management's flexibility of action is reduced, although the relative unimportance of labour costs counterbalances this to a certain extent.

In Britain many respondents stressed the positive effects of high technology on industrial relations. These positive effects seemed to be caused by a number of factors such as high earnings, increased job satisfaction through decreased monotony and manual work and through the greater skill levels required amongst the workforce; high technology production also seems to increase the number of workers with scientific and engineering training.\(^{46}\)

Some British respondents did mention that high technology was often associated with rationalisation as a result of technological advance.

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43. For a consideration of shift work in Germany cf. Chapter 3, Section (i). On earnings, Ibid, Section (iii)e.
44. In 1975, the British chemical industry accounted for 17 per cent of all manufacturing investment, although there are fluctuations in this level. Chem. Stats., op.cit., p.18.
45. Interview MAN 5, June '79.
46. Interviews TU 1, May '78; TU 2, MAN 3, MAN 4, June '79; TU 11, June '78; TU 13, Aug.'78; MAN 7, Apr.'78; MAN 9, Dec.'77.
In general this did not seem to create particular problems and some involvement of shop stewards certainly occurs in such areas.\textsuperscript{(47)} It is also proposed that a committee be set up in the near future by the CIA and the unions to provide guidance and advice on the probable effects of technological progress in the industry. Such consultative procedures, the healthy economic state of the chemical industry and union attitudes to change may lie at the heart of the unproblematic technological advance.\textsuperscript{(48)}

Evidence did emerge, however, which supported the view of Gill \textit{et al.}\textsuperscript{(49)} that there are a large number of heavy, dirty, unpleasant and monotonous jobs in the chemical industry, despite the improvements which have taken place over the years.\textsuperscript{(50)} The British and German chemical industries display in this instance a further point of similarity.

Chemicals production in Britain is typically carried out by small groups of workers scattered through complex, dispersed production sites. Respondents often believed that these small groups enhanced stable industrial relations through making control and communication more simple for management, and reducing anonymity.\textsuperscript{(51)}

The workplace organisation as it is found in chemicals seems to weaken

\textsuperscript{47} Interviews TU 1, May '78; TU 6, MAN 4, June '79.
\textsuperscript{48} Interview TU 3, June '79.
\textsuperscript{49} Gill \textit{et al.}, op.cit., p.234f.
\textsuperscript{51} Interviews TU 1, May '78; TU 2, TU 4, TU 6, MAN 3, MAN 4, June '79.
the strength of the union by increasing the difficulties of recruitment and communication and by decreasing the direct influence of the shop steward over the men, since contact is less frequent than might be the case in large workshops. (52)

The basic characteristics of the British chemical industry appear, therefore, to influence labour relations in a generally similar way to the influences exerted by those in the German chemical industry on labour relations there. The differences which emerge, such as union structure for example, seem to result from differences in the total national industrial relations systems. Thus a comparison of trade unionism will be made at this juncture.

(ii) Trade unionism in the chemical industry.

When compared with the relatively uncomplicated nature of trade unionism in the West German chemical industry, the situation in Britain might seem confused and unintelligible. In fact, this is not the case at all; the present structure of trade unionism in the British chemical and allied industries can be explained by considering the development of the British trade union movement and collective bargaining in the chemical industry. A major feature of this develop is its continuity, whilst in Germany the trade union movement was dissolved in 1933, suffering a break of sixteen years before the re-establishment of a national union organisation with a rationalised, industrial union structure.

52. Interviews TU 10, May '78; TU 11, TU 14, June '78 and MAN 6, June '79.
Due to difficulties in defining the chemical industry and to variations in the internal structure of British trade unions it is impossible to accurately assess the extent of union organisation in the industry. Price and Bain estimated the union membership density in chemicals to be 51.4 per cent in 1974. This represents a fairly rapid rate of growth from the mid 1960's and through the 1970's. It can safely be assumed that the union membership density of the chemical and allied industries has further increased since 1974 due to an increasing number of union membership agreements and as a result of increasing unionisation amongst white-collar staff.

Since the proportion of white-collar staff is high in chemicals, then the union membership density in this industry may now be approaching the average membership density in private manufacturing industry more closely than in 1974.

Since Verma reported estimated union membership in chemicals industries

53. of Chapter 1, Section (1).
56. For example of Shell U.K. Ltd., Union membership agreement, w.e.f. 1.6.1977. A union membership agreement for ICI was concluded in 1969 as a part of the WSA negotiations. J. Roeber, op.cit., p.328ff.
57. Interview TU 10, May '78. Further discussion of this growth in white-collar union membership may be found below.
58. of Price and Bain, op.cit.
for 1967, additional amalgamations and changes in name have taken place. The Chemical Workers' Union was amalgamated into the TGWU in 1972 ending a long series of inter-union disputes between it and the main process unions which succeeded in preventing the CWU from representation on the JIC. This amalgamation probably brought the TGWU around 7000 additional members in the chemical industry.

Process or general workers in the chemicals and allied industries are organised primarily by the TGWU and the GMWU in the Heavy Chemicals sectors and USDAW whose membership is concentrated in Fine Chemicals. There seems to be a degree of uncertainty about the number of members in the respective industrial groups of these unions as data collected as a part of this study does not agree with that presented by Gill et al.

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59. The estimated membership was as follows:

<table>
<thead>
<tr>
<th>General Workers</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Transport and General Workers' Union</td>
<td>61 000</td>
</tr>
<tr>
<td>National Union of General &amp; Municipal Workers</td>
<td>50 000</td>
</tr>
<tr>
<td>Union of Shop, Distributive &amp; Allied Workers</td>
<td>15 000</td>
</tr>
<tr>
<td>Chemical Workers' Union</td>
<td>12 000</td>
</tr>
<tr>
<td>Salt Unions</td>
<td>4 000</td>
</tr>
<tr>
<td>Craftsmen</td>
<td></td>
</tr>
<tr>
<td>Amalgamated Engineering Union</td>
<td>15 000</td>
</tr>
<tr>
<td>Electrical Trades Union</td>
<td>6 000</td>
</tr>
<tr>
<td>Other Engineering Unions</td>
<td>3 000</td>
</tr>
<tr>
<td>Building Workers</td>
<td></td>
</tr>
<tr>
<td>National Federation of Building Trades Operatives</td>
<td>3 000</td>
</tr>
</tbody>
</table>


60. Not to be confused with the German Chemical Workers' Union (IG Chemie). An account of the struggle between the CWU and the larger unions may be found in S.W. Lerner, Breakaway Unions and the Small Trade Union, London, 1961, pp.13-65.

61. Gill et al., op.cit., p.147.

62. Ibid., p.124.
At the end of 1976 the Chemical, Rubber Manufacturing and Oil Refining Industries Group of the TGWU had just below 140,000 members.\(^{63}\) The GMWU claims to be the "leading union across all sectors of the chemical industry"\(^{64}\) but the membership in its chemicals, rubber and glass group is uncertain.\(^{65}\) USBAW organises some 162,000 industrial workers although it is very difficult to say how many work in the chemical and allied industries. There are 18,600 members in the chemical company branches but there are also members "buried" in general branches, so that membership may be of the order of 22–23,000.\(^{66}\) These three unions bargain together on the JIC with the TGWU supplying the union chairman and on the Drug and Fine Chemicals Joint Conference where USBAW is dominant.\(^{67}\)

The size of other unions which organise process workers in the chemical industry, such as the Union of Salt, Chemical and Industrial General Workers which is recognised by ICI,\(^{68}\) is uncertain but their membership is probably very limited.

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64. D. Basnett (General Secretary), in GMWU, UK Chemicals: The Way Forward, Esher, no date (1977).
65. Gill et al. claim this group has around 120,000 members and this is probably of the correct order, although doubt must exist about the veracity of this figure due to inaccuracies in their estimations for the TGWU and USBAW.
66. Interview TU 14, June '78.
67. Although they are not covered by the CIA there are several other bargaining bodies which might be classed to be part of the chemical and allied industries such as the Paint, Varnish and Lacquer, National JIC, the Gelatine and Glue Joint Council, and the Soap, Candle & Edible Fats JIC. Interview MAN 9, Dec. '77. Their existence is a result of the resistance of these sectors of the industry from being incorporated into the JIC at the time of their foundation, perhaps from fear of under representation of their specific interests. R. Charles, The Development of Industrial Relations in Britain, London, 1973, p.150.
68. J. Roeber, op. cit., p.21.
The only other unions which organise manual chemical workers are the craft unions which organise the respective skilled maintenance workers and other skilled operatives. Five unions negotiate with the CIA for the craftsmen at national level: AUEW; EEPTU; the National Union of Sheet Metal Workers, Coppersmiths, Heating and Domestic Engineers; the Amalgamated Society of Boilermakers, Shipwrights, Blacksmiths and Structural Workers; and the Union of Construction Allied Trades and Technicians. (69)

As the names of these unions suggest there have been a considerable number of amalgamations within the craft area bringing a certain amount of rationalisation with it. On all but the largest sites, or those with considerable construction work being carried out, the only two craft unions of importance are the Engineers' and Electricians' Unions. However, national officers in neither union were able to state what their chemical industry membership amounts to since these unions have a branch structure which is based upon where the members live rather than where they work. (70) It can be assumed, though, that the membership density in the craft regions of the chemical industry approaches 100 per cent since craftsmen are not limited to working in one particular industry and may well require a union card should they change jobs. The high membership density amongst craftsmen is probably partly a result of craft attitudes and traditions which have been maintained with the aid of rigorous apprenticeship schemes. (71)

69. Agreement for Engineering and Building Trades Craftsmen, op.cit.
70. Interviews TU 4 and TU 5, June '79. This is doubtless one reason for the demise of the branch as a power centre within these unions with the growth in importance of the workplace organisation.
Until very recently union membership within the white-collar sector of the chemical industry was almost non-existent. However, by 1976 ASTMS was claiming a membership of 51,000 members in chemicals and two years later as many as 75,000 members. ASTMS seems to be the dominant white-collar union in chemicals for although other unions have established some membership within the industry, about three quarters of white-collar union members in the chemical and allied industries apparently belong to this union which was only founded in 1968 as an amalgamation of ASSET and AScW.

Trade unionism within the British chemical industry might be summarised as being fragmented with union membership of varying densities in the process areas split between TGWU, GMMU and USDAW, very high membership densities in the craft area in the respective unions and rapid growth in the white-collar sector led primarily by ASTMS. This contrasts very considerably with the situation in Germany where the Chemical Workers' Union, an industrial union, attempts to organise process, craft and white-collar workers in the same union with varying degrees of success. The only other union in the German chemical industry with significant membership caters for senior staff since the German Salaried Staff Union has so few members it refuses to reveal the number. The

72. In 1964 it was calculated to be 3.7 per cent. G.S. Bain op.cit., p.35.
73. USDAW document, op.cit., p.2.
74. Interview TU 10, May '78.
75. cf. Gill et al., op.cit., p.163.
development of unionism in the German chemical industry has been portrayed above (77) and a brief consideration of the evolution of unionism in the British chemical industry follows for comparison. (78)

As in Germany, the British chemical industry only developed after the industrial revolution had been underway for sometime, and its most rapid growth has taken place in the twentieth century. One commentator recently observed that in the 1920's "the chemical industry was too new, scattered and diverse to have built up any tradition of trade unionism." (79) Whilst issue can be taken with the claim that chemical production was scattered - there were distinct concentrations in the north-west - the other factors did influence the growth of trade unionism.

One important inhibitant to the spread of trade unionism within the process side of the chemical industry was the severity of the working conditions, making employment in the industry the last resort. At a time of heavy unemployment amongst unskilled labourers from whom the industry recruited its workers, labour fluctuation rates were extremely high. These conditions were not conducive to the development of trade unionism so that it "made very little progress amongst chemical workers in the early and mid-nineteenth century, apart from a minority of craftsmen associated with the industry who repaired machinery and plant." (80)

77. cf. Chapter 2 (ii).
78. The majority of the data for the history of process and craft unionism in chemicals is taken from Gill et al.'s authoritative account. cf. Gill et al., op.cit., pp.137-150.
80. Gill et al., op.cit., p.139.
been argued, lived in closed communities; a factor which could have encouraged the growth of trade unionism.\(^{(81)}\) However, these unions were small and their regional spread extremely limited. Most were subsequently amalgamated into one of the larger general unions. Indeed, amalgamation has continually played a role in rationalising and stabilising unionism in the British chemical industry.\(^{(82)}\)

The so-called "new-unions"\(^{(83)}\) often developed as a result of disputes and spread throughout the locality, as organisers tried to gain support by acquiring members in factories associated with the establishment in dispute. The aim of this was to prevent strike breaking by recruiting the mass of labourers. Chemical works are often located near ports, which were one of the centres of this "new-unionism", and in this way unionism spread to chemical workers. In particular this occurred during the second stronger wave of recruitment by the "new-unions" around 1911.

The unions that made the most progress in the chemical industry were those that had existing centres elsewhere and included Will Thorne's Gasworkers and the National Amalgamated Union of Labourers. This was the situation when "World War One ushered in considerable changes

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82. See the fate of the British Chemical Workers' Union described above, for example.
in the chemical industry, producing in its essential form the national collective bargaining machinery and trade union structure in existence today."

These changes were primarily the result of state intervention which favoured the introduction of collective bargaining, provided compulsory arbitration services and supported union recruitment policies. In Germany the necessities of the war economy provided a similar impetus for state recognition of trade unions and this led to a concomitant surge in union membership.

In Britain, as in Germany, a chemical employers' federation was formed at this time and the wages committee of this body together with Bevin were approached by Askwith after the first Whitley Report (85) with a view to establishing a joint industrial council for the industry. Whilst Gill et al. stress the importance of state intervention (86) another author views the employers' and unionists' willingness to accept the proposals as the most important factor leading to the formation of the Heavy Chemicals JIC. (87)

The executive board of this body was composed of representatives of the Chemical Employers' Federation and the unions which included Bevin's Dock, Wharf, Riverside and General Workers' Union; the National Union

84. Gill et al., op.cit., p.142.
86. Gill et al., op.cit., p.143.
of General Workers; the Workers' Union and the National Amalgamated Union of Labourers. Union recognition in the chemical industry was obtained therefore by union leaders who had their power base in other industries. This shows that on the process side of the industry "there was very little impetus or self-starting to union growth." (88)

The immediate post-war years were characterised by wage cuts, membership loss in the trade unions and increasing trends of industrial concentration amongst chemical manufacturers. Despite the burden put upon the JIC by the regular wage cuts the unions held to their belief that national negotiations were the best means of resisting them. However, it became increasingly clear that a rationalisation of union structure was necessary if the JIC's were to survive.

In 1922 the Transport and General Workers' Union was formed under Bevin's leadership by amalgamating a number of general worker unions. Later the Workers' Union became financially insolvent and was incorporated into this union greatly increasing its membership in the chemical industry. (89) The National Union of General and Municipal Workers was formed one year after the TGWU, its main parent organisations being the NUGW and NAUL which both sat on the Heavy Chemicals JIC.

"The amalgamations and national bargaining in chemicals were mutually sustaining. The survival and influence of the chemical and other JIC's were instrumental in the amalgamations of the TGWU and NUGMW, while union mergers were one reason why the chemicals JIC was able to stagger on. Above all, however, the JIC survived because the employers wanted it to survive." (90)

88. Gill et al., op.cit., p.143.
89. As did the TGWU's amalgamation of the Chemical Workers' Union much more recently.
90. Ibid., p.145.
In Britain, as in Germany, the 1920's were a time of intense economic competition and increasing concentration in the chemical industry. The process of concentration culminated in the formation of Imperial Chemical Industries in 1926. In order to keep price competition based on wage cutting to a minimum, the employers' federation which was dominated by the larger companies wanted to maintain uniformly effective national wage rates subject to district variations. Hence their desire to ensure the continued existence of the JIC. Thus, employers who had been traditionally opposed to unions ensured the survival of trade unionism amongst chemical process workers.

After the formation of ICI, however, its "increasingly progressive labour policies ... imposed strains on the Council since the firm employed over half the wage-earners in the industry. In 1931, ICI decided not to reduce shiftmen's rates, in 1932 it introduced a shorter working week and in 1933 it gave an increase in wages spontaneously. The decision of the ICI to give a common basic rate whatever the district in 1936 produced the break which was inevitable."(91) This was the origin of national collective bargaining for ICI as a company, which is one of the current features of bargaining in the British chemical industry.

Management policies of this type within the largest company in the industry succeeded in causing a large decrease in union membership which was perhaps felt to be unnecessary by many workers given the system of works councils which had been introduced in 1927. These

91. R. Charles, op.cit., p.178.
committees had no negotiating rights but dealt with complaints and the regulation of welfare and fringe benefits. (92) Here remarkable similarities with the situation in Germany are apparent. Management in both countries employed analogous social paternalistic policies to create loyalty amongst their workforces and weaken the hold of the unions. Furthermore, the agents of this influence were basically similar works council schemes, the major difference being the legislative backing and greater scope of the scheme in Germany. (93) These policies at ICI were undoubtedly one reason for the low degree of union organisation for many years within the British chemical industry.

Neither this type of policy nor the absence of a separate craft trades agreement until 1944 undermined craft unionism within the chemical industry in general, or ICI in particular. (94) In fact, "in relation to the general tenor of the argument, that chemicals union structure was largely determined by the hold which the general unions gained over the JIC and this in turn by employer and state support for collective bargaining at crucial junctures, the craft unions appear as deviant cases". (95) However, this is a general tendency within British industrial relations.

Trade unionism seems to have remained weak, and limited to the national level, in the British chemical industry for many years. This is reflected

93. With the growth of workplace union organisation during the 1950's these works councils at ICI lost their influence and meaning. Ibid., p.27.
94. Ibid., p.22 and Gill et al., op.cit., p.148.
95. Ibid.
in the low membership densities within the industry. This situation has altered radically, however, during the last two decades with the chemical industry being affected by the general upsurge in workplace labour organisation.\(^{(96)}\) The general survey material on this development was recently duplicated for the chemical industry\(^{(97)}\) and this provides confirmation that shop-steward organisations and plant level bargaining as well as grievance handling are widespread throughout the chemical industry although activity increases generally in larger establishments.\(^{(98)}\)

The relative unimportance of PBR systems within the chemical industry has been noted above\(^{(99)}\) so that the source of the stimulus to workplace unionism must be sought elsewhere. Productivity bargaining was first applied in Britain within the oil industries and soon it found extensive application within other capital intensive industries, including chemicals.\(^{(100)}\)

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\(^{96}\) It would be beyond the scope of this thesis to consider this general trend, which is well-known. For a recent review cf. H.A. Clegg, 1979, *op.cit.*, Chapter 2.

\(^{97}\) This survey covered 126 chemical establishments employing around 60,000 workers and reflecting the diversity and complexity of the British chemical industry by region, section of the industry and grades of employee. Gill et al., *op.cit.*, pp. 63f, 128.


\(^{99}\) It was confirmed by Gill et al., *op. Ibid.*, p. 129.

Prior to the introduction of productivity bargaining by management, the economic situation and tightness of the labour market had increased the influence of shop stewards in workplace industrial relations.\(^{(101)}\)

Motivation for management to introduce productivity bargaining can be found in a desire to reduce labour costs and to regain control of industrial relations in a planned way.\(^{(102)}\) In fact, it served to institutionalise and strengthen the trends towards the decentralisation of power within the trade unions, and in chemicals to provide the springboard for a rapid increase in trade union membership.

It is interesting, therefore, that productivity bargaining spread rapidly in capital intensive industries like chemicals where labour costs are relatively unimportant\(^{(103)}\) and where trade unions were not particularly powerful at the workplace. However despite this, productivity bargaining became very widespread within the industry,\(^{(104)}\) although the influence of government support for this form of negotiation should not be underestimated. For three and a half years in the late 1960's productivity bargaining was one of a small number of


103. It has been estimated for example that in British Rail a 5 per cent increase in wage rates adds 3 per cent to total costs, but in a modern oil refinery the same increase in costs would allow a 20 per cent increase in wage rates. Jones and Golding, "Productivity Bargaining," \textit{Fabian Research Series No.257}, London, 1968, p.2.

104. In 1971 61 per cent of companies under the Heavy Chemicals JIC were covered by some form of productivity bargaining. A.I. Marsh, "The Contribution of Employers' Associations," in B. Towers \textit{et al.}, \textit{op.cit.}, p. 86.
criteria which made pay settlements above the 'ceiling' level permissible. The NEPI and other government agencies also provided advice and support for productivity agreements.\(^{(105)}\)

Another factor which may have aided the spread of productivity bargaining within the chemical industry was the policy of the trade unions in the industry towards it. The NUCGW, ESTU/PTU and USDAW approved wholeheartedly of this type of bargaining and the TGWU gave its conditional support.\(^{(106)}\) Initially employers' associations had been opposed to productivity agreements since they foresaw a further diminution of their influence in bargaining. However, by 1967 the Chemical Industries Association negotiated a framework agreement on productivity bargaining with both process and craft unions which have otherwise negotiated separately.\(^{(107)}\)

Productivity bargaining has been considered to be one of the most important factors to influence industrial relations in Britain during the 1960's.\(^{(108)}\) As far as trade unions in chemicals are concerned, the number and locus of the majority of these agreements made it impossible for them to be negotiated by full-time union officials either nationally or locally. As a result, productivity bargaining increased

105. J.F.B. Goodman, "Government Agencies and Productivity Bargaining," in Ibid., p.243f. The importance of this factor is illustrated by the rapid demise of productivity bargaining once this support was withdrawn and by its rebirth under the latter stages of the 1974-1979 Labour Government's incomes policy.


108. e.g. Gottschalk and Mee, op.cit., p.103.
the level of management with which shop stewards were negotiating thus increasing their status and providing recognition for their role within workplace industrial relations. Shop stewards were accepted by management as the representatives of their work groups and were also faced with the problem of having to negotiate on a new range of substantive issues such as job evaluation and work study which might previously have been outside their experience. (109) Furthermore, the position of shop stewards was guaranteed since management required their support to maintain and implement the agreements over a period of several years.

It can be seen, therefore, that the explanation of the development of trade unionism in chemicals put forward by Gill and his colleagues based upon employers' and state support for collective bargaining (110) is more generally applicable than envisaged by them since it also applies to productivity bargaining whilst they were referring solely to national bargaining.

In Germany productivity bargaining between management and unions would be impossible because of the works constitution legislation which places many of the issues tackled under productivity bargaining within the sphere of responsibility of the works council. (111) Furthermore,


110. Gill et al., op.cit., p.148. For a case study of the growth of unionism in a chemical works which illustrates the important role played by management and where a numerically strong yet impotent workplace organisation developed cf. Nichols and Beynon, op.cit., p.109ff.

111. Such as overtime, redeployment, reductions in manning, hours worked, work study, introduction of new technology, etc.
union membership clauses, which were sometimes incorporated into the productivity agreements in order to induce the unions to make counter-concessions, are illegal in Germany and so this means of strengthening unionism cannot be used there. In Germany, state involvement in industrial relations has served to increase the effects of technology and management policy by further weakening workplace unionism. In Britain, on the other hand, state involvement was first responsible for helping to create national negotiating machinery and then supported management policy which required strong unions at the workplace in order to achieve agreement with the workforce and subsequently to operate the agreements. In this way the difficulties imposed on trade union organisation by the production technology, the lack of trade union traditions and management resistance have been overcome.

Joint union negotiating committees were believed to be a prerequisite for productivity bargaining, and recent survey data indicates that it has left a legacy within the chemical industry for almost half of establishments had a joint negotiating committee. In this case no particular trend could be determined between the existence of such committees and the size of the establishment. In this way the formal divisions within union organisation are often overcome. Even where joint committees do not exist there is often extensive co-operation between the lay officials representing general workers and craftsmen.

113. Gill et al., op. cit., p. 130.
114. Unless otherwise stated this information was collected on visits to a number of British chemical companies but is based primarily on extensive interviews with union convenors at Growmore Ltd. Other case studies of workplace unionism in the chemical industry may be found in: I. Boraston, N. A. Clegg and M. Rimmer, Workplace and Union: a Study of Local Relationships in Fourteen Unions, London, 1975, pp. 76ff, 99ff.
To-date there is less co-operation between these groups and staff representatives - as shop stewards within the white-collar sector are usually known. This reserve may well be caused by the vigorous recruiting drives of the white-collar unions like ASTMS which bring them into rivalry with the more established unions. Nevertheless, it would be a mistake to over emphasise the importance of formal union structure in workplace industrial relations.

Shop steward organisations now exist in chemical establishments of all sizes, with the average number of workers represented by one steward in the order of 37. However, the full-time convenors, - i.e., senior stewards - who have been elected by the body of the shop stewards to represent them, are only found in the larger chemical establishments. Where full-time convenors do not exist management is often prepared to give the more senior stewards considerable time-off for their duties. On the larger sites, such attitudes towards releasing stewards seem widespread, for as one industrial relations manager put it:

"We give them as much time-off as they need, though I do sometimes wonder if we go too far. Nevertheless I'm a great believer in full-time lay officials especially in big plants. This prevents being confronted by amateurs who don't have time to prepare their work properly." (117)

115. Depending on size of establishment the number varied between 31 and 41, although no pattern emerged. Gill et al., op.cit., p.131, own calculations. At Growmore Ltd. in a works with around 1100 employees, these results were basically confirmed as the ratio was 44:1.

116. These full-time convenors are released from their jobs and provided with office facilities by management; they are also paid by management in a similar way to works councillors in Germany. However, their role is determined by agreement and custom and practice rather than legislation. For survey data, cf. Ibid.

117. Interview MAN 3, June '79.
In this way it is probable that most stewards at Growmore Ltd. were released for between 2 and 5 hours per day in order to fulfil their representative function. The extent of release for union activities was a legacy of the negotiations for the productivity agreement where most stewards were engaged full-time on this task. This led later to a formal system of full-time convenors. Thus, in a similar technological environment to that at Agrochemie AG although on a larger site, British trade union lay officers spend daily almost as much time on union activities as German lay officers do every month. This clearly indicates a different level of involvement on the part of union lay officers at Growmore Ltd., a level which in terms of time spent exceeds that of all but the most senior non-full-time works councillors.

It is impossible to generalise on the nature of shop steward elections in the chemical industry, since there seem to be variations between localities, unions and from year to year. Some elections are held at the workplace, others in the branch, and their frequency varies considerably. One reason for variations in the frequency of elections is the lack of alternative candidates, so that the election simply becomes the ratification of the existing steward. Elections are sometimes only

118. It seems to have evolved at Growmore Ltd. that many shop stewards work in jobs from which they can be easily released. Manual union policy there also prevented chargehands from becoming stewards since it was felt impossible "to ride two horses at once". This contrasts considerably with the situation at Agrochemie AG.

119. The role of works councillors and German union lay officers in workplace relations are discussed in Chapter 5 above.
held when a steward resigns
even this does not always lead to elections. If nobody is prepared to take the job, the group may go without a steward for sometime, or else the previous incumbent will be persuaded to reaccept office.

121. The male pronoun is used here, since most manual employees in the chemical industry are male except in certain sectors such as pharmaceuticals. Even where high concentrations of female workers exist, male representatives are often elected. Interview TU 1, May '78.

122. For another recent account of shop steward activities, but within the engineering industry of B. Partridge, "The activities of shop stewards," Industrial Relations Journal, Vol.8, No.4, 1977/78, pp.28-42.
it would probably enter the appropriate disputes procedure. (123)

Gill et al. have investigated the nature of grievances which come to the attention of industrial relations managers, and their results are reproduced here in order to give some indication of the range of these issues.

Table 7.4.
Percentage of chemical establishments where industrial relations managers report the incidence of grievances (126 respondents). (124)

<table>
<thead>
<tr>
<th>Grievance</th>
<th>Frequent</th>
<th>Occasional</th>
<th>Rare</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pay claims</td>
<td>29.4</td>
<td>55.6</td>
<td>10.3</td>
</tr>
<tr>
<td>Pay errors</td>
<td>0.8</td>
<td>47.6</td>
<td>46.8</td>
</tr>
<tr>
<td>Loss of pay</td>
<td>0</td>
<td>18.3</td>
<td>37.3</td>
</tr>
<tr>
<td>Minor pay change</td>
<td>0</td>
<td>23.0</td>
<td>72.2</td>
</tr>
<tr>
<td>Job grading</td>
<td>15.0</td>
<td>36.5</td>
<td>43.6</td>
</tr>
<tr>
<td>Work allocation</td>
<td>11.9</td>
<td>34.9</td>
<td>60.3</td>
</tr>
<tr>
<td>Working conditions</td>
<td>22.2</td>
<td>47.6</td>
<td>25.4</td>
</tr>
<tr>
<td>Work standards</td>
<td>4.0</td>
<td>19.8</td>
<td>63.5</td>
</tr>
<tr>
<td>Timekeeping</td>
<td>19.0</td>
<td>48.4</td>
<td>27.8</td>
</tr>
<tr>
<td>Overtime</td>
<td>18.3</td>
<td>63.5</td>
<td>13.5</td>
</tr>
<tr>
<td>Discipline</td>
<td>16.7</td>
<td>65.9</td>
<td>12.7</td>
</tr>
</tbody>
</table>

Elsewhere working conditions and job grading have been established as the main causes of grievance claims in the chemical industry. (125)

It also seems, however, that those issues which are concerned with material rewards are also often the cause of grievances.

Although the shop stewards sometimes negotiate as a group, or more

123. Disputes procedures are discussed in greater detail below.
124. Gill et al., op.cit., p.133, own calculations.
frequently in the form of a joint negotiating committee with management, more frequent contacts take place between the convenors and industrial relations managers. These informal contacts appeared to be crucial for the efficient function of workplace industrial relations and led at Growmore Ltd. to an open, mutually respectful attitude between convenors and the industrial relations manager. Such meetings allow for detailed discussion of questions without being formally binding on either side since each side is bound respectively to the policy of the company or the shop stewards committee. Nevertheless, many problems were apparently prevented from coming to a head at these informal discussions.

This discussion of the role of shop stewards in the chemical industry has concentrated on manual unions. It has become clear that without the backing of formal legislation, shop stewards have achieved a representative function and an involvement in industrial relations which far exceeds that of union lay officers in Germany and which approaches the position of works councillors. However, since shop stewards are not restricted by law in the use of sanctions and may often rely upon high union membership densities, their position is probably much stronger than that of works councillors even when their extensive

126. For the range of such negotiations which are concerned particularly with financial issues as well as the organisation of work cf. Gill et al., op.cit., p.133.

127. Generally a pair of convenors is involved since this prevents suspicion between the union lay officers. If the works is not large enough to have two convenors from each of the major union groupings, then craft and general worker convenors will often meet management together.

128. Except where they have recently taken over the role of safety representatives, something which seems quite common. cf. V.A. Broadhurst, "What the manager needs to know about safety reps", Works Management, Aug. 1978, p.30ff.
co-determination and consultation rights are taken into consider-
ation. One reason for this could be that shop stewards in Britain
exercise legitimate authority through their constituents.

The discussion of trade unionism in the British chemical industry has
concentrated on manual employees. One of the striking features, how-
ever, of recent labour relations in this industry has been the rapid
growth in union membership amongst white-collar workers. This compares
with the situation in the German chemical industry where, although
there has been some growth in recent years, with the exception of
supervisory and managerial white-collar grades, white-collar employees
have been particularly difficult to recruit as union members.

These difficulties have been experienced by both the German Salaried
Staff Union and the Chemical Workers' Union, whilst the Association of
Salaried Academic and Senior Managerial Staff in the Chemical Industry
has been able to expand its membership considerably over the last twenty
years. Given the fragmented nature of white-collar union organ-
isation in Germany and in Britain it is not possible to give an
accurate assessment of the union membership density within this group
of chemical employees. Despite this, Gill et al. have demonstrated that
there has been a rapid growth in Britain, so that by 1975 36 per cent

129. The use of industrial action in the chemical industry is
reviewed below. On participation and consultation in the
British chemical industry cf. R. Pennock, "ICI's total
approach", Industrial Society, Feb. 1978, p. 14f; CIA,
Submission to the Committee of Inquiry on Industrial De-
mocracy, Doc. 103/76, London, 25.3.1976 and GMWU, UK

130. cf. Appendix 1, Table 3.
131. cf. Chapter 2, Section (iii)b.
132. cf. Appendix 1, Table 10.
of staff in CIA federated firms were covered by collective agreements.\(^{133}\)

Since this time, empirical evidence seems to indicate that white-collar union densities in chemicals have continued to increase.\(^{134}\)

Besides ASTMS, the chemical membership of which has been detailed above, the main unions to organise white-collar chemical workers are the white-collar subsiduaries of the three general unions with extensive membership in chemicals: the Association of Clerical, Technical and Supervisory Staffs (TGWU); the Managerial, Administrative, Technical and Supervisory Association (GMWU) and the Supervisory, Administrative and Technical Association (USDAW). In addition to these unions, the Association of Professional Scientists and Technologists (APST),\(^{135}\) which might be described as the British equivalent to the VAA, has around 8000 members almost entirely within the chemical industry.\(^{136}\)

APST can trace its origins to 1971 and the British Association of Chemists, a fairly insignificant professional association which amalgamated with APST soon after its birth in 1970.\(^{137}\) Nevertheless, its success has been limited mainly to ICI.

\(^{133}\) This does not include ICI establishments where considerable white-collar union recognition has now been granted. Gill et al., op.cit., pp.158f and 178f.

\(^{134}\) Particularly Interview TU 10, May '78.

\(^{135}\) One respondent stated that this organisation has now been renamed the Association of Managerial and Professional Staffs. Interview MAN 6, July '79. Also cf. M. Weaver, "Unions 'Would you strike?' survey among managers", Daily Telegraph, 12.12.1978, p.6.

\(^{136}\) Gill et al., op.cit., p.169ff.

\(^{137}\) The Royal Institute of Chemistry played a leading role in the foundation of this organisation which retains strict entrance qualifications like the VAA. Both might be termed white-collar "craft" unions. Gill et al., op.cit., p.173ff.
The main factors influencing white-collar union membership in Britain have been identified as employment concentration, employer recognition and government action, although this same study established that the chemical industry was an exception since despite good pre-conditions for extensive union organisation caused by high employment concentration, union membership was low. (138)

"The most useful of Bain's variables in explaining the relatively underdeveloped state of staff unionism in chemicals prior to 1964 is employer recognition. Generally speaking, chemical employers were unwilling to recognise the independent white-collar organisations which attempted to recruit in the industry and encouraged as alternatives the formation of dependent organisations more amenable to company control." (139)

Employers' attitudes in the chemical industry were subject to continuous revisions during the 1960's as a result of alterations in the attitudes of white-collar workers towards union membership (140) and because government intervention has supported extensions of collective bargaining to the white-collar sectors. (141)

The disparity of attitudes amongst chemical employers still present in 1972 prevented a national "framework" agreement from being agreed with the unions. The CIA did, however, issue a revised document on recognition in March 1973, the principle aim of which was to ensure that the

139. Gill et al., op.cit., p.157.
140. These changed attitudes were provoked by the reduction of status enjoyed by white-collar staff; loss of differentials mainly caused by incomes policy and productivity bargaining, growth of the white-collar sector and increasing bureaucracy in this area leading to anonymity; increased fear of redundancy and legislation leading to a formalisation of employment relations as well as the feeling of need for the professional assistance of a trade union when dealing with employers. Ibid., p.164f and CIR Study No.3, Recognition of White-collar Unions in Engineering and Chemicals, London, 1973, Paras.18-22.
141. This includes the Donovan Commission, the Industrial Relations Act, the CIR, and ACAS set up under the auspices of the 1974 Employment Protection Act.
"development of collective bargaining for staff in the chemical industry is orderly, having particular regard to the need to minimise the risks of inter-union conflict and fragmented bargaining, whilst recognising the individual's rights to belong or not to belong to a trade union." (142)

Empirical investigations have indicated that the principles of this policy are generally followed within the chemical industry, with white-collar unionisation being allowed to develop "naturally, site by site . . . although we might intervene to prevent multi-unionism becoming a problem." (143)

In order to facilitate this "natural" development a "binary formula of recognition was confirmed". (144) As the first stage a union might be given representational rights for a particular group of staff if the union's membership was insufficient to justify negotiating rights which are the second form of recognition. (145)

This policy has remained intact since then and has served to guide management in their approach to staff unionism. Collective bargaining has developed in a multitude of ways and at a variety of levels, such as site, division or company. Although this does not always conform with CIA recommendations, (146) union growth is rarely uniform throughout

143. Interview MAN 6, July '79.
144. Gill et al., op.cit., p.166.
145. CIR Study No.3, op.cit., Para.118.
146. Which are "that negotiating rights should only be granted at the level in the company at which the pay and conditions of the staff concerned are determined." Ibid., Para.128.
multi-site companies and some management feel it unwise to force the issue in areas of under-developed unionisation or to delay recognition too long where the union is particularly strong. (147)

The "battle for recognition" by white-collar unions sometimes leads to intense inter-union rivalries, particularly as a result of the "general union" recruiting policy of ASTMS which is often quite aggressive. Although the "battle for recognition" can take a variety of forms, it has been summarised that "this process of staff unionisation in the chemical industry can be said to possess several features. Firstly, unions compete among themselves or form 'consortia' to recruit sizeable memberships and thus present themselves to employers as credible candidates for recognition. Secondly, employers attempt to influence their staff and the unions seeking to recruit white-collar workers in order either to postpone the introduction of collective bargaining for staff or to ensure that the advent of union recognition and negotiating rights is accomplished in a way that is least harmful to managerial interests." (149)

In Britain and in Germany various alternatives of union membership are offered to white-collar workers in the chemical industry. German employees may choose between industrial union, general white-collar union (DAG) or "craft" white-collar union (VAA) membership, provided that they

147. Interview MAN 7, Apr. '78.
148. For an example of this, cf. Gill et al., op.cit., p.178ff.
149. Ibid., p.168.
are suitably qualified for the latter. British chemical staff also have the choice of general white-collar union membership (ASTMS), "craft" staff union membership (APST) or they may join the white-collar subsidiary organisation of other unions active in the chemical industry. The development has taken rather different courses in the two countries, reflecting the general nature of union organisation in each country.

Industrial unionism is now firmly established in Germany but it has generally been unable to organise large numbers of white-collar staff who show a traditional antipathy to union membership. Although the VAA has gained considerably in strength over the last two decades, this has probably been caused more by the political discussions concerning the role of senior staff in industry particularly in connection with co-determination. It remains to be seen whether the Co-determination Act 1976(150) will bring further increases in the membership of this organisation. The VAA has also received positive encouragement in employers' association publications in order to channel senior white-collar staff who have shown increasing trends towards collectivisation, towards the VAA rather than the Chemical Workers' Union or the German Salaried Staff Union. This collectivisation is further enhanced by the large employment concentration of senior white-collar staff in chemicals.

So far the trends towards status harmonisation between white- and blue-collar workers in the German chemical industry have not led to increased recruiting by the DAG, a white-collar union dedicated to protecting:

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150. The full provisions of this Act only took effect in 1978.
staff status. It has, however, led to increasing intra-union conflict within the Chemical Workers' Union. Should the reduction in differentials between these groups increase considerably, and were either the employers or government action to encourage white-collar workers to join unions, then there would seem to be a good chance that the German Salaried Staff Union might gain considerable membership within the chemical industry. Such a development would indicate an inability of the industrial union to represent the interests of disparate groups of members.

The possibility of such developments is indicated by the situation in Britain where incomes policy and productivity bargaining resulted in the erosion of differentials and staff status whilst government intervention has encouraged extensions of bargaining to the white-collar sector. This caused modifications in employers' attitudes towards staff unionism and has led to rapid union advances in recruiting white-collar workers. Those organisations which purport to represent staff interests in general or in particular have been especially successful in recruiting members and this has produced a situation analogous to that in the manual sector where general unions represent production workers and craft unions represent the skilled maintenance and building operatives.

Had a comparison of trade unionism in the British and German chemical

151. Between 1960 and 1978 differentials between average monthly earnings for white- and blue-collar workers in the German chemical industry were reduced by 5 per cent. Tables 3.12 and 3.13, own calculations.
industries been carried out at the time of Verma's investigation into chemical industrial relations in Britain, the similarities between the situation in the two countries would have been remarkable. Unions bargained with employers not within the establishment but at levels remote from the workplace - in Germany nationally and regionally whilst in Britain industry and company bargaining occurred at national levels. Union workplace organisation was weak and lacked traditions except for skilled manual workers.

A number of factors common to both countries were responsible for these similarities. The economic take-off of the chemical industry lagged behind that of other heavy industries and labour turnover was high as a result of poor working conditions and the unskilled nature of production work. This hindered the development of trade union organisations and also induced employers to introduce paternalistic yet progressive labour policies in order to retain workers. This had the additional advantage for the employers that it created loyalty for the company amongst the workers and countered the growth of trade unionism.

With increasing automation and technological advance chemical production technology has also contributed towards union weakness at the workplace. Working groups are small and scattered so that communication and recruitment is difficult. Regular personal contacts between workers and management lead to a personalisation rather than a collectivisation of industrial relations. Other consequences of chemical production technology can be the rather low manual job content for unskilled workers.

and improving working conditions. These circumstances together with above average earnings made possible by the successful economic growth and capital intensive nature of the industry encourage job satisfaction and reduce the motivation for union membership.

The workforce structure of the chemical industry generally includes only small numbers of craftsmen who have strong trade union ties and large numbers of white-collar workers who traditionally were difficult to recruit into the unions. This further contributed to trade union weakness in the chemical industry.

Government intervention in industrial relations has had considerable influence on trade unionism in the chemical industry in both countries, although its effects have been very different. In Germany the establishment of works council legislation at the time of rapid growth in union membership prevented the unions from gaining an important direct role in workplace relations. This situation was revived after World War Two and has been partly responsible for the weakness of trade union organisation at the workplace and their exclusion from involvement in workplace relations. In Britain, however, government intervention resulted in the establishment of collective bargaining for the industry and hence in the involvement of union leaders, the main locus of whose organisations were other industries, in chemical industrial relations. This, together with subsequent support from employers, was responsible for the development of the structure of manual trade unionism within the British chemical industry, a structure which is very dissimilar to that in Germany.
These structural differences reflect overall disparities in the development of trade unionism in the two countries, for whilst this development has been continuous and unbroken in Britain the dissolution of trade unionism under Hitler and its subsequent re-establishment in 1949 resulted in the adoption of an industrial union system in West Germany. The importance of formal trade union structure should not be over-stressed, however, although it naturally has consequences for industrial relations. Nevertheless, a unified union movement may be split by internal dissent whilst a multi-union organisation may cooperate and co-ordinate its action, as is often the case in workplace relations in the British chemical industry.

These similarities have been greatly reduced, however, by recent industrial relations developments in Britain. The growth of workplace bargaining and increase in importance of shop steward organisations during the post-war period of full employment created the pre-conditions for the establishment of strong workplace union organisations in the chemical industry. This did not take place, though, until the advent of productivity bargaining, a form of negotiation introduced by the employers and supported by government. Productivity bargaining led to an increase in the importance of shop stewards, for it was with this group of union representatives that management was forced to negotiate productivity agreements. Management also required the assistance of a strong shop steward organisation to ensure the implementation of agreements and this has proved to be the springboard for the development of effective workplace union organisations within the chemical industry. Employer recognition and government intervention were required, therefore,
before unions were able to overcome the constraints which up until this time had limited their growth. The same factors were also instrumental in providing the climate for the recent rapid growth in white-collar union membership in the British chemical industry.

The influence of management and employers' associations on industrial relations has often been apparent during this consideration of trade unionism in the chemical industry. It seems appropriate, therefore, to discuss their industrial relations role in greater detail.

(iii) Management in the chemical industry.

Discussion of the role of management within labour relations in the West German chemical industry revealed that they had a positive influence on the climate of relations due to their regular contacts with the workforce. This is particularly true of supervisors. The personnel function is firmly established in all but the smallest establishments, since it is the part of the management organisation which deals with the works council, and hence with a wide range of legal, personnel administrative, welfare and training issues. (153)

Multi-national companies are extremely common the chemical industry. (154)

It might be expected, therefore, that management practices have a certain amount of international character to them. On the other hand, it is

153. Chapter 2, Section (iii)b.
possible that management practices could diverge widely within a single country due to the importation of management practices from the parent countries of a wide range of multi-national concerns. Although neither of these hypotheses has been tested empirically, limited case study evidence seems to point towards the former. Since managerial organisation can be considerably influenced by production technology, and chemical process technology is international in character, the chances that management practices could be transferred internationally are further increased. Limited verification of this is provided by the apparent applicability of some of Woodward's findings to both British and German chemical companies visited in the course of this research.

Nevertheless, in recent years the character of management organisation within the British chemical industry has undergone considerable changes specifically with respect to the specialist personnel management function. This is illustrated by two statements from the Growmore Ltd. case study works:

"There have been a lot of changes on the management side in the last four years. We now deal with the Industrial Relations Manager rather than the Engineering or Works Manager, and he is the only one who can talk money". (158)

"An industrial relations manager is a must in any factory of size now, for he provides me with information and advice ... they are now an essential member of the management team although they've only arrived in the last four or five years". (159)


156. Concerning the length of the management hierarchy, the range of control of first-line supervisors, the form of decision making and the importance of specialists. Ibid., 1965, p.50ff. For a brief discussion of this cf. P.C. Verma, 1966, op.cit., p.251ff.

157. More specific research in a number of countries would test the validity of these hypotheses.

158. Interview TU 4, June '79.

159. Interview MAN 4, June '79.
The rapid expansion of the personnel and specialist industrial relations function has been demonstrated in a recent survey of 126 chemical establishments. Until the Second World War there was little call for personnel managers in industry generally and the situation in chemicals was certainly no different. State involvement in industrial relations during the war, together with an increasingly complex wage system, and changing workforce structure provided the stimulus for this expansion. After the war this trend increased with the expansion of workplace bargaining, the growth of union demands for involvement and information and the expansion of industrial relations legislation.

Personnel or industrial relations specialists have become customary in chemical establishments.

Table 7.5.

Chemical establishments with staff employed full-time within the personnel/industrial relations function. (163)

<table>
<thead>
<tr>
<th>No. of Workers Employed in Establishment</th>
<th>No. of Establishments</th>
<th>Percentage of Est. with Per./I.R. Manager</th>
<th>Percentage of Est. with Per./I.R. Staff</th>
<th>Percentage of Est. with IPN Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-99</td>
<td>24</td>
<td>25.0</td>
<td>66.7</td>
<td>4.2</td>
</tr>
<tr>
<td>100-299</td>
<td>42</td>
<td>42.8</td>
<td>92.9</td>
<td>19.0</td>
</tr>
<tr>
<td>300-599</td>
<td>28</td>
<td>57.1</td>
<td>96.4</td>
<td>71.4</td>
</tr>
<tr>
<td>600-999</td>
<td>12</td>
<td>91.9</td>
<td>100.0</td>
<td>91.7</td>
</tr>
<tr>
<td>1000+</td>
<td>20</td>
<td>100.0</td>
<td>100.0</td>
<td>65.0</td>
</tr>
<tr>
<td>Totals</td>
<td>126</td>
<td>56.3</td>
<td>90.5</td>
<td>42.1</td>
</tr>
</tbody>
</table>

160. Gill et al., op.cit., p.16ff.
161. Interview MAN 4, June '79.
162. Interview MAN 9, Dec.'77.
163. Gill et al., op.cit., p.64f, own calculations.
This level of industrial relations staffing may represent a large increase but it is not very high when compared with the situation in engineering. A large survey of engineering establishments carried out at the end of the 1960's showed that 87.3 per cent of them had a designated personnel manager although only 68 per cent of these managers were involved full-time in personnel work.\(^{164}\) Whilst the author has no empirical data to support the hypothesis, it seems likely that since this survey was carried out the level of industrial relations staffing in engineering has increased further.\(^{165}\) In the light of this comparison, the staffing of industrial relations in chemicals is still fairly underdeveloped.

Part of the explanation for the different levels of industrial relations staffing in the two industries may lie in the technological differences between the two industries. Due to the extremely high capital intensity of chemical manufacture, wage costs constitute a relatively small amount of total costs. This might lead to low industrial relations staffing. However, as another author comments, "the capital intensity virtually necessitates continuous production in order to spread the heavy fixed costs over as high an output as possible. Stoppages of work are ruinously expensive"\(^{166}\) so that the prevention of strikes remains the highest priority of industrial

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165. One reason for this supposition is the increase in labour legislation since this time which has made the employment of specialists even more necessary. \textit{of}. Ibid., p. 73f.

166. Ibid., p. 67.
relations managers in the British chemical industry. (167) There would therefore seem to be a great incentive to invest in personnel expertise, but this has not taken place.

Since the chemical industry in Britain has been relatively strike free, (168) it is possible that the staffing of industrial relations could be kept to a minimum for many years. Certain other factors could also have helped to keep the need for personnel specialists low. Process technology common in chemicals appears to be conducive to industrial peace and good industrial relations. (169) Furthermore, until recently trade unionism was weak at the workplace in the chemical industry and almost non-existent amongst white-collar staff so that pressure on management may not have necessitated industrial relations specialists. The changes in the level of union membership amongst chemical employees and the greater involvement of union officers in workplace relations probably account partly for the recent growth of industrial relations management in the chemical industry.

Until now no differentiation has been made between personnel and industrial relations functions. In practice, whilst many personnel managers undertake industrial relations activities as a part of their job, it is rarely true that industrial relations managers are involved in personnel administration or training, although they may be responsible for welfare, safety, etc. (170) In the German chemical industry,

167. 36.5 per cent of respondents gave this as their first priority compared with 24.6 per cent who named containment of labour costs. Ibid., p.68, own calculations.

168. See below.


170. Information gathered in visits to several British chemical companies.
and particularly in large establishments there is a great deal of specialisation within the personnel and welfare functions, although there is no industrial relations specialisation as such since this concept does not exist there. Nor is it really necessary since relations with the union at the workplace are practically non-existent and relations with the works council are considered a part of the normal personnel function.

In the British chemical industry the tone of management policies on labour relations was often set early in individual companies' developments. Whilst the origins of these policies sometimes vary considerably, a number of trends can be ascertained. Many companies adopted a "traditional paternalistic style in labour affairs ... No specialist labour relations job existed on the company's organisational chart but nevertheless directors and managers were expected to implement an explicitly formulated labour policy as a complement to their specialist functions..." (171) This labour policy was akin to the master and servant principle stressing the virtues of obedience to supervisors, and a rigid militaristic discipline at the workplace. Gradually welfare and fringe benefits were developed and included a whole range of sporting, social and cultural activities. Conditions and terms of employment were determined — and improved — solely on the initiative of management. Collective bargaining generally did not take place, although many companies decided to participate in the industry-wide collective bargaining machinery developed during and after the First

171. Gill et al., op.cit., p.55ff.
World War. However, plus-rate payments were often made to retain loyalty and remove motivation for union membership which was resisted from a fear of loss of control. This retarded the growth of trade unionism within the industry, although the situation has now changed radically since management often needed strong union organisations with which to engage in productivity bargaining.

Although some companies like Boots attempted to develop an "industrial community" with a more refined form of paternalistic welfare, which whilst not so extensive approached the form of social paternalism found in the German chemical industry at the time. Such developments might have occurred many years previously and the personnel practices in the industries become accordingly more refined. However, some of these policies and particularly the paternalistic ones are frequently encountered in the chemical industry in the present day.

Although not always typical of the chemical industry, "ICI has the most deeply embedded industrial relations traditions in the chemical industry and due to the policies and practices originating in the Brunner-Mond combine can be considered to be the 'founding father' and the model of chemical industrial relations. As the paradigm of chemical industrial relations, therefore, whose labour policies have had a vital influence in setting the tone of relationships between employers and unions throughout the chemical industry, it is difficult to conceive of any significant innovation in chemical industrial re-

172. Ibid., p.56ff.
173. Ibid., p.59ff.
lations which does not originate with the ICI group or is not soon replicated within it." (175)

Brunner-Mond was responsible for the reduction in shift length from 12 to 8 hours, and in cutting the length of the working week, whilst intensifying the workload to offset the effect on labour costs. Such policies had repercussions throughout the industry; other initiatives stemming from Brunner-Mond/ICI include fostering a national employers' organisation, and the Mond-Turner talks. (176) Within ICI this consultative tradition became well established with the works council system which could deal with a range of activities, such as "the comfort, safety, health and well-being of all employees ... including matters affecting sport and recreation; the ways and means by which time, material or expense may be saved; the administration of the sick benefit, benevolent and hospital fund schemes." (177) These councils were excluded from considering terms and conditions and could not engage in negotiations. During the 1930's ICI defied CEF policy, improving wages and conditions unilaterally, often in works otherwise surrounded by high unemployment.

"Benign paternalism thus constricted the potential area of negotiation. As the Chief Executive of the Central Labour Department put it in 1928: 'the value of the company benefits, privileges and concessions depends on the workers recognising them as voluntary acts by the company and not as the product of negotiations with the trade union'" (178)

175. Gill et al., op.cit., p.121.
176. Ibid., p.82ff and H. Pelling, op.cit., p.188f.
178. Gill et al., op.cit., p.87.
Union membership stagnated or declined as a consequence of these policies until after the Second World War.

In recent years consultation and participation have gained support within the chemical industry as a whole. The CIA advocates its member companies develop "systematic consultative procedures to cover all employees, whether they are blue-collar, white-collar or members of management, to ensure that all have an opportunity to influence decisions which affect them." (179) The major stimulus to the expansion of such consultative procedures, which seem to be quite widespread in the chemical industry, was productivity bargaining which led to both formal and informal procedures for consultation. (180)

Some doubt must remain, however, about the efficiency of these committees especially on the process side where shift work creates problems for communication. (181) These committees have retained the principle of not permitting negotiations with the representatives, (182) who are often shop stewards or convenors. Company, group and divisional committees provide the opportunity for these lay officers to exchange information outside the official meetings and can be used to co-ordinate strategies around the company. (183) The range of issues considered on consultative committees varies, as does the willingness of management to release

179. CIA Code of Practice on Communication and Consultation, March 1975, quoted in CIA, Submission to the Committee of Inquiry on Industrial Democracy, op.cit., p.6.
180. Ibid., Interview MAN 10, Jan.'78.
181. Interview MAN 1, May '78.
182. Interviews MAN 6, July '79; MAN 7, April '78; TU 9, Jan.'78; TU 11, June '78.
183. Interviews TU 2, TU 3, June '79.
information; in multinational corporations this seems to be parti-
cularly limited. (184)

The consultative procedures in the British chemical industry have
developed as a result of union pressure and management's belief in
their usefulness. (185) These voluntary mechanisms contrast consider­
ably with the situation in West Germany where co-determination and the
works constitution, based upon legislative regulations, dominate the
scene. Although industrial democracy was once a topic of controversy
within British industry both amongst managers and trade unionists, it
seems most unlikely that any legislation on this topic will enter the
statute books in the near future. It is even less probable that the
Bullock proposals (186) will be adopted and this will please both em­
ployers and unionists in the chemical industry. (187)

Whilst "the chemical industry has a fairly well developed system of
consultation, ICI have the best since they have committees coming out
of their ears right up to central level." (188) Despite ICI's apparently
enlightened progressive approach, one feature of their current in­
dustrial relations management policy reflects the traditional antipathy
towards trade unionism. (189)

184. Interview TU 14, June '78.
185. For example, cf. Gill et al., op.cit., p.68 and J. Roeber,
        op.cit., p.256ff.
186. cf. Lord Bullock (Chairman), Report of the Committee of Inquiry
        on Industrial Democracy, op.cit.
187. cf. GMWU document, The GMWU, the Bullock Report and Industrial
        Democracy, Esher, 1977 and "Bullock sparks chemical reaction,"
        Chemistry and Industry, 5.2.77, p.88.
188. Interview TU 13, Aug.'78. cf. "Bullock: Examination Continued,"
        IDS Brief 103, Feb.'77, p.3f.
189. C. Gill, R.S. Morris, J. Eaton, "Managerial Control and Collective
        Bargaining: some 'political' aspects of job evaluation in a multi­
Job evaluation has a long history at ICI where it has avoided being eroded by market pressures because of the stable or declining workforce in chemicals accompanied by higher unemployment levels nation­ally. (190) The ICI scheme is a form of unilaterial regulation which is under the control of management:

"Firstly, management has taken the initiative in the inception of the schemes and the formulation of their guiding principles ... Secondly, central and divisional personnel departments administer the operation of the schemes. Thirdly, managerial personnel staff and the assessment panels (191) deliver the final judgment." (192)

Gill and his colleagues have viewed this system of job evaluation as a form of "employer conciliation" and it certainly seems to function as such since it is used by management to regulate situations which might lead to industrial action in a way where a constitutional decision is given after a cooling-off period that could extend for five months. (193)

At the same time, however, it would be misleading to present the ICI job evaluation scheme as totally within management control. The unions have consented to the system and do provide representation for their members whose jobs are being reassessed. Furthermore, should disagree­ment arise from the assessment the unions are involved in both informal and formal disputes procedures which also apply in these cases. (194)

In the German chemical and allied industries job evaluation techniques are becoming increasingly more common. In 1971 some 22.5 per cent of

190. Ibid., p. 52f.
191. Which are composed entirely of senior management. Ibid. p. 53.
192. Ibid., p. 54.
193. Ibid.
194. Ibid., pp. 54-56.
establishments surveyed by the Chemical Workers' Union employed some type of job evaluation whilst 48.6 per cent of establishments had an incentive bonus system. Since then this trend has continued with the co-ordination of job evaluation and incentive schemes becoming more frequent. There has also been a trend to incorporate both types of system into the works council agreements for monthly payment of wages. Since methods of payment fall under the social co-determination rights of the works council, these systems require their agreement. This has caused the Chemical Workers' Union to employ full-time officers to advise the works councillors and to introduce a large educational programme. If the British union officials are to cope successfully with these systems, then a similar course of action would seem advisable.

Although the role of industrial relations management has increased in the chemical industry in recent years, senior line management apparently spend more of their time on industrial relations activities than was previously the case. This is possibly a reflection of the greater involvement of unions and their officers in workplace industrial relations.

Plant managers in the British chemical industry must rely upon the labour

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196. GB 72-75, op.cit., p.392f.
197. For example, cf. Bayer AG (ZB-Personalwesen), Monatslohn für Zeitlohner, Leverkusen, 1975.
200. At Growmore Ltd. the Engineering Manager stated that whereas his job was once composed 95 per cent of engineering and 5 per cent of industrial relations, it is now split 60 per cent engineering to 40 per cent industrial relations. Interview MAN 4, June '79.
force which works for them since without them the sophisticated technology employed in the production plants is useless. (201) Plant managers jobs are not therefore, simply a matter of 'juggling' the technical and economic factors, although this remains their primary concern; they need man-management skills. (202)

An increased stress on the economic aspects of chemical production has been introduced by company management from the era of productivity bargaining onwards. Chemical plants are often treated as isolated economic units, buying and selling raw materials, products, etc. from other plants on the same site. Individual plant manager's success, or lack of it, is noted by the company and in order to deal with the economic administration of the plant they have been forced to plan and co-ordinate from within an office rather than be involved in the plant itself. Even though managers might be in favour of economising production, they regret the loss of contact with the men. (203)

The workforce at Chemco's Riverside works realised there were constraints on management and categorised them into two groups, "bad bastards" or "bastards", where "'bad bastards' are managers who behave like bastards because they are (sic.) bastards. Common or garden 'bastards' are men who find that, as managers, there are unpleasant things they have to do." (204)

201. Nichols and Beynon, op.cit., p.33.
202. Ibid., p.31ff and Interview MAN 2, May '78.
203. Nichols and Beynon, op.cit., p.34ff and Interview MAN 4, June '79.
204. Nichols and Beynon, op.cit., p.34.
Whilst there is no exact empirical basis for it, the impression gained from the author's investigations is that the latter group are in the majority in the chemical industries in Britain and in Germany.

In the German chemical industry the VAA has developed considerable membership amongst senior staff and managers with academic qualifications. The concentration of such staff in the industry and the support of the employers' association seem to main reasons for this. Although APST can be considered to have received some senior support within ICI and has gained membership within this company, its success elsewhere has been limited. On the other hand, whilst Nichols and Beynon could confidently report at the beginning of the 1970's that "joining a union ... for a manager ... is a contradiction in terms," this no longer seems to be the case. Many plant managers and their equivalent grades have now joined AMUS, and unionism seems to be "creeping up the tree". This trend has been reported elsewhere, after consideration of developments in the chemical and other industries, and has been explained as follows:

"The increasing concentration of employment, more favourable attitudes of employers to white-collar unions, changes in labour law, continuing problems with the management of the economy and the effect on pay differentials and the development of defensive managerial unions with a moderate character are seen as the main factors explaining the growth of managerial unionism." (208)

205. Interview TU 10, May '78.
207. Interviews MAN 3, MAN 4, June '79; MAN 6, July '79.
This argument seems generally applicable within chemicals where the possible liability of managers under the Health and Safety at Work Act has apparently contributed towards management desires for the security of union membership. Similar problems have been experienced amongst supervisory grades where other factors have contributed to the insecurity resulting from recent legislation.

Whereas in Germany the supervisory hierarchy still seems to be firmly established, in Britain considerable rationalisation is underway. Previous grades such as superintendent, senior foreman, and assistant foreman have been erased from the organisational chart in many companies, the term "foreman" being commonly replaced by supervisor. In general, shift supervisors have been retained, and there might be a senior supervisor who works days in addition.

Allied to this rationalisation has been the feeling of lost status amongst older foremen who remember when to receive a white-coat was to join the aristocracy of labour. In addition, the growth of workplace bargaining has led to the foreman being bypassed on industrial relations matters, since negotiations take place with more senior, or industrial relations management. This level of management has then not always been capable of tackling the problem of communicating

209. Interview MAN 4, June ’79.
210. cf. Nichols and Beynon, op.cit., p.45ff and at chemical companies visited by the author.
211. Interviews MAN 2, May ’78; MAN 5, TU 6, June ’79.
212. Nichols and Beynon, op.cit., p.55ff, Interview MAN 3, June ’79.
213. Interviews MAN 2, May ’78; TU 2, June ’79. Although the supervisors do retain a position at the base of the grievance procedure, at Growmore Ltd. for example, 90 per cent of grievances are pushed up the line to the senior engineers and 30-40 per cent to the Engineering Manager, Interview MAN 4, June ’79.
with its own supervisors so that they receive information second-hand from the shop stewards.\footnote{214}

These trends have resulted in considerable unionisation amongst supervisory grades with most process supervisors joining ASTMS and the majority of maintenance supervisors joining the white-collar section of their respective craft union, although there is sometimes intense competition between these unions and ASTMS for the members.\footnote{215}

Process foremen join ASTMS as opposed to the white-collar sections of TGWU or GMWU to avoid a conflict of interests should the process workers be called out on strike. On the craft side, however, it generally requires a decision by the national executive to call foremen out on strike.\footnote{216}

Union organisation amongst supervisory staff should be strong and effective since it seems common in the British chemical industry for foremen to be ex-shop stewards.\footnote{217} However, unlike in Germany, union structure prevents the foremen from becoming the representative of their own work group. Indeed, local union policy sometimes prevents charge-hands from becoming shop stewards.\footnote{218} This is indicative of the role of both shop stewards and foremen in the British chemical industry where a duality of function would be bound to result in a conflict of interests.

\footnote{214. Interviews MAN 1, May '78; TU 11, TU 14, June '78.}
\footnote{215. Interviews MAN 2, May '78; MAN 7, April '78; MAN 9, Dec. '77; TU 2, TU 4, June '79; TU 13, Aug. '78.}
\footnote{216. Interviews TU 11, June '78; TU 14, Aug. '78.}
\footnote{217. As at Chemco, cf. Nichols and Beynon, \textit{op.cit.}, p. 51 and Growmore Ltd.}
\footnote{218. Interview TU 2, June '79.}
Supervisory staff are recognised as constituting the bottom of the management hierarchy, although it is possible for two separate types of foremen to develop, given the changing position of supervisors. These types have been categorised as "management men" - often young, technically skilled, and ideologically committed to the new management attitudes - and "tradition foremen" who regret the changes that have taken place and feel threatened by them. (219)

The main job for supervisors is to organise work and to check that it is carried out satisfactorily although trends towards "self-supervision" have been gaining momentum. (220) They are also responsible for safety in the plants and this can impose considerable strain upon them. (221) However, "the role of the foreman in formal industrial relations terms is just about nil, although on the informal side the role hasn't changed much, except they're more mellow; something which is a general trend." (222)

Some supervisors in the British chemical industry seem uncertain of their role. They lack the authority to make the decisions which shopfloor unionists are demanding of them, and thus lose status. With increasing technological complexity their independence of action in the plant seems increasingly limited (223) so that it seems that a better definition of role and training for the job are becoming extremely important.

221. Interviews MAN 2, May '78; TU 6, June '79.
222. Interview MAN 3, June '79.
223. Interviews TU 6, MAN 5, June '79; TU 14, June '78.
Although British chemical management is often at pains to stress the importance of supervisory staff, the changes which have taken place over the last fifteen years seemed to have undermined their position in a way which has not taken place in the German chemical industry. There the supervisory hierarchy has generally been retained, supervisors have a high, secure status, and are accredited with authority by management to deal with a wide range of technical issues. They are not greatly involved with industrial relations matters due to the bureaucratic handling of most issues via the works council system. Furthermore, training is thorough and generally a requirement for promotion to supervisory grades.

In the British chemical industry, industrial relations management was late to develop but has now become firmly established whilst in Germany the works constitution ensures the need for personnel specialists. The trends in Britain have been influenced by changing bargaining patterns within the industry, which themselves were caused by economic pressures, government action and alterations in management attitudes. Pressure for increased productivity influenced the jobs of plant managers and supervisors, and insecurity amongst these groups has resulted in a growth in union membership. In Germany, union membership amongst these grades is also high, but in this case industrial relations traditions, employer recognition, legislation and employment concentration were the main factors to cause it.
(iv) Employers' associations in the chemical industry.

Until 1965 there were two chemical employers' organisations in Britain, the Association of Chemical and Allied Employers (ACAE) which dealt with industrial relations matters and was the British equivalent of the Arbeitsring Chemie and the British Association of Chemical Manufacturers (ABCM) which was a trade association similar to the Verband der Chemischen Industrie. (224) However, "following the formation of the Confederation of British Industry ... bringing together the formerly separate confederations dealing with industrial relations and commercial matters, there were parallel mergers of employers' organisation in a number of individual industries, including chemicals ..." According to a recent publication by the Chemical Industries Association (CIA) as this new employers' association is known, it has the following role:

"At one time its work was limited to trade matters and the basics of industrial relations. Today, however, its span is much wider, taking in the social and political context of business; statutory and semi-statutory requirements; economic, financial and fiscal questions; the impact of lobbies and special interest groups; personnel matters of interest to all employees; the esteem of opinion formers, parliamentarians, the media and a host of other publics; and in looking to the future, training, retraining and education in the broadest sense." (226)

In order to fulfil this role the CIA engages in a wide range of activities which will be discussed presently. Although the British

224. Interview MAN 9, Dec.'77.
226. CIA, Activities Report 1976-77, London, p.1. Nevertheless, we are concerned here primarily with the industrial relations and related roles.
chemical employers' association covers a wider range of issues than
its German counterpart, it does not seem to have achieved quite the
same membership density within the industry. Around 270,000 chemical
employees work for firms which are members of the CIA. In 1976 there
were 296 such companies, this being a reduction of 48 from 1969 which
could reflect continuing trends towards industrial concentration.\(^{(227)}\)
Furthermore, there are two categories of full-membership, one of which
"does not necessarily entail collective obligations in all spheres of
activity",\(^{(228)}\) specifically as far as the national agreements are con­
cerned. A number of companies have chosen not to conform to national
agreements in this way including ICI, the chemical industry's largest
employer. Despite such flexible membership arrangements the CIA,
which has seventeen affiliated organisations covering various product
sectors,\(^{(229)}\) has not managed to achieve a membership density greater
than 90 per cent in terms of chemical companies, employing around 68
per cent of chemical employees.\(^{(230)}\)

The two categories of membership also appear to have existed in the
ACAE for ICI was able to rejoin the association in 1949 as a "com­
panionate member" having been outside the employers' organisation for
thirteen years.\(^{(231)}\) It reflects an attempt to regain the membership

\(^{227}\) Interview MAN 9, Dec.'77.

\(^{228}\) Gill et al., op.cit., p.6.

\(^{229}\) cf. Ibid., p.3f. Nevertheless, some sectors such as Soap,
Candle and Edible Fats, as well as Paintmakers have not
joined the CIA. Ibid., p.4f.

\(^{230}\) The CIA itself claims 90 per cent coverage. 68 per cent was
calculated from data in Interview MAN 9, Dec.'77 and T. Gill,
R. Norris and J. Eaton, "Employer organisation in the UK
chemical industry," Industrial Relations Journal, Vol.9,

of this important company(232) and has certainly proved a useful tactic in countering a loss of membership as a result of the growth in workplace and productivity bargaining.(233)

In Germany, the chemical employers' associations organise a far wider range of sectors of the chemical and allied industries. The principle of membership in employers' associations is also generally accepted, reflecting perhaps the importance of the negotiations between the Arbeitsring and the Chemical Workers' Union and of legal advice to the smaller companies, since legislation plays a very important role in German industrial relations.

Gill et al. have sought to explain the development of chemical employers' associations in Britain, and have rejected as inappropriate the more usual explanations of the incentives for membership in employers associations.(234) The "traditional incentive" for joining employers' organisations to counter the spread of unionism is invalidated by the late development of unionism and the overall climate of industrial peace within the industry. Similarly, the "peace-keeping or procedural incentive", can be discounted because of the peaceful industrial climate and since a disputes procedure was not introduced until 1927(235) ten

232. And to retain that of ABCM members who were not bound by ACAE agreements when the two organisations amalgamated. Ibid., p.259.

233. In the early 1960's some firms were forced to resign from employers' associations because of the introduction of productivity agreements. Cf. A.I. Marsh, 1972, op.cit., p. 84.

234. This analysis was first published in Gill et al., "Employer organisation ....", op.cit. and subsequently in Ibid., Industrial relations ...., op.cit., pp.29-49. Unless otherwise stated, the analysis presented here is abstracted from these two sources.

235. Further discussion of disputes procedures may be found below.
years after the formation of the first employers' association.\(^{236}\)
The "economic incentive" for employers' association membership which is based upon the elimination of competition in the area of labour costs may have had some limited historical validity in the chemical industry but its "explanatory value ... is largely undermined ... by the device of 'non-conforming membership' extended by the CIA to ICI and some fifty member firms in addition. This means that these firms are in no way bound by national agreements and retain complete autonomy in industrial relations."\(^ {237}\)

Gill \textit{et al.} argue convincingly that the state has been instrumental in encouraging employers' organisation in the chemical industry.\(^ {238}\) The basis of this argument is that "the origin of the CEF was closely connected with state intervention in a period when a wartime siege economy imposed controls over labour supply and labour costs..."\(^ {239}\) After the establishment of the JIC's the state imposed pressure on employers to join the association by threatening to withhold contracts. Although the Drug and Fine Chemical Manufacturers Association soon faltered without continued state support this was not the case for the CEF because of a desire to maintain the JIC bargaining procedures.

\begin{itemize}
\item \(236\). In 1918 renamed the Chemical Employers' Federation. P.C. Verma, 1966, \textit{op.cit.}, p.256.
\item \(237\). Gill \textit{et al.}, "Employer organisation ...," \textit{op.cit.}, p.43.
\item \(238\). This argument was first expounded by P. Jackson and K. Sisson, "Employers' Confederations in Sweden and the UK," BJIR, Vol.XIV, No.3, 1976, pp.306-323.
\item \(239\). Gill \textit{et al.}, "Employer Organisation ...," \textit{op.cit.}, p.44.
\end{itemize}
"As in World War One, state intervention in World War Two has been responsible for the second major expansory phase in chemical employer organisation. The new legal framework introduced after 1939 .... arrested the decline of the main chemical employers' organisation whose membership had contracted from 110 firms in 1920 to 70 in the late 1930's." (240)

This "new legal framework" included the Order 1305 which established compulsory arbitration and obliged employers to observe standard minimum conditions in industries where collective bargaining took place and thus removed the advantages of non-membership such as undercutting the national rate. Furthermore, unless employers were party to industrial bargaining they could not be classed as "essential undertakings" under the 1941 Essential Work Order. (241)

State involvement in the chemical economy was reasserted during the 1960's in an effort to stimulate an industry which exported a high percentage of its products and it was natural that the CIA should represent employers on the Economic Development Committee for the chemical industry. (242) Increased legislation in the industrial relations area has brought calls from members on the CIA for specialist expertise, management services advice and support in training, etc.

The training programme of the CIA which covers a large range of issues such as health and safety, general industrial relations, and the

240. Ibid., p.45.
241. Apparently ICI was large enough to be considered as an industry in its own right.
problems of staff unionism, for example. These courses are normally open to both shop stewards, managers and supervisors and some are run jointly with the unions. It was interesting that these training initiatives were viewed positively by trade union officers whilst German unionists had generally rejected the employers' courses for works councilllors. This may be a reflection of the poorer financial position of British unions and the subsequent difficulty in running education programmes themselves.

Another major feature of CIA work in recent years has been the advisory services it has made available to personnel or industrial relations managers. Much of this advice might be based upon internal surveys or on policy that has been drawn up by the association such as on white-collar unionism, or communication and consultation.

In both training and the provision of advisory facilities for its member companies the CIA has shown its ability to adapt to the changing role of employers' associations. This was also evidenced by their recognition of the importance of productivity bargaining, support for it in the form of a "framework" agreement and the establishment of a Joint Standing Committee to monitor the agreements.

243. CIA, Activities Report 1976-77, op.cit., p.8ff and Interviews MAN 6, July '79; MAN 9, Dec.'77.
244. Interviews TU 10, May '78; TU 13, Aug.'78; TU 14, June '78.
246. Interviews MAN 3, June '79; MAN 9, Dec.'77 and TU 15, June '78.
248. Gill et al., Industrial relations ..., op.cit., p.10f.
Although the "procedural or peacekeeping initiation" for membership in the CIA has been rejected, some managers did claim that the availability of the Chemical and Allied industries JIC disputes procedure was a major advantage of membership. (249) "Formal grievance handling in chemicals constitutes a process of joint regulation", (250) a principle which was constantly preferred in the solution of disputes in the German chemical industry whether in the joint conciliation procedure for disputes between the unions and employers' association (251) or in the regulation of workplace grievances. (252) No explanation of the reason for the choice of joint regulation procedures in the British chemical industry was given by Gill et al. but similar factors to those which lead to a rejection of third party intervention in disputes in Germany might be applicable, i.e. a desire to be fully responsible for any agreement and a feeling that external parties will only gain an incomplete understanding of the problem. (253) Employer conciliation of the type that used to exist in the engineering industries (254) probably did not come about due to an absence in the chemical industry of the circumstances under which this procedure was originally imposed. (255)

249. Interviews MAN 3, June '79 and MAN 6, July '79.
250. Gill et al., Industrial relations ..., op.cit., p.11.
251. cf. Chapter 4, Section (iii)b.
252. cf. Chapter 5, Section (iii)
253. In any case it seems that third party intervention in the early stages of disputes procedures in Britain is extremely rare, for no mention of this form of involvement was made in a recent summary of the structure of such bodies. H.A. Clegg, 1979, op.cit., p.229f.
255. H. Pelling, op.cit., p.112f.
The product market coverage of the chemicals disputes procedure is quite comprehensive as far as the chemical and allied industries are concerned since it extends to the Heavy Chemicals, Fertilizers and Plastics JIC's as well as the Drug and Fine Chemical Joint Conference. Although the membership of the CIA has remained relatively constant in terms of the number of companies since Marsh and McCarthy's investigations for the Donovan Commission, it is uncertain whether any non-conforming members of the CIA currently avail themselves of the national disputes procedure, or what the situation was in 1966. Gill et al.'s claim that the number of firms with access to the disputes procedure cannot, therefore, really be substantiated.

The disputes procedure which has endured unmodified in form since 1927 and which was last amended in 1961 has four stages. It is useful to quote the text of the agreement, section by section, since this aids comment. Clause (a) states:

256. Covering both process and maintenance workers cf. Agreement for Engineering and Building Trades Craftsmen, op.cit., p.8f; Chemical and Allied Industries JIC, Constitution, op.cit., p.9f. Gill et al., states that the procedure applies in the Glue and Gelatine JIC area since the JIC is now in a state of suspension, (Industrial relations ..., op.cit., p.12). However, several sources indicate that the Glue and Gelatine JIC is still in operation. B. Robinson, op.cit., p.9; TGWU, Report 1976, op.cit., p.11Off; USDAW, 31st Annual Report 1977, no place (Manchester), 1978, p.88.


259. IGCI certainly has its own disputes procedure with three stages: local, intermediate and headquarters conferences. Arbitration is also involved occasionally. This procedure is sometimes used to gain indirect pay increases via disputed job assessments. Gill et al., Industrial relations ..., op.cit., p.91ff and J. Roeber, op.cit., p.18f.

260. Gill et al., Industrial relations ..., op.cit., p.13.
"In the event of any dispute arising between an employer and his employees it shall be dealt with in the first place by the employees or the Trade Union shop representative on their behalf and by the appropriate representative of management." (261)

Whilst this might be seen as the standard preamble to a disputes procedure (262), its importance cannot be overstressed for it is at this level that the vast majority of grievances are resolved. It is quite likely that in order to ensure the maximum chance of domestic regulation of disputes (263), the company will introduce a number of stages into the domestic procedure as was the case at Growmore Ltd.:

"Individual matters will normally be raised by the individual with his supervisor in the first instance. If he is dissatisfied with the result or with progress he may after informing his supervisor, refer it to his local shop steward who may take up the case with the Manager concerned. Then if necessary the convenor can refer the matter to the Manager's Head of Department. Matters concerning a particular works or department will normally be raised with the Manager by the local shop steward or the Works Manager (264) by the convenor and the shop steward.

Matters concerning all general workers will be raised at the routine meeting of the Joint Committee.

If a convenor and a Head of Department or if the Joint Committee are unable to reach agreement, then the matter will be referred to the General Works Manager. Thereafter, the nationally agreed disputes procedure will apply.

It is agreed that pending resolution of matters in formal dispute, precipitate action will not be taken and the principle of 'status quo' will be observed by all parties." (265)

261. Chemical and Allied Industries JIC, Constitution, op.cit., p.9. (This also applies for the remaining clauses).
263. "We don't like washing our dirty linen in public and this increases the pressure to settle. The convenors don't like having the full-time officials involved and I don't like the CIA on the site." Interview MAN 3, June '79. The similarities between these views and those expressed in the German chemical industry in respect of works conciliation committees are most striking.
264. In practice the industrial relations manager would often become involved at this stage. Interviews MAN 4, MAN 4, June '79.
265. Agreement between management and TGWU at Growmore Ltd. Written disputes procedures are extremely common in Chemical establishments with more than 100 employees. cf. Gill et al., Industrial relations ..., op.cit., p.134.
The relative success of these formal procedures supplemented by any informal methods of grievance solution which might have developed locally is illustrated by the infrequency of local conferences at Growmore Ltd. Clause (b) of the disputes procedure regulates the so-called local conference:

"Failing a settlement within the works, the dispute shall be discussed by the Trade Union officer and by the appropriate representative of the management who may avail themselves of the services of the Chemical Industries Association."

This clause allows management to decide on the degree of external involvement in disputes regulation. Generally, CIA officials are not involved at this stage, something which should foster the establishment of more intimate relationships between regional/district union officials and local management. The lack of a regional structure within the CIA beyond area discussion groups and area productivity committees "explains why there is no local conference between regional employers and union officials parallel to the one which occurs in the ICI Procedure," and seems to be equivalent to that of the regional conciliation committee under the previous joint conciliation regulation in the West German chemical industry.

266. There are only a handful per year, and had only been one HQ conference in the last two years. Interview MAN 3, June '79.


268. The purpose of which is primarily an exchange of information. Interviews MAN 7, Apr.'78 and MAN, Dec.'77; also CIA, Activities Report 1976-77, op.cit., p.9. In fact, this absence of regional sub-organisations within the CIA contrasts with the federalised structure in Germany, the origin of which lies with the previous zonal and present state divisions in the country. Although this regional structure has an influence on the structure of collective bargaining in Germany, close co-ordination of policy and a high degree of centralisation mean that the differences between the employers' association in both countries are not as great as might first appear to be the case.

269. Gill et al., Industrial relations ..., op.cit., p.15.
The third stage in the chemical industry procedure carries the misnomer of HQ conference although it actually takes place at the place of the dispute. The name refers to the involvement of officials from the central organisations, as indicated by Clause (c) of the procedure:

"In the event of local agreement not being reached, the dispute shall be referred for settlement to the appropriate Trade Union headquarters and to the Chemical Industries Association."

Gill et al. view this stage as being designed to bring "new minds to bear" upon the problem (270) and as such it has a very similar function to the present type of joint conciliation committee which meets to resolve collective disputes in the West German chemical industry.

The final stage of the formal disputes procedure during the whole of which no industrial action is supposed to be taken (271) is regulated in Clause (d):

"In cases where the Trade Union headquarters and the Chemical Industries Association fail to arrive at a settlement, the dispute shall be reported forthwith to the Joint Secretaries of the Joint Industrial Council. Upon a dispute being reported, the Joint Secretaries shall arrange for the dispute to be referred to the Main or Group Joint Industrial Council, (272) or to such committee thereof as may have power to deal with the same."

The national level of the procedure can take two forms. Generally a Disputes Committee is formed which consists of two members of the Industrial Relations Board of the CIA whose company is not involved in the dispute and two representatives from JIC signatory unions whose members are also not involved. This procedure is felt to be very effective since

270. Ibid.
272. These Group JIC's (e.g. Fertilisers and Plastics) are now defunct.
the Disputes Committee is composed of experienced, knowledgeable persons who are not directly concerned with the dispute. Disagreement at this level is extremely rare. (273)

Should there be no unions neutral to the dispute then it is referred to a so-called Meeting of Signatory Parties where all organisations are represented and which decides on the issue. If necessary, the issue can be decided finally at the Disputes Committee or Meeting of Signatory Parties by taking a vote. (274)

A supplementary disputes procedure to cover productivity bargaining was introduced in 1967 and "with the decline in the regulatory powers of the subordinate councils, such as the Plastics, Fertiliser and Glue and Gelatine JIC's, (275) the evolution of the Joint Standing Committee on Productivity Bargaining as a conciliatory panel must be regarded as the major formal innovation of the decade." (276) The frequency with which this committee has been called upon to resolve disputes remains uncertain, however.

In fact, there is very limited statistical data available on the operation of the chemical dispute procedure. The following table presents the figures that are accessible.

273. Interviews MAN 1, May '78; MAN 3, June '79; TU 13, Aug. '78 and TU 14, June '78. Also cf. Gill et al., Industrial relations ..., op.cit., p.16.
274. Interviews TU 11 and TU 14, June '78.
275. See Note 185 above.
276. Gill et al., Industrial relations ..., op.cit., p.16.
Table 7.6.

References to the chemical industry disputes procedure 1960-78.

<table>
<thead>
<tr>
<th>Year</th>
<th>HQ Conferences</th>
<th>Disputes Committees and Meetings of Signatory Parties</th>
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<tbody>
<tr>
<td>1960</td>
<td>15</td>
<td>4</td>
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<tr>
<td>1961</td>
<td>15</td>
<td>3</td>
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<td>1962</td>
<td>22</td>
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<td>1977</td>
<td>44</td>
<td>14</td>
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<tr>
<td>1978</td>
<td>41</td>
<td>11</td>
</tr>
</tbody>
</table>

The growth of domestic bargaining during the first half of the 1960's probably explains the increase in the number of references to HQ conferences at this time and as has been noted elsewhere, the procedure seemed to increase in its effectiveness over this time as there was no parallel increase in Disputes Committees. In the second half of the 1960's the frequency in references decreased once more, perhaps as a result of incomes policy restricting the potential for disputes. Or could the Joint Standing Committee for Productivity Agreements have assumed an important conciliatory role during a period which represented the height of productivity bargaining? The change in industrial relations climate in Britain generally from 1970 onwards seems to have

been reflected in a rapid rise in disputes references in the chemical industry. The level of references has remained remarkably constant throughout the decade although the HQ conference stage in the procedure seems to have lost effectiveness. No satisfactory explanations for this has been found. (279)

Although the time required to achieve settlement seems to be continually increasing, few respondents considered this to be a problem, for as one manager put it:

"It would be rare for both sides to want a particular dispute to progress swiftly through the procedure. Issues generally reach local stages fairly rapidly but there is a gap before national levels are reached. This gap may be a couple of months if the issue is not serious or maybe a month if it is." (280)

One reason for this delay is the shortage of union manpower at national level - typically one officer will be responsible for a number of industries including chemicals, which does not only have the JIC disputes procedure, but the ICI procedure as well. This procedure has a similar incidence of references as the JIC procedure, although one union national officers' claim that "hardly a week goes by when I'm not fixing up a HQ conference at ICI," (281) is a slight exaggeration. (282)

Despite the potential influence of delays in settlement on unconstitutional action, there are no grounds for challenging the conclusion

279. The level of external arbitration within the chemical industry does not appear to be very high, however. Interview MAN 9, Dec.'77.
280. Interview MAN 1, May '78.
281. Interview TU 11, June '78.
282. cf. Gill et al., Industrial relations ..., op.cit., pp.18, 92.
arrived at by Gill and his colleagues (283) concerning the current validity of the statement by Marsh and McCarthy that:

"While stressing again that no procedure can be expected to be universally acceptable, it cannot be doubted that in general, procedures in this part of the chemical industry are regarded as satisfactory by the signatory parties." (284)

This discussion of disputes procedures has been limited to manual workers since the CIA is not involved in those procedures which have been agreed for white-collar staff. Such procedures normally cover the same unit as that for which bargaining takes place, but are often limited to a particular company. (285)

The disputes procedures in the British and West German chemical industries are primarily products of the two national systems of industrial relations. In Germany, the Works Constitution Act provides mechanisms for the settlement of most grievances arising from workplace relations, and the labour courts can deal with the remainder as a result of legal distinctions between industrial relations matters. Furthermore, joint conciliation procedures have been developed to provide a means of resolving problems arising from the negotiations between the Arbeitsring Chemie and the Chemical Workers' Union. In Britain, the chemical disputes procedure which has been autonomously agreed upon by the parties concerned is empowered to regulate individual and collective grievances arising from the workplace, national and any other negotiations. Despite these differences, however, the principles behind the actual settlement

283. Ibid., p.18.
of disputes are common to both industries. Above all, the parties involved in labour relations at whatever level desire to retain full autonomy for the resolution of the dispute for as long as possible, and the systems developed envisage the joint regulation of grievances. This reflects the general tenor of industrial relations in the chemical industries of both countries.

One measure of the effectiveness of disputes procedures must lie in the incidence of industrial action, particularly from the point of view of the employers, and this topic will be discussed in the next section.

The structure of employers' associations in the British and German chemical industries diverges considerably and yet their functions in the industrial relations field are very similar. They engage in collective bargaining and disputes settlement with the unions, although the bargaining structures do differ somewhat, as do the extent of the disputes procedures. Furthermore, the employers' associations provide legal, educational and public relations support to their member companies.

The similarities in the role of chemical employers' associations in the two countries have, in fact, increased considerably in the last two decades. This has been caused by the CIA's adaption to the changing industrial relations scene in Britain. In Germany, on the other hand, the role of the chemical employers' associations is well established and has not changed much in recent years.
(v) **Industrial action in the chemical industry.**

It is well-known that the chemical industries in Britain and Germany are not especially strike-prone. This could be a result of the effectiveness of the disputes procedures, particularly as far as unconstitutional industrial action is concerned. Unfortunately, very little direct data is available on the incidence of unconstitutional disputes in the chemical industry. (286) A survey of 126 chemical establishments employing around 60,000 recently determined that 112 stoppages had taken place over a five year period (287) for which official statistics reported only 240 stoppages in the whole chemical and allied industry. Since it would be unlikely that chance had selected the most dispute prone establishments in the industry, it must be concluded that industrial action is more frequent in the chemical industry than official figures might lead us to believe. Since it is also probable that official industrial action would be included in government statistics, the disputes not accounted for are probably unconstitutional.

Other forms of industrial action short of a stoppage of work might also take place, particularly in an unconstitutional context. Indeed, such forms of action as overtime bans, work-to-rule, etc. can be extremely effective in the chemical industry since they are often sufficient to close down production without costing the workers their full wages. (289)

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286. The paucity of statistics on industrial disputes in Germany was also commented above.


289. Interviews MAN 2, May '78; MAN 6, July '79; MAN 7, Apr.'78; MAN 10, MAN 11, Jan.'78; TU 2, June '79.
The reason for the effectiveness of overtime bans in particular are the low manning levels in production which often require overtime to cover for sickness, holidays or absenteeism. This probably explains the greater incidence of such action in the chemical industry.

Table 7.7.

Industrial action by size of chemical establishment over a period of 5 years. (291)

<table>
<thead>
<tr>
<th>No of Workers Employed</th>
<th>No. of Establishments</th>
<th>Average No. of Strikes per Establishment</th>
<th>Average incidence of other forms of industrial action per Establishment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-99</td>
<td>24</td>
<td>0.375</td>
<td>0.25</td>
</tr>
<tr>
<td>100-299</td>
<td>42</td>
<td>0.619</td>
<td>1.14</td>
</tr>
<tr>
<td>300-599</td>
<td>28</td>
<td>1.214</td>
<td>2.57</td>
</tr>
<tr>
<td>600-999</td>
<td>12</td>
<td>1.333</td>
<td>2.08</td>
</tr>
<tr>
<td>1000+</td>
<td>10</td>
<td>1.350</td>
<td>1.95</td>
</tr>
<tr>
<td>Totals</td>
<td>126</td>
<td>0.888</td>
<td>1.51</td>
</tr>
</tbody>
</table>

Such results have led to the conclusion that "there is a direct relationship between establishment size and dispute-proneness, with an initial rise in dispute-proneness with increasing size of establishment, followed by a slight fall around the 1000 employee mark". This conclusion receives further discussion presently.


291. Gill et al., Industrial relations ..., op.cit., p.136.

No information is available on the level of disputes within the sectors of the chemical which are covered by the chemical disputes procedure. However, the following table does give a limited sectoral breakdown of disputes in the chemical and allied industries.

**Table 7.8.**

Number of working days lost (1000's) by the chemical industry sectors 1969-1976 (293)

<table>
<thead>
<tr>
<th>Year</th>
<th>Chemicals, Plastics Dyestuffs, Fertilisers etc.</th>
<th>Pharmaceutical &amp; Toilet Preps.</th>
<th>Paints, Soaps &amp; other chem. inds.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969</td>
<td>24</td>
<td>20</td>
<td>8</td>
</tr>
<tr>
<td>1970</td>
<td>132</td>
<td>34</td>
<td>8</td>
</tr>
<tr>
<td>1971</td>
<td>28</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>1972</td>
<td>38</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>1973</td>
<td>51</td>
<td>2</td>
<td>18</td>
</tr>
<tr>
<td>1974</td>
<td>48</td>
<td>30</td>
<td>10</td>
</tr>
<tr>
<td>1975</td>
<td>168</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>1976</td>
<td>17</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

It appears from this table that the sector covered by the Chemical and Allied Industries JIC is the most dispute-prone, whilst the Fine Chemicals sector with the same and Other Chemical Industries with different disputes procedure have similar levels of disputes. This is confirmed when the number of days lost per 1000 employees is considered; (294) a result which might lead to the conclusion that the


294. The average days lost per 1000 employees for 1974-77 were:

- Chemicals, Plastics, Dyestuffs, Fertilisers, etc. 521
- Pharmaceutical and Toilet Preparations 176
- Paints, Soaps and Other Chem. Inds. 135
- Selected industries (Mining, Manufacturing, Construction and Transport). 733

From: Department of Employment Gazette, Vol.LXXXVII, No.1. 1979, p.28ff, own calculations.
disputes procedure does not influence the level of dispute-proneness. Such a conclusion would not seem warranted. Not only are strikes more prevalent in non-federated companies, but other factors such as the size of establishments and level of union membership density might contribute towards these differences.

Despite the fairly high level of dispute-proneness in the Heavy Chemicals sector, as a whole, the chemical industry compares very favourably with other manufacturing industries. In addition, disputes were discovered to be a very insignificant cause of production delays, accounting for only 2.5 per cent of the delays reported in a recent survey.

It has been established previously that strike levels in the West German chemical industry are very low, there only having been one major stoppage in the past fifty years. When the relative strike level in the British chemical industry was compared with that in Germany, it was discovered that the two industries accounted for similar percentages of the total days lost as a result of stoppages of work. Between 1966

295. Gill et al., Industrial relations ..., op.cit., p.19.


297. The JIC areas, and ICI seem to be more highly organised than pharmaceuticals, toiletries, and other chemical industries. Interviews TU 9, Jan. '78 and TU 14, June '78.

298. The major causes were technical production problems (73.3 per cent) and labour shortage (13.3 per cent). Gill et al., Industrial relations ..., op.cit., p.69.

299. cf. Chapter 4, Section (iii)c.
and 1978 the chemical industry in Britain caused 1.22 per cent of
days lost whilst the German chemical industry caused 2.12 per cent
over the same period.\(^{300}\) It is perhaps surprising that the German
chemical industry seems more prone to disruption than its British
counterpart. However, due to the generally limited nature of in-
dustrial action in Germany even single stoppages can have a great
influence on the average level of stoppages.\(^{301}\) It would therefore
be unwise to go beyond the conclusion that industrial action is at a
comparable level in the German and British chemical industries.

The limitations in the theories used to explain strike-proneness have
been discussed by Hyman.\(^{302}\) Nevertheless, there are some arguments
which permit a cautious explanation of the reasons for the low level
of strike action in the chemical industries of both countries under
consideration. Due to the restrictions imposed by the research method
and the dangers arising from generalisations in a highly diverse in-
dustry, the explanations arrived at are no more than tentative in
nature, and could perhaps be used as the basis for further comparative
research to provide a more founded explanation.

The incidence of strikes in the British and West German chemical in-
dustries is apparently explained by a number of interrelated factors
common to both industries within the context of each national industrial

\(^{300}\) Statistische Jahrbücher and Department of Employment Gazette,
various years, own calculations.

\(^{301}\) Furthermore, strike statistics lack great accuracy although
the statistical definition of a strike is fortunately the same
in Britain and Germany. Nevertheless, the average number of
days lost per year was 93 400 in Britain and 15 900 in Germany.

\(^{302}\) R. Hyman, 1977, \textit{op.cit.}, Chapter 3.
relations environment. These common factors may basically be classified as the economic state, industrial organisation, and technological characteristics of the industries together with joint regulatory systems of dispute settlement which have developed under these conditions.

The British and German chemical industries have both enjoyed economic growth throughout the majority of the post-war period. This has been stimulated by the change in the raw material basis of the organic sector of the industry from coal to oil and the increasing importance of pharmaceuticals as well as new products such as man-made fibres and plastics. The economic expansion of the industry has, however, been achieved without large increases in the size of the chemical workforce. This has resulted in greater productivity and capital intensity. Also, labour costs now represent a smaller proportion of total costs. Under such circumstances management can adopt a concessionary approach to the unions and works councils in negotiations. The consequence of this room for manoeuvre is above average wages and extensive welfare and fringe benefits which create good pre-conditions for job satisfaction.

In Britain, however, incomes policy has been responsible for limiting the extent to which earnings have been able to increase above the average, although it has also provided a stimulus for productivity bargaining which has itself had a number of consequences for workplace relations, one of which seems to be an increase in formalisation.

303. Although false estimations of the level of investment needed in this area have led to excessive over-capacities, and intense competition in this sector in recent years.

Concessionary attitudes on the part of management and employers' associations remove the necessity for unions to engage in strike action in order to gain satisfactory improvements in wages and conditions. When such concessions are withheld, despite economic growth, then the likelihood of a dispute increases, as in Rheinland-Pfalz in 1977. The importance of the economic state of the industry to strike levels is also illustrated by the minor economic recession in the German chemical industry in 1970. The situation gave the employers' association an opportunity to take on the union with the aim of weakening the position of progressive elements within it. This decision was unusual for employers in the chemical industry where the levels of investment generally make the maintenance of production a very high priority for management. This normally increases management's willingness to find compromise solutions in negotiations rather than risk the consequences of industrial action.

Due to the very wide range of products in the chemical industry, its technological characteristics are difficult to summarise. However, fairly high levels of automation and continuous production systems are common, particularly in the Heavy Chemicals sectors. As a consequence most production workers, as well as some craftsmen and staff, work shifts, a fact which hinders communication within the workforce as a whole. Such communication problems affect the unions more than management since supervisors have regular contact with individual operatives in order to ensure that the plant is running correctly. Work groups are typically small and working places can be dispersed through large
production complexes. The result of these circumstances is a personalisation rather than a collectivisation of relations and they make the mobilisation of a workforce for strike action extremely complex.

In the most highly automated sectors of chemical production it is feasible for non-union employees to maintain production after the majority of workers have withdrawn their labour. Such tactics have been used in the West German chemical industry with varying degrees of success. Union negotiators there have to take this possibility into account until they have increased union membership densities, especially amongst technical and managerial staff which are the groups most likely to be used to run the plants. In Britain, union membership amongst white-collar chemical workers is probably high enough amongst technical staff to make such tactics unlikely. Since the traditions of union solidarity are strong, it is also extremely unlikely that staff would be prepared to carry out strikers' work. In any case, management in Britain seems more inclined towards closing down production in an orderly way when confronted by strike action, rather than attempting to keep it going despite the strike.

Investigations in the British chemical industry have indicated that the frequency of disputes generally increases with the size of establishment. Unfortunately, data does not show whether this trend continues when the chemical establishments are extremely large with up to 10 000 employees. Although strikes are not unknown on the larger British production sites,

they are extremely rare in Germany where far larger establishments exist. Whilst German unionists were generally unanimous in the opinion that it would be extremely difficult, if not impossible, to carry out a successful strike in a mammoth chemical works, this attitude was not shared by their British colleagues.\(^{307}\) The very existence of such attitudes amongst German union officials is likely to ensure that it does not come to strike action in the chemical industry since the structure of collective bargaining is such that a strike of any great significance would require shutting down production in one of the three main chemical works at Leverkusen, Hoechst or Ludwigshafen in order to win a strike. The reasons for this are not only their economic importance to the employers' association but also their symbolic importance to other unionists on strike.\(^{308}\) The failure to carry out successful strikes at Bayer and Hoechst in 1971 was one of the major causes of the defeat of the chemical workers' strike. Furthermore, the conclusion that a strike at BASF in 1977 would have failed, prevented union officials from calling out their members.\(^{309}\)

Although many of the factors making industrial action in large production complexes unlikely to succeed in Germany are inapplicable in Britain - the dominance of the local union organisation by works

\(^{307}\) Numerous interviews.

\(^{308}\) Dzielak et al., op.cit., p.382.

\(^{309}\) The difficulties in carrying out successful strike action on these sites are manifold. They include a heterogenous workforce (causing unsolidarity); a lack of trade union traditions and low membership density; high levels of material benefits and strong company loyalties; a domination of the local trade union organisation by works councillors who rarely want a dispute to take place; lack of an understanding of the production system or how to run down production; an inability to organise realistic levels of safety cover, etc. For some examples of this cf. Ibid., p.382ff.
councillors, for example - it would be difficult to organise lightening action on large British sites due to the size of the site and scattered nature of working places. Even though the technical problems associated with industrial action are similar in both countries, British unionists were undaunted by them whilst officials of the German Chemical Workers' Union constantly emphasised their importance. This may be a reflection of the less acute nature of the communication problems in Britain, but might also result from the greater strike experience of the British union officers both within and outside the chemical industry. In order to draw firmer conclusions about the effect of large production sites and their complex production technology on the frequency of strike action, further investigations might be in order.

Advanced technology appeared to have contradictory effects - decreased manual work but increased mental stress, for example - on job content and conditions of work in the British and German chemical industries so that its relationship with job satisfaction, and hence perhaps with a willingness to engage in industrial action could not be ascertained.

One consequence of advanced technology on strike action in the British chemical industry is somewhat paradoxical. Overtime levels appear to be quite high to maintain normal production even in automated plants with low manning levels since the absence of a single operator - whether through sickness, holiday or absenteeism - can be extremely critical.
This makes an overtime ban as effective as a strike and since it costs the union members less is preferred by them. This may be a partial explanation of the low strike level in the British chemical industry. In Germany overtime is sanctioned by works councillors and the legality of a general ban is rather dubious. This tactic is therefore extremely rare in the German chemical industry.

Trade union weakness at the workplace is still a feature of industrial relations in the West German chemical industry although British unions have recently been able to overcome the difficulties in recruiting imposed upon them by technological and organisational problems as well as management resistance. In Germany this weakness does not cause industrial conflict since the works council system removes the majority of workplace issues from the preserve of the unions. Furthermore, management policy has been to create loyalty to the company through "social paternalistic" benefits thus achieving a stable workforce and a continuity of production and at the same time limiting the influence of the unions within the company. This weakness at shopfloor level does make it extremely difficult for the unions to call sweeping industrial action in the context of collective bargaining given its present structure in the German chemical industry. Industrial action is illegal in Germany unless called by a union after fully exhausting the conciliation procedure, which in the chemical industry is a form of joint regulation.

The expansion of workplace and especially productivity bargaining with
the concomitant growth in union membership in the British chemical industry has resulted in increasing usage of the disputes procedure. Furthermore, the level of strike activity has also increased, for whilst the average number of days lost through stoppages of work from 1966 to 1970 was 65400, from 1970 to 1974 it was 85000 and from 1974 to 1978 it averaged 143400.\(^{(310)}\) This seems to indicate that trade union weakness was one of the reasons for the relatively low strike-proneness of the chemical industry in Britain.

It would seem, therefore, that the increase in formalisation of workplace industrial relations which has taken place in the British chemical industry is a response to this increase in strike-proneness.\(^{(311)}\) The greater formalisation of workplace relations has generally resulted in an expansion of the joint regulatory grievance procedures in workplace industrial relations.

It is contended that the joint regulatory procedures which exist in both the British and German chemical industry for the settlement of collective and individual grievances at the workplace and disputes between the unions and employers' associations have contributed greatly towards the low number of strikes in these industries. This is indicated primarily by the low frequency of failure of these procedures despite the occasional outbreak of unconstitutional action, especially in Britain.

\(^{(310)}\) Department of Employment Gazette, various years, own calculations.

\(^{(311)}\) For a similar argument cf. Gill and Warner, op. cit., p.68f.
Although the institutions which exist to regulate workplace grievances in the German chemical industry are the result of legislation, the extent to which the institutionalisation of industrial conflict has taken place seems to be a particular feature of the chemical industry. Besides this example, the remaining procedures have developed from negotiations between unions and employers and illustrate that the collective bargaining systems produce effective procedural regulations.

It is not claimed that the strike level in the West German and British chemical industry has been explained finally and in all its aspects, but what does emerge is the fact that similar factors operate in both countries, although the details of their operations vary somewhat. Within the confines of each national industrial relations environment, the economic state, industrial organisation and technological characteristics of the chemical industry have resulted in a low level of strike activity.
Chapter 8.

Summary and Conclusions.

Comparison of labour relations in the West German and British chemical industries has revealed that many similarities exist between the situation in both countries. However, the distinctive national industrial relations system in Britain and Germany also have an influence upon chemical industrial relations in each country. It is the aim of this final chapter to discuss the similarities and dissimilarities and to draw conclusions from them.

Before concluding, however, a brief statement of the major findings of the study is called for. Labour relations in the chemical industries of Britain and West Germany are characterised by effective joint regulatory disputes procedures, and partly as a result of this by a low incidence of official and unofficial disputes. Furthermore, union organisation is generally weak, particularly at the workplace, unless management policies and state intervention provide stimulus and support for the unions. The state has, in fact, played a crucial role in the development of chemical labour relations in the two countries, whilst management policies have, until recently, shown remarkable similarities.

These statements are based upon wide empirical investigations in Britain and Germany, including numerous interviews, as well as a review of many primary sources not previously used in academic work and a consideration of the relevant secondary sources. This method applied in a comparative study of the two countries provides the basis for these conclusions.
The central hypothesis of the study has been that the technical nature, the industrial organisation and the economic state of the chemical industry all have a significant influence on the practice of labour relations in the chemical industry. The importance of these factors has been illustrated on numerous occasions during the course of this study. However, Part One also indicated that political and legislative developments as well as behavioural influences also have an effect on chemical industrial relations in Germany. The importance of such factors in Britain has been confirmed in the previous chapter, whilst management policies were seen to have a considerable influence on labour relations in the British chemical industry. As a result, no simple statement can be made of the main factors which affect industrial relations in the chemical industry although the initial hypothesis has been confirmed.

Management policies amongst large chemical manufacturers in Britain and Germany for many years contained social paternalistic measures such as extensive welfare services, fringe benefits and company housing schemes which were more extensive than was generally the case in manufacturing industry.

In Germany this trend began against a background of early state initiatives in the social field. Management ideology may also have played a certain role but it seems the main motives for these social services in both countries were attempts to counter the high turnover amongst chemical workers, which resulted primarily from the appalling working conditions; the choice of green-field sites which lacked any sort of facilities for the employees and efforts to establish a loyal workforce over which the
unions had little influence. Management was especially successful in achieving the last of these aims and only in recent years have British trade unions secured a firm organisational base amongst chemical workers. The German Chemical Workers' Union has yet to achieve this in the majority of large chemical companies.

One reflection of the traditional antipathy towards unions in the British chemical industry may still be found in ICI's job evaluation scheme which may be seen as a form of "employer conciliation". This form of unilateral regulation is, however, unusual in both the British and German chemical industries. This contrasts with the situation as it was for many years in the British engineering industry and with procedures in German industries such as textiles, printing and to a lesser extent engineering. (1)

In Germany, co-determination has traditions which extend back for sixty years, although such provisions are based upon legal statutes - currently the Works Constitution Act 1972 - which are common to German industry in general. In Britain some voluntary agreements have led to consultative procedures being introduced. In fact, some of the most extensive consultative procedures in British industry have developed in chemicals. The reasons for this seem to be a realisation by management of the potential usefulness of such schemes together with union pressure for their introduction. Since such consultative procedures have developed in many different ways no accurate picture of their effectiveness can

1. H. Kotthoff, op.cit., Graphik Nr.14/5.
be given but generally both management and unionists seem to prefer voluntary procedures to ones imposed through legislation. Consultative procedures are also more highly developed in the German chemical industry than is usually the case since the joint committee systems which exist in the chemical industry are more extensive than in many German industries. This situation might be seen as a comprehensive bureaucratisation of industrial conflict at the workplace. The minimal incidence of unconstitutional, indeed illegal, industrial action at the workplace in the German chemical industry seems to indicate furthermore the efficacy of this system.

Relations between management and the workforce or their representatives are apparently based upon mutual respect and may generally be classified as good. Although it would be a mistake to claim that chemical technology is the sole cause of this - many jobs remain heavy, dirty, dusty and noisy - it has certainly contributed towards these good relations.

Chemical production technology may be characterised as being capital intensive and automated, although the extent of automation does vary somewhat. This has consequences for the size of work groups, the fixed nature of work places, the distribution of a small number of production workers over large areas, the extent of shift work and the way in which supervision is carried out. As a result communication can be difficult for union officers, the success of union recruiting drives is often limited and close contacts are established between supervisors and the workforce. Woodward's findings seem to have certain international
validity in this context. In summary, chemical production technology seems to lead to a personalisation rather than a collectivisation of industrial relations.

Despite these difficulties, unions in the British chemical industry have succeeded in extending their influence at the workplace. This has led to considerable changes in the role and status of the supervisor, and often to their subsequent unionisation. In Germany, on the other hand, the position of the supervisor is firmly established in tradition and no forces have emerged to challenge this. Union membership amongst supervisors in the German chemical industry is nevertheless extensive, probably through the rigid training qualifications which invariably include an apprenticeship of some kind and often further examinations. In addition, the existence of industrial unionism can sometimes lead to the rather paradoxical situation of the supervisor being the union representative for his work group. It is uncertain whether this situation is limited in practice to the chemical industry, or whether it occurs generally. However, no evidence for the latter exists.

The unusually large number of managers and senior staff required in the chemical industry because of its highly technical nature have provided the basis for the development of union organisation within these groups. The VAA has been extremely successful in recruiting senior staff in Germany whilst white-collar unionisation of managers, such as by APST at ICI, is increasing in Britain too. Major factors to influence this growth have been legislation in both Britain (e.g. Health and Safety at Work Act) and Germany (Works Constitution Act 1972).
In addition the employers have lent support to such organisations in both countries, perhaps from a desire to channel increasing collectivisation of senior staff towards professional unions with a less militant style. In both countries collectivisation of management to the extent that it has occurred in the chemical industry is most uncommon and illustrative of the way in which parallel labour relations developments can occur in the same industry under divergent industrial relations environments.

The capital intensive nature of chemical production further affects management in a number of ways. High investment levels require a maximum utilisation of plant, and hence limit management's room to manoeuvre with the workforce since strike prevention has a large priority. Furthermore, labour costs are relatively unimportant, so management has a further incentive for compromising on demands from the workforce. These factors go some of the way towards providing an explanation of the low incidence of disputes in the chemical industry. Such criteria are not absolute, however, for the 1971 German chemical industry strike was clearly provoked by the employers in the hope of balancing their immediate losses against greater long-term gains as a result of defeating the union. The timing of this essay against the union was carefully chosen to follow soon after the first recession suffered by the chemical economy since the Federal Republic came into existence.

The state has played an extremely important role in the development of employers' associations in the chemical industry. This has been the
case in both Britain, where this is most unusual, and Germany. Although the present structure of employers' associations is very different in the two countries due to the rationalisation of British employers' organisations during the 1960s and the federal structure in Germany, their actual industrial relations roles are very similar. The employers' associations provide legal services, specialist advice and training programmes on industrial relations issues, although their major role in both countries remains collective bargaining with the unions. In fact, the Chemical Industries Association was one of the first employers' associations in Britain to pioneer this broad approach to industrial relations. The structure of collective bargaining in each of the chemical industries under consideration is primarily a reflection of the national collective bargaining systems, but is also influenced by the structure of the chemical industry. In Britain bargaining occurs nationally for a variety of groups of employees reflecting the structure of the British trade union movement, as well as on a national (e.g. ICI), divisional or local company basis. In Germany, on the other hand, regional and national bargaining are prevalent, supplemented by bargaining locally or nationally between works councils and management.

State involvement has also been crucial in the development of bargaining in the British chemical industry by providing the initial impetus for national bargaining, then strengthening the system during the Second World War and by its periodical support of productivity bargaining during the last two decades. Without this support, collective bargaining would scarcely have developed or survived in this form, an unusual
statement to make about an industry in Britain, the birthplace of "voluntarism". In Germany, the collective bargaining system, and hence the position of the employers' associations is anchored firmly in legislation. Furthermore domestic negotiations generally take place according to the provisions of the Works Constitution Act.

The climate of collective bargaining in both the British and German chemical industries has been affected positively by their steady economic developments with only minor recessions during the post-war period. Although this has generally provided management with more scope for concessions in negotiations, in Britain consecutive incomes policies have removed much of this flexibility, as well as much of the controversy from wage negotiations.

Historically the chemical industry developed later in both Britain and Germany than did many of the heavy industries. As a consequence trade unionism had scarcely evolved in the chemical industry by the time of the First World War which marked the advent of considerable state involvement in industrial relations in both countries. Trade unionism in the chemical industry was subsequently influenced greatly by many of these developments, for example in Britain through the introduction of national collective bargaining and later Joint Industrial Councils, and in Germany by the recognition of trade unions and then the passing of works council legislation.

Despite the initial similarities in the development of unionism within the British and German chemical industries, political occurrences in
Germany produced a discontinuity in union development, bringing later the opportunity to re-establish the union movement from afresh. This resulted finally in a system of industrial unionism whilst in Britain the uninterrupted evolution of the union movement has produced general, craft and white-collar unions many of which are active within the British chemical industry.

Formally the structure of the trade unions in the British chemical industry is much more fragmented than in Germany. However, there is often much co-operation between the British unions especially on individual sites, whilst in Germany the Chemical Workers' Union is by no means a monolithic organisation. Above all, differences in opinion often emerge between works councillors and union lay officers, whilst the union officialdom is clearly split into two factions.

Until recently trade unions in Germany and Britain had failed to establish a firm base amongst chemical employees, especially in the larger companies. In the Federal Republic this situation still exists, caused primarily by the exclusion of unions from workplace industrial relations as a result of the works council system. Further reasons for this failure are communication difficulties resulting from the production technology, the system of plant representatives in the large companies and the almost continuous economic growth of the industry which has brought good pay and conditions without the need for intense union pressure. These factors have also contributed to the minor role played by union lay officers in chemical industrial relations in Germany; a circumstance from which it is difficult for the union to strengthen its
position. In addition, large numbers of white-collar employees work in the chemical industry and in Germany they have remained resistant to union membership.

In the British chemical industry the post-war economic development led to a strengthening of the position of shop stewards. With the introduction of productivity bargaining by management and supported by government incomes policy, a strong, effective shop steward organisation became a necessity if a successful agreement was to be achieved and subsequently operated. Many productivity agreements also included union membership clauses and this helped the unions to expand their membership in chemicals. Furthermore white-collar unions such as ASTMS have been increasingly successful in recruiting members in the chemical industry during the last decade. The reasons for this were the erosion of differentials and staff status by incomes policy and productivity bargaining, government encouragement of the extension of bargaining to the white-collar sector and the resultant changes in employers' attitudes to white-collar unionisation.

At present there are no signs of any such developments amongst staff in the German chemical industry although trade union membership is slowly rising. Should there ever be a considerable erosion of differentials, however, it is conceivable that the German Salaried Staff Union would benefit from increases in membership.

The disputes procedures in the British and German chemical industries are specifically products of each national industrial relations system.
Despite this there are considerable similarities since joint regulatory procedures have been adopted in both countries. In Britain a three stage procedure with local, headquarters and disputes committee conferences supplements the formal and informal means of dispute regulation at the workplace. In Germany, collective issues arising from negotiations are dealt with by the joint conciliation committees which are seen in a similar way as the British headquarters conferences as bringing fresh minds to bear upon the problem, and by works conciliation committees in the case of individual issues or those limited in scope to the works or company.

In all cases a desire to retain full responsibility for the decision for as long as possible at a particular level, and to prevent the involvement of external parties if possible, was prevalent. This could well be a reflection of the attitude that outsiders would scarcely be able to understand the problem in a technologically complicated industry.

It is well-known that German industry is less strike prone than British industry. Despite this, however, the relative level of strike proneness in the British and German chemical industries in recent years has been very similar. This has been tentatively explained by the effectiveness of joint regulatory disputes procedures, the stable economic development, the influence of chemical technology and high capital intensity and by union weakness at the workplace. The possible importance of this last factor is perhaps illustrated by the increasing level of strike activity in the British chemical industry from 1966 until 1978, that is to say from a time when British unions were first able to establish a
One consequence of the increased level of strike activity in British chemicals seems to be a greater formalisation of industrial relations at site and company level, illustrated by the spread of personnel specialists and shop stewards committees. Nevertheless, despite the similarities in the level of strike proneness, management generally reacts in different ways in the two countries when confronted by a dispute situation. In Germany, management will often attempt to keep production running at all costs whilst in Britain management favours an orderly shutting down of production.

As a result of this study certain tentative conclusions can be drawn about labour relations in the modern chemical industry. Relations between management and employees or their representatives are likely to be good due to the steady economic growth enjoyed by the industry and as a result of the production technology. Furthermore, joint regulatory procedures for the solution of grievances are likely to predominate over unilateral procedures, and this also contributes to the peaceful tenor of industrial relations. As a consequence of these factors the chemical industry is unlikely to be strike prone compared with other manufacturing industries.

In addition, workplace union organisation will probably be poorly developed as a result of technological constraints such as shift work, small work groups and scattered work places. This is even more probable
so long as management policies, for example of a social paternalistic nature, are designed to prevent the growth of union organisation. However, where management or the state desire strong, stable workplace union organisations, then it is possible for the unions to overcome the organisational difficulties arising from chemical production technology.

Labour relations in the chemical industry are, within the context of the respective national industrial relations environment, primarily influenced by the technological characteristics, industrial organisation and economic development of the chemical industry.
Table 1.

Trade union membership in Germany 1978.

<table>
<thead>
<tr>
<th>Union</th>
<th>Total</th>
<th>Membership</th>
<th>Civil Servants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Men</td>
<td>Women</td>
<td>Staff</td>
</tr>
<tr>
<td>Bau, Steine, Erden.</td>
<td>517 842</td>
<td>503 577</td>
<td>14 265</td>
</tr>
<tr>
<td>Bergbau und Energie.</td>
<td>362 148</td>
<td>356 053</td>
<td>6 095</td>
</tr>
<tr>
<td>Chemie, Papier; Keramik.</td>
<td>650 675</td>
<td>531 630</td>
<td>119 045</td>
</tr>
<tr>
<td>Druck und Papier.</td>
<td>145 980</td>
<td>118 433</td>
<td>27 547</td>
</tr>
<tr>
<td>Eisenbahner</td>
<td>414 195</td>
<td>395 453</td>
<td>18 742</td>
</tr>
<tr>
<td>Deutschlands.</td>
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<td>82 337</td>
<td>76 397</td>
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<tr>
<td>Erziehung und Wissenschaft.</td>
<td>41 311</td>
<td>38 448</td>
<td>2 863</td>
</tr>
<tr>
<td>Gartenbau, Land- und Forstwirtschaft.</td>
<td>314 244</td>
<td>149 514</td>
<td>164 730</td>
</tr>
<tr>
<td>Handel, Banken und Versicherungen.</td>
<td>145 076</td>
<td>128 441</td>
<td>16 635</td>
</tr>
<tr>
<td>Holz und Kunststoff.</td>
<td>42 109</td>
<td>35 152</td>
<td>6 957</td>
</tr>
<tr>
<td>Kunst.</td>
<td>55 068</td>
<td>31 287</td>
<td>23 781</td>
</tr>
<tr>
<td>Metall.</td>
<td>260 798</td>
<td>2300 974</td>
<td>379 824</td>
</tr>
<tr>
<td>Nahrung, Genuss, Gaststätten.</td>
<td>252 440</td>
<td>180 104</td>
<td>72 336</td>
</tr>
<tr>
<td>Öffentliche Dienste, Transport u. Verkehr.</td>
<td>1099 396</td>
<td>826 941</td>
<td>272 455</td>
</tr>
<tr>
<td>Polizei.</td>
<td>152 486</td>
<td>144 161</td>
<td>8 325</td>
</tr>
<tr>
<td>Deutsche Postgewerkschaft.</td>
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<td>319 042</td>
<td>109 836</td>
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<tr>
<td>Textil-Bekleidung.</td>
<td>290 143</td>
<td>127 627</td>
<td>162 516</td>
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| Deutsche Gewerkschaftsbund.     | 7751 523  | 6269 174   | 1482 349        | 1549 397        | 832 088         |
| Deutsche Angestellengewerkschaft. | 478 735  | 304 931    | 173 804         | -               | -               |
| Deutscher Beamtenbund.          | 800 671   | 610 664    | 190 007         | -               | -               |
| Christliche Gewerkschaftsbund.  | 249 200   | -          | -               | -               | -               |

Source: Statistisches Jahrbuch 1979, op. cit., p. 549.
Infobrief, 7/1979, p. 4.
Table 2.

<table>
<thead>
<tr>
<th>Year</th>
<th>Membership in Employment</th>
<th>Total Membership</th>
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<td>346 072</td>
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<tr>
<td>1951</td>
<td>431 790</td>
<td>74.2</td>
</tr>
<tr>
<td>1952</td>
<td>427 336</td>
<td>72.5</td>
</tr>
<tr>
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<td>412 972</td>
<td>64.5</td>
</tr>
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<td>1954</td>
<td>412 851</td>
<td>62.3</td>
</tr>
<tr>
<td>1955</td>
<td>422 053</td>
<td>58.7</td>
</tr>
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<td>1956</td>
<td>436 667</td>
<td>59.0</td>
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<tr>
<td>1957</td>
<td>449 278</td>
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<tr>
<td>1958</td>
<td>469 680</td>
<td>56.7</td>
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<tr>
<td>1959</td>
<td>463 486</td>
<td>54.7</td>
</tr>
<tr>
<td>1960</td>
<td>471 627</td>
<td>53.9</td>
</tr>
<tr>
<td>1961</td>
<td>481 221</td>
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</tr>
<tr>
<td>1962</td>
<td>484 445</td>
<td>52.6</td>
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<tr>
<td>1963</td>
<td>479 540</td>
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</tr>
<tr>
<td>1964</td>
<td>478 474</td>
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</tr>
<tr>
<td>1965</td>
<td>485 854</td>
<td>50.7</td>
</tr>
<tr>
<td>1966</td>
<td>481 712</td>
<td>50.1</td>
</tr>
<tr>
<td>1967</td>
<td>462 370</td>
<td>52.3</td>
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<tr>
<td>1968</td>
<td>469 510</td>
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<tr>
<td>1969</td>
<td>489 157</td>
<td>51.6</td>
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<td>1970</td>
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</tr>
<tr>
<td>1971</td>
<td>536 587</td>
<td>52.0</td>
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<td>1973</td>
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</tr>
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<td>1974</td>
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<td>1979</td>
<td>537 060</td>
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1. As at 31.12.
2. As at 31.3

Table 3.

Union membership density of selected groups within the Industrial Union of Chemical, Paper and Ceramics Workers 1955-1979.

<table>
<thead>
<tr>
<th>Year</th>
<th>All</th>
<th>Male</th>
<th>Female</th>
<th>Salaried Staff</th>
<th>All</th>
<th>Male</th>
<th>Female</th>
<th>Total</th>
<th>All</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
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<td>1955</td>
<td>66.2</td>
<td>68.8</td>
<td>58.8</td>
<td>25.9</td>
<td>29.7</td>
<td>17.7</td>
<td></td>
<td>58.7</td>
<td>62.0</td>
<td>49.8</td>
<td></td>
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<tr>
<td>1960</td>
<td>62.3</td>
<td>66.7</td>
<td>50.1</td>
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<td>14.1</td>
<td></td>
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<td>58.8</td>
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<tr>
<td>1965</td>
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<td>65.1</td>
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<td>22.0</td>
<td>26.3</td>
<td>13.1</td>
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<td>56.2</td>
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<tr>
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<td>64.9</td>
<td>44.3</td>
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<td>46.1</td>
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<td>51.9</td>
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<tr>
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<td>28.6</td>
<td>15.9</td>
<td></td>
<td>53.1</td>
<td>58.9</td>
<td>36.3</td>
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<td>69.4</td>
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<td>24.1</td>
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<td>47.4</td>
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<td>27.9</td>
<td>17.5</td>
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<td>54.4</td>
<td>59.7</td>
<td>39.0</td>
<td></td>
</tr>
<tr>
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<td>73.1</td>
<td>52.0</td>
<td>26.7</td>
<td>29.5</td>
<td>20.6</td>
<td></td>
<td>54.0</td>
<td>59.2</td>
<td>38.7</td>
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<td>59.6</td>
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<tr>
<td>1978</td>
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<td></td>
<td>54.2</td>
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<td>40.2</td>
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<tr>
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<td>26.7</td>
<td>28.3</td>
<td>23.1</td>
<td></td>
<td>53.8</td>
<td>58.3</td>
<td>40.4</td>
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Sources: Dziela et al., op.cit., p.540 and GB 76-79, op.cit., p.281, own calculations.
Table 4.

<table>
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<tr>
<th>Year</th>
<th>Workplace Reps. Total</th>
<th>No. of Organised Works Councillors</th>
<th>Workplace Reps. Less Works Councillors</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>No.</td>
<td>Change %</td>
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</tr>
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<td>10 866</td>
<td>-</td>
<td>6 601</td>
</tr>
<tr>
<td>1956</td>
<td>16 335</td>
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<td>10 574</td>
</tr>
<tr>
<td>1959</td>
<td>21 059</td>
<td>+28.9</td>
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</tr>
<tr>
<td>1962</td>
<td>27 686</td>
<td>+31.5</td>
<td>10 922</td>
</tr>
<tr>
<td>1965</td>
<td>36 373</td>
<td>+31.4</td>
<td>11 376</td>
</tr>
<tr>
<td>1968</td>
<td>35 745</td>
<td>-1.7</td>
<td>10 246</td>
</tr>
<tr>
<td>1971</td>
<td>41 072</td>
<td>+14.9</td>
<td>10 246</td>
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<tr>
<td>1975</td>
<td>46 366</td>
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<tr>
<td>1979</td>
<td>45 722</td>
<td>-1.4</td>
<td>14 286</td>
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</table>

(1) Including Works Councillors, Lay Officers and Collecting Stewards.


Source: Dzielak et al., op.cit., p.542.
Der Betrieberat, Vol.28, No.3, 1979, p.64.
Table 5.
Works Council Elections in the Organisational Area of the Chemical Workers' Union.

<table>
<thead>
<tr>
<th>Year</th>
<th>Turnout</th>
<th>Type of Election</th>
<th>% Joint</th>
<th>% Group</th>
<th>% Seats to DGB unions</th>
<th>DGB works councillors (abs)</th>
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<tr>
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<td>Workers</td>
<td>Staff</td>
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<td>85.5</td>
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<td>88.6</td>
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<td>28.7</td>
<td>93.0</td>
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<td>84.4</td>
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<td>79.9</td>
<td>68.1</td>
<td>31.9</td>
<td>94.1</td>
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<td>85.1</td>
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<tr>
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<td>80.1</td>
<td>64.5</td>
<td>35.5</td>
<td>94.5</td>
<td>51.9</td>
<td>85.7</td>
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<td>1961</td>
<td>75.8</td>
<td>63.4</td>
<td>36.6</td>
<td>94.6</td>
<td>56.3</td>
<td>86.7</td>
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<td>1963</td>
<td>76.5</td>
<td>62.2</td>
<td>37.8</td>
<td>94.6</td>
<td>55.6</td>
<td>86.1</td>
</tr>
<tr>
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<td>73.2</td>
<td>60.4</td>
<td>39.6</td>
<td>94.7</td>
<td>60.4</td>
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<td>75.6</td>
<td>60.7</td>
<td>39.3</td>
<td>94.4</td>
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<td>87.0</td>
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<td>84.9</td>
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<td>93.5</td>
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<td>86.8</td>
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<tr>
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<td>35.8</td>
<td>92.5</td>
<td>70.8</td>
<td>85.5</td>
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Sources: Dzielak et al., op.cit., p.541.
Der Betriebsrat, Vol.28., No.3, 1979, p.64.
Table 6.

<table>
<thead>
<tr>
<th>Industry</th>
<th>No of Works</th>
<th>Total Employees</th>
<th>Total Members</th>
<th>Membership Density %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemicals</td>
<td>1497</td>
<td>624 411</td>
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<tr>
<td>Plastics</td>
<td>378</td>
<td>51 396</td>
<td>23 227</td>
<td>45.2</td>
</tr>
<tr>
<td>Rubber</td>
<td>171</td>
<td>82 742</td>
<td>58 235</td>
<td>70.4</td>
</tr>
<tr>
<td>Paper</td>
<td>248</td>
<td>70 273</td>
<td>47 295</td>
<td>67.3</td>
</tr>
<tr>
<td>Fine Ceramics</td>
<td>195</td>
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<td>34 028</td>
<td>60.8</td>
</tr>
<tr>
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<td>52 761</td>
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<td>15 183</td>
<td>10 307</td>
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<td>Abrasives</td>
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<td>3 185</td>
<td>57.2</td>
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<td>1 678</td>
<td>62.3</td>
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<td>7 195</td>
<td>5 025</td>
<td>69.8</td>
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<tr>
<td>Raw Materials</td>
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<td>3 213</td>
<td>1 651</td>
<td>51.4</td>
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<tr>
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<td>5 682</td>
<td>4 164</td>
<td>73.3</td>
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<td>996 013</td>
<td>541 521</td>
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Table 7.

Histogram of District Size in the Chemical Workers' Union 1975.

<table>
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<th>0 1 2 3 4 5 6 7 8 9 10 11 15 20 30 40</th>
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<tbody>
<tr>
<td></td>
<td>2 8 6 4 4 0 9 4 4 11 5 4 1 4 1</td>
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</table>

Size of Districts ('000s)

Source: GB 72-75, op.cit., p.266 and 280.
Table 8


<table>
<thead>
<tr>
<th>Region</th>
<th>No. of Members</th>
<th>Membership Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Niedersachsen</td>
<td>65655</td>
<td>68595</td>
</tr>
<tr>
<td>Nordmark-Berlin</td>
<td>35041</td>
<td>38838</td>
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<td>Westfalen</td>
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<td>46935</td>
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<tr>
<td>Nordrhein</td>
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<td>111026</td>
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<tr>
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<td>65845</td>
<td>71064</td>
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<td>82182</td>
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<td>42388</td>
<td>52259</td>
</tr>
<tr>
<td>Rheinland-Pfalz-Saar</td>
<td>52726</td>
<td>65638</td>
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</table>

Sources: GB 72-75, op.cit., p.291.
GB 69-71, op.cit., p.246.
Table 9.


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<tbody>
<tr>
<td>NEO's</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>FTO's in Head Office</td>
<td>42</td>
<td>43</td>
<td>46</td>
<td>48</td>
<td>69</td>
</tr>
<tr>
<td>Employees at Head Office</td>
<td>54</td>
<td>63</td>
<td>77</td>
<td>86</td>
<td>102</td>
</tr>
<tr>
<td><strong>Total Head Office</strong></td>
<td>104</td>
<td>114</td>
<td>131</td>
<td>142</td>
<td>179</td>
</tr>
<tr>
<td>Regional Secretaries</td>
<td>9</td>
<td>9</td>
<td>8</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Regional Officers</td>
<td>26</td>
<td>33</td>
<td>34</td>
<td>36</td>
<td>37</td>
</tr>
<tr>
<td>Employees at Regional Offices</td>
<td>33</td>
<td>37</td>
<td>37</td>
<td>41</td>
<td>42</td>
</tr>
<tr>
<td><strong>Total at Regional Offices</strong></td>
<td>68</td>
<td>79</td>
<td>79</td>
<td>85</td>
<td>87</td>
</tr>
<tr>
<td>District Secretaries</td>
<td>74</td>
<td>73</td>
<td>74</td>
<td>70</td>
<td>67</td>
</tr>
<tr>
<td>District Officers</td>
<td>51</td>
<td>64</td>
<td>65</td>
<td>78</td>
<td>85</td>
</tr>
<tr>
<td>Employees at District Offices</td>
<td>171</td>
<td>176</td>
<td>197</td>
<td>195</td>
<td>218</td>
</tr>
<tr>
<td><strong>Total at District Offices</strong></td>
<td>296</td>
<td>313</td>
<td>336</td>
<td>343</td>
<td>370</td>
</tr>
<tr>
<td><strong>Total in Organisation</strong></td>
<td>468</td>
<td>506</td>
<td>546</td>
<td>570</td>
<td>636</td>
</tr>
</tbody>
</table>

### Table 10.
Membership in the Association of Salaried Academic and Senior Managerial Staff in the Chemical Industry 1960-1978.

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Members</th>
<th>Index (1960=100)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>5430</td>
<td>100.0</td>
</tr>
<tr>
<td>1961</td>
<td>5905</td>
<td>108.7</td>
</tr>
<tr>
<td>1962</td>
<td>6439</td>
<td>118.6</td>
</tr>
<tr>
<td>1963</td>
<td>7003</td>
<td>129.0</td>
</tr>
<tr>
<td>1964</td>
<td>7262</td>
<td>133.7</td>
</tr>
<tr>
<td>1965</td>
<td>7775</td>
<td>149.2</td>
</tr>
<tr>
<td>1966</td>
<td>8330</td>
<td>153.4</td>
</tr>
<tr>
<td>1967(a)</td>
<td>8922</td>
<td>164.3</td>
</tr>
<tr>
<td>1968</td>
<td>9357</td>
<td>172.3</td>
</tr>
<tr>
<td>1969</td>
<td>10622</td>
<td>195.6</td>
</tr>
<tr>
<td>1970</td>
<td>12523</td>
<td>230.6</td>
</tr>
<tr>
<td>1971</td>
<td>13906</td>
<td>256.1</td>
</tr>
<tr>
<td>1972</td>
<td>14359</td>
<td>264.4</td>
</tr>
<tr>
<td>1973</td>
<td>15091</td>
<td>276.8</td>
</tr>
<tr>
<td>1974</td>
<td>15821</td>
<td>291.4</td>
</tr>
<tr>
<td>1975</td>
<td>16294</td>
<td>300.1</td>
</tr>
<tr>
<td>1976</td>
<td>16976</td>
<td>312.6</td>
</tr>
<tr>
<td>1977</td>
<td>17506</td>
<td>322.4</td>
</tr>
<tr>
<td>1978</td>
<td>18000</td>
<td>331.5</td>
</tr>
</tbody>
</table>

**Sources:** H. Bayer, W. Streech, H.E. Treu, *op.cit.*, Table VAA I-1; Dr. Hansel, Director-General VAA, personal communication, 2.2.79.

(a) Membership up to 1966 as on 1.4 of each year. From 1967, as on 31.12. of each year.
### Employers' Associations in the Chemical Industry - Number of Employees covered 1950-1978.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württbg</td>
<td>31 258</td>
<td>58 555</td>
<td>83 303</td>
<td>83 984</td>
<td>76 775</td>
<td>77 215</td>
</tr>
<tr>
<td>Bayern</td>
<td>30 000</td>
<td>40 600</td>
<td>60 220</td>
<td>60 650</td>
<td>62 727</td>
<td>61 305</td>
</tr>
<tr>
<td>Berlin</td>
<td>-</td>
<td>13 340</td>
<td>14 067</td>
<td>13 842</td>
<td>14 160</td>
<td>13 585</td>
</tr>
<tr>
<td>Bremen</td>
<td>1 359</td>
<td>2 098</td>
<td>1 831</td>
<td>1 498</td>
<td>1 211</td>
<td>1 114</td>
</tr>
<tr>
<td>Hamburg</td>
<td>11 607</td>
<td>22 058</td>
<td>24 692</td>
<td>22 987</td>
<td>23 498</td>
<td>23 556</td>
</tr>
<tr>
<td>Hessen</td>
<td>44 515</td>
<td>72 505</td>
<td>114 636</td>
<td>116 512</td>
<td>113 007</td>
<td>113 461</td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>16 876</td>
<td>22 970</td>
<td>34 948</td>
<td>38 371</td>
<td>35 609</td>
<td>37 179</td>
</tr>
<tr>
<td>Nordr-Westfalen</td>
<td>104 223</td>
<td>174 803</td>
<td>207 642</td>
<td>205 932</td>
<td>190 677</td>
<td>186 445</td>
</tr>
<tr>
<td>Rheinland-Pfalz</td>
<td>38 000</td>
<td>73 300</td>
<td>91 700</td>
<td>94 500</td>
<td>88 100</td>
<td>86 930</td>
</tr>
<tr>
<td>Saarland</td>
<td>-</td>
<td>2 403</td>
<td>1 599</td>
<td>6 937</td>
<td>6 325</td>
<td>6 694</td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>3 000</td>
<td>6 293</td>
<td>9 698</td>
<td>9 587</td>
<td>9 963</td>
<td>10 417</td>
</tr>
<tr>
<td>Westfalen</td>
<td>9 545</td>
<td>30 911</td>
<td>47 519</td>
<td>49 544</td>
<td>49 121</td>
<td>47 529</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>290 383</td>
<td>519 881</td>
<td>691 855</td>
<td>704 344</td>
<td>671 173</td>
<td>665 430</td>
</tr>
</tbody>
</table>

Source: Zahlen zur Sozialpolitik, 1979, op.cit., p.6.
Table 12.

Senior Staff in the Chemical Industry 1964 and 1976.

<table>
<thead>
<tr>
<th>Category</th>
<th>1964 No</th>
<th>% (1)</th>
<th>1976 No</th>
<th>% (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Total Senior Staff</td>
<td>-</td>
<td>-</td>
<td>53,713</td>
<td>8.9</td>
</tr>
<tr>
<td>2. Senior Managerial Staff</td>
<td>-</td>
<td>-</td>
<td>24,199</td>
<td>4.0</td>
</tr>
<tr>
<td>3. Non-academically qualified Senior Staff (excluding cat.2)</td>
<td>13,743</td>
<td>3.0</td>
<td>22,930 (2)</td>
<td>3.8</td>
</tr>
<tr>
<td>4. Academically qualified:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Staff</td>
<td>14,487</td>
<td>3.1</td>
<td>23,188</td>
<td>3.8</td>
</tr>
<tr>
<td>Chemists</td>
<td>6,957</td>
<td>48.0 (3)</td>
<td>9,379</td>
<td>40.5 (3)</td>
</tr>
<tr>
<td>Engineers</td>
<td>2,620</td>
<td>18.1</td>
<td>4,286</td>
<td>18.5</td>
</tr>
<tr>
<td>Other Scientists</td>
<td>3,110</td>
<td>21.5</td>
<td>4,529</td>
<td>19.5</td>
</tr>
<tr>
<td>Lawyers</td>
<td>318</td>
<td>2.2</td>
<td>493</td>
<td>2.1</td>
</tr>
<tr>
<td>Economists and Business Studies</td>
<td>1,374</td>
<td>9.5</td>
<td>3,317</td>
<td>14.3</td>
</tr>
<tr>
<td>Other disciplines</td>
<td>108</td>
<td>0.7</td>
<td>1,184</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Source: Zahlen zur Sozialpolitik, 1979, op.cit., p.11.

(1) Percentage of all employees.
(2) Includes graduates of Fachhochschulen.
(3) Of total academically qualified.
Table 13.
Sectoral Development of the West German Chemical Industry.

<table>
<thead>
<tr>
<th>Sector</th>
<th>Percentage of Product Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inorganics</td>
<td>1.4</td>
</tr>
<tr>
<td>Organics</td>
<td>14.9</td>
</tr>
<tr>
<td>Fertilisers</td>
<td>9.3</td>
</tr>
<tr>
<td>Plastics</td>
<td>7.1</td>
</tr>
<tr>
<td>Fibres</td>
<td>8.3</td>
</tr>
<tr>
<td>Paints</td>
<td>5.5</td>
</tr>
<tr>
<td>Soaps and Detergents</td>
<td>5.7</td>
</tr>
<tr>
<td>Cosmetics</td>
<td>2.4</td>
</tr>
<tr>
<td>Pharmaceuticals</td>
<td>9.3</td>
</tr>
<tr>
<td>Dyestuffs</td>
<td>2.5</td>
</tr>
<tr>
<td>Others</td>
<td>33.6</td>
</tr>
<tr>
<td>Total</td>
<td>100</td>
</tr>
</tbody>
</table>

Sources: W. Munde, op.cit., p.537, own calculations.
Table 14.

Prices of Chemical Products compared with Industrial Products in general 1969-1978.

<table>
<thead>
<tr>
<th>Year</th>
<th>Industrial Products</th>
<th>Chemical Products</th>
<th>Consumer Products</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>All</td>
<td>Inorganics</td>
<td>Organics</td>
</tr>
<tr>
<td>1969</td>
<td>95.3</td>
<td>97.7</td>
<td>103.3</td>
</tr>
<tr>
<td>1970</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>1971</td>
<td>104.3</td>
<td>102.2</td>
<td>96.0</td>
</tr>
<tr>
<td>1972</td>
<td>107.0</td>
<td>104.1</td>
<td>92.5</td>
</tr>
<tr>
<td>1973</td>
<td>114.1</td>
<td>106.0</td>
<td>102.7</td>
</tr>
<tr>
<td>1974</td>
<td>129.4</td>
<td>119.5</td>
<td>175.6</td>
</tr>
<tr>
<td>1975</td>
<td>135.5</td>
<td>137.6</td>
<td>160.1</td>
</tr>
<tr>
<td>1976</td>
<td>140.8</td>
<td>138.8</td>
<td>159.7</td>
</tr>
<tr>
<td>1977</td>
<td>144.5</td>
<td>142.9</td>
<td>151.2</td>
</tr>
<tr>
<td>1978</td>
<td>146.3</td>
<td>145.7</td>
<td>141.2</td>
</tr>
</tbody>
</table>

Source: Statistische Jahrbücher, 1979, op.cit., p.473f.

Own calculations.
Table 15.


<table>
<thead>
<tr>
<th>Region</th>
<th>1st Negotiation</th>
<th>2nd Negotiation</th>
<th>Joint conciliation</th>
<th>3rd Negotiation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baden-Württemberg</td>
<td>23rd May</td>
<td>3rd June</td>
<td>15th June</td>
<td>15th June</td>
</tr>
<tr>
<td>Bayern</td>
<td>8th June</td>
<td>24th May</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Berlin</td>
<td>24th May</td>
<td>6th June</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bremen</td>
<td>14th June</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hamburg</td>
<td>13th May</td>
<td>25th May</td>
<td>9th June</td>
<td></td>
</tr>
<tr>
<td>Hessen</td>
<td>4th April</td>
<td>19th April</td>
<td>27th April</td>
<td></td>
</tr>
<tr>
<td>Niedersachsen</td>
<td>17th May</td>
<td>27th May</td>
<td>10th June</td>
<td></td>
</tr>
<tr>
<td>Nordrhein</td>
<td>6th April</td>
<td>21st April</td>
<td>10th May</td>
<td>4th June</td>
</tr>
</tbody>
</table>

Agreement

Adjourned

Broke down

Interrupted
<table>
<thead>
<tr>
<th>Region</th>
<th>Negotiations</th>
<th>Outcome</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rheinland-Pfalz</td>
<td>1st Negotiation on 7th April</td>
<td>Adjourned</td>
</tr>
<tr>
<td></td>
<td>2nd Negotiation on 20th April</td>
<td>Broke down</td>
</tr>
<tr>
<td></td>
<td>Joint conciliation on 9th May</td>
<td>Broke down</td>
</tr>
<tr>
<td></td>
<td>Re-opening of Negotiations on 4th June</td>
<td>Agreement</td>
</tr>
<tr>
<td>Saarland</td>
<td>1st Negotiation on 27th June</td>
<td>Agreement</td>
</tr>
<tr>
<td>Schleswig-Holstein</td>
<td>1st Negotiation on 26th May</td>
<td>Adjourned</td>
</tr>
<tr>
<td></td>
<td>2nd Negotiation on 16th June</td>
<td>Agreement</td>
</tr>
<tr>
<td>Westfalen</td>
<td>1st Negotiation on 10th May</td>
<td>Adjourned</td>
</tr>
<tr>
<td></td>
<td>2nd Negotiation on 16th May</td>
<td>Adjourned</td>
</tr>
<tr>
<td></td>
<td>3rd Negotiation on 26th May</td>
<td>Broke down</td>
</tr>
<tr>
<td></td>
<td>Re-opening of Negotiations on 7th June</td>
<td>Agreement</td>
</tr>
</tbody>
</table>

Sources: Chemie-Tarifrunde 1977, op.cit., p.22f.
Table 16

Issues which may be decided by a works conciliation committee under the compulsory procedure.

<table>
<thead>
<tr>
<th>BetrVG 72 - Section</th>
<th>Issue</th>
<th>Called By</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Section 37. 6</td>
<td>Attendance of training and education courses — works council</td>
<td>M</td>
</tr>
<tr>
<td>2. Section 37. 7</td>
<td>Release of works council for education</td>
<td>M</td>
</tr>
<tr>
<td>3. Section 38. 1</td>
<td>Release of works council to carry out duties</td>
<td>M</td>
</tr>
<tr>
<td>4. Section 39. 1</td>
<td>Consultation times of works council</td>
<td>M/WC</td>
</tr>
<tr>
<td>5. Section 47. 6</td>
<td>Size of Company Council</td>
<td>M/WC</td>
</tr>
<tr>
<td>6. Section 55. 4</td>
<td>Size of Enterprise Council</td>
<td>M/WC</td>
</tr>
<tr>
<td>7. Section 65. 1</td>
<td>Education for apprentice representatives</td>
<td>M</td>
</tr>
<tr>
<td>8. Section 69.</td>
<td>Consultation time of apprentice representative</td>
<td>M/WC</td>
</tr>
<tr>
<td>9. Section 72. 6</td>
<td>Magnitude of Company Apprentice committee</td>
<td>M/WC</td>
</tr>
<tr>
<td>10. Section 85. 2</td>
<td>Settlement of grievances between works council and employers</td>
<td>WC</td>
</tr>
<tr>
<td>11. Section 87.</td>
<td>Codetermination Issues</td>
<td>M/NC</td>
</tr>
<tr>
<td>12. Section 91.</td>
<td>Disagreement arising out of job changes, working environment</td>
<td>M/NC</td>
</tr>
<tr>
<td>13. Section 94. 1 &amp; 2</td>
<td>Staff questionnaires, employment criteria, personal data — disagreement arising out of these</td>
<td>M/NC</td>
</tr>
<tr>
<td>14. Section 95. 1</td>
<td>Guidelines for the selection of employees for recruitment, transfer, regrading and dismissal</td>
<td>M</td>
</tr>
<tr>
<td>15. Section 98. 1 &amp; 3 &amp; 6</td>
<td>Implementation of education sources and selection of participants.</td>
<td>M/NC</td>
</tr>
</tbody>
</table>
### Table 16 Continued

<table>
<thead>
<tr>
<th>BetrVG 72 - Section</th>
<th>Issue</th>
<th>Called By</th>
</tr>
</thead>
<tbody>
<tr>
<td>16. Section 102. 6</td>
<td>Dispute over dismissals if a works council agreement stipulates consent of works council</td>
<td>M/NC</td>
</tr>
<tr>
<td>17. Section 109</td>
<td>Information from the economic committee</td>
<td>M/NC</td>
</tr>
<tr>
<td>18. Section 112. 2 &amp; 3</td>
<td>Reconciliation of interests in the case of alterations and social compensation plans</td>
<td>M/NC</td>
</tr>
</tbody>
</table>

M = Management  
WC = Works Council

PROCEDURE FOR THE ESTABLISHMENT OF WORKS CONCILIATION COMMITTEE

Employer or Works Council calls for conciliation

Employer/Works Council consult over (a) Chairman and (b) number of assessors

Agreement

Conciliation Committee is formed

Positive result

Voluntary Agreement

Chairman imposes decision

Accepted

2 weeks

Appeal to Labour Court

non-Agreement

Labour Court decides on a) competence of conciliation committee b) chairman c) Number of assessors

Negative Result

Conciliation Committee not formed

After: K. Koch, Conciliation in West Germany, op. cit.
Appendix 2

Questionnaires.

2.1 Structured Questionnaires (Agrochemie AG).

2.1.1 Industrial Relations Questionnaire.


1. Ich möchte mich zunächst einmal mit Ihnen über Ihre Arbeit unterhalten. Was üben Sie zur Zeit für eine Tätigkeit aus?
Genaue Bezeichnung der Tätigkeit:

2. Müssen Sie bestimmte Vorschriften, Regeln oder Richtlinien bei Ihrer Arbeit beachten?

<table>
<thead>
<tr>
<th>Antwort</th>
<th>Wert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ja, Unfallverhütung</td>
<td>1</td>
</tr>
<tr>
<td>Ja, Betriebsanweisung</td>
<td>2</td>
</tr>
<tr>
<td>Ja, Arbeitsordnung</td>
<td>3</td>
</tr>
<tr>
<td>Ja, sonstige (welche?)</td>
<td>4</td>
</tr>
<tr>
<td>Nein</td>
<td>5</td>
</tr>
<tr>
<td>WN (1)</td>
<td>0</td>
</tr>
<tr>
<td>NE</td>
<td>x</td>
</tr>
<tr>
<td>KA</td>
<td>y</td>
</tr>
</tbody>
</table>

1. WN = Weiss nicht (Don't know)
NE = Nicht einordnen (Not classifiable)
KA = Keine Antwort (No answer)
3. Hat sich die Arbeitsbelastung verändert, seitdem Sie an diesem Arbeitsplatz arbeiten?
Ja 1
Nein 2
WN 0
NE x
KA y
Wenn ja: wie?
Durch:
Mehr physische Belastung 1
Mehr psychische Belastung 2
Mehr Belastung wegen Personen 3
Weniger physische Belastung 4
Weniger psychische Belastung 5
Weniger Belastung wegen Personen 6
z.T. mehr, z.T. weniger 7
NE x
KA y

4. Werden Sie Ihrer Leitung entsprechend bezahlt?
Ja 1
Nein 2
WN 0
NE x
KA y

5. Was kann Ihre Arbeit hier am meisten erschweren?
Mangelnde Zusammenarbeit mit Mitarbeitern 1
Falsches Vorgesetztenverhalten 2
Fehlende Information der Betriebsführung 3
Arbeitsbedingungen 4
Arbeitssicherheit 5
Arbeitsbelastung 6
Nichts 7
WN 0
NE x
KA y
Was noch? (Ziffer wie oben)
6. Sind Sie mit Ihrer jetzigen Arbeit zufrieden oder unzufrieden?

Sehr zufrieden 1
Eher zufrieden 2
Teils/teils 3
Eher unzufrieden 4
Sehr unzufrieden 5

WN 0
NE x
KA y

Können wir dieses Urteil ein wenig präzisieren. Was sind die guten, was sind die schlechten Seiten Ihrer Arbeit?

Arbeitsinhalt (Qualifiziertheit, Interessantheit)
Arbeitsbelastung
Arbeitssicherheit
Verdienst/Bezahlung
Schichtarbeit
Sonstige arbeits/betriebsunspezifische Gründe
Pos. – 1, neg. – 2, WN – 0, NE – x, KA – y.

7. Was könnte Ihre Arbeit hier erleichtern?

Bessere technische Einrichtung 1
Bessere technische Abläufe 2
Bessere Arbeitsorganisation 3
Nichts 4
WN 0
NE x
KA y

8. Arbeiten Sie gern oder ungern Schicht?

Ja 1* * Können Sie das etwas näher begründen?
Manchmal 2*
Nein 3*
Normalschicht 4
WN 0
NE x
KA y
9. Man hört immer wieder zwei entgegengesetzte Meinungen über die Zukunft der Arbeiter:


Welcher dieser zwei Meinungen stimmen Sie eher zu?

Keine mehr 1
Unterschiede bleiben 2
Keine der Meinungen 3
WN 0
NE x
KA y

10. Wie geht das überhaupt vor sich, wenn technische Neuerungen hier eingeführt werden?

11. Wird der technische Fortschritt Folgen für Arbeitnehmer haben? Welche?

Arbeitserleichterung 1
Einsparung von Arbeitskräften 2
Beide 3
Andere ------------------------— 4
WN 0
NE x
KA y

12. Gibt es bei Ihnen im Betrieb gewerkschaftliche Vertrauensleute?

Ja 1*
Nein, aber BetriebsVL 2*
Nein 3
WN 0
KA y
* Erfüllen die Vertrauensleute in Ihrem Betrieb ihre Aufgabe. (2)

<table>
<thead>
<tr>
<th>Antwort</th>
<th>Anzahl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ja</td>
<td>1</td>
</tr>
<tr>
<td>Teils/teils</td>
<td>2**</td>
</tr>
<tr>
<td>Nein</td>
<td>3**</td>
</tr>
<tr>
<td>WH</td>
<td>0</td>
</tr>
<tr>
<td>KA</td>
<td>y</td>
</tr>
</tbody>
</table>

** Was vernachlässigen die am ehesten?

13. Wer gibt Ihnen Anweisungen?

<table>
<thead>
<tr>
<th>Stelle</th>
<th>Anzahl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vorarbeiter</td>
<td>1</td>
</tr>
<tr>
<td>Kollege</td>
<td>2</td>
</tr>
<tr>
<td>Meister</td>
<td>3</td>
</tr>
<tr>
<td>Schichtmeister</td>
<td>4</td>
</tr>
<tr>
<td>Betriebsassistent</td>
<td>5</td>
</tr>
<tr>
<td>Betriebsleiter</td>
<td>6</td>
</tr>
<tr>
<td>sonstige</td>
<td>8</td>
</tr>
<tr>
<td>Niemand</td>
<td>9</td>
</tr>
<tr>
<td>NE</td>
<td>x</td>
</tr>
<tr>
<td>KA</td>
<td>y</td>
</tr>
</tbody>
</table>

14. Sollten Ihrer Meinung nach die Forderungen der Arbeitnehmer auch heute noch mit Hilfe eines Streiks durchgesetzt werden, falls andere Mittel erfolglos bleiben?

<table>
<thead>
<tr>
<th>Antwort</th>
<th>Anzahl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ja</td>
<td>1*</td>
</tr>
<tr>
<td>Teils/teils</td>
<td>2*</td>
</tr>
<tr>
<td>Nein</td>
<td>3</td>
</tr>
<tr>
<td>WH</td>
<td>0</td>
</tr>
<tr>
<td>NE</td>
<td>x</td>
</tr>
<tr>
<td>KA</td>
<td>y</td>
</tr>
</tbody>
</table>

2. With hindsight an intermediate question was missing here. It would have been better to ask first what the job of the lay officer was.
* Sollten Gewerkschaften auch bei politischen Auseinandersetzungen ihre Forderungen notfalls mit einem Streik durchsetzen?

Ja 1
Teils/teils 2
Nein 3
WN 0
NE x
KA y

15. Wenn Sie unverschuldet in Not geraten sollten, glauben Sie, dass Sie von der Firma Hilfe bekommen?

Ja 1
Vielleicht 2
Nein 3
WN 0, NE x, KA y

16. Wer vertritt Ihrer Ansicht nach die Interessen der Arbeitnehmer in der Gesellschaft am besten? Sie können bis zu drei Gruppen herausnehmen (Karten hingeben). (3) Wenn keine - welche und warum?

Karten:
SPD - 1, CDU/GSU - 2, FDP - 3, NPD - 4, DKP - 5.
die Unternehmer - 6, der Staat - 7, die Gewerkschaften - 8,
keine dieser Gruppen - 9. WN 0, KA y.


1. Die Grundprobleme der Arbeitnehmer sind heutzutage vom Staat gelöst; die Gewerkschaften sind deshalb heute nicht mehr notwendig.

3. Nine file index cards each with one of the groups written on it were passed to the respondent.
2. Die Grundprobleme der Arbeitnehmer sind heute zwar schon vom Staat gelöst, dennoch kann es nicht schaden, wenn die Arbeitnehmer ihre eigene Vertretung haben; auch andere Gruppen haben ihre eigene Verbände und Organisationen.

3. Die Gewerkschaften sind noch genauso notwendig wie früher. Wenn die Arbeitnehmer die Gewerkschaften nicht hätten, würden die Unternehmer mit ihnen machen, was sie wollen. Es kommt heute vor allem darauf an, das Erreichte abzusichern und zu schützen.

4. Die Gewerkschaften sind heute noch genauso notwendig wie früher; auch heute ist die wirtschaftliche und politische Lage der Arbeitnehmer unsicher, nur mit einer starken Gewerkschaft kann diese Lage geändert werden.

5. Keine dieser Meinungen

Man hört auch zwei andere Meinungen über die Gewerkschaften.

1. Einige sagen, die Gewerkschaften wissen gar nicht mehr richtig, worauf es ihren Mitgliedern wirklich ankommt; deshalb können sie die Interessen ihrer Mitglieder nicht mehr richtig vertreten.

2. Andere sagen, die Gewerkschaften wissen sehr gut, was die Probleme ihrer Mitglieder sind. Sie vertreten wirklich die Interessen ihrer Mitglieder.

Welcher Meinung neigen Sie am ehesten zu?
134

Kennen die Interessen nicht richtig 1*
Vertreten die Interessen 2*
Keine der Meinungen 3*
WN 0
NE x
KA y

* Können Sie mir diese Meinung noch ein wenig erläutern?

19. (a) Worauf kommt es bei einem guten Vorgesetzten besonders an?

Gerechtigkeit 1
Fachkönne 2
Verständnis, gute Behandlung 3
sonstige 4
WN 0
NE x
KA y

(b) Wie schätzen Sie Ihren Vorgesetzten ein?

Gut 1
Eher gut 2
Teils/teils 3
Eher schlecht 4
Schlecht 5
WN 0
NE x
KA y

20. Manche meinen, dass die Gewerkschaften viel mehr für die Arbeitnehmer erreichen könnten, wenn sie nur wollten. Andere sagen: die Gewerkschaften haben ihr Mögliches getan. Was sie erreichen können, haben sie auch erreicht. Welcher dieser Meinungen stimmen Sie eher zu?
Könnten mehr erreichen 1
Teils/teils 2
Mögliches getan 3
Keine dieser Meinungen 4
WN 0
NE x
KA y

21. Was sind Ihrer Meinung nach die wichtigsten Aufgaben der Gewerkschaften? Kommentar:

22. Sollten die Arbeitnehmer ihre Rechte notfalls durch Streik verteidigen, wenn ihre Firma dadurch wirtschaftlich geschadet wird?
Ja 1
Manchmal 2
Mein 3
WN 0
NE x
KA y

23. Gelegentlich treten einmal Schwierigkeiten persönlicher und sachlicher Art auf. An wem wenden Sie sich, wenn derartige Probleme vorkommen?
(a) bei persönlichen Schwierigkeiten:

Vorgesetze 1 Vertrauensmann 5
Meister 2 Kollegen 6
Personalabteilung 3 Niemand 7
Betriebsrat 4 NE x
KA y

(b) bei sachlichen Schwierigkeiten aus der Arbeit heraus:

Vorgesetze 1 Kollegen 5
Meister 2 Niemand 6
Betriebsrat 3 NE x
Vertrauensmann 4 KA y

Eine andere: Man kann gegen die Funktionäre sagen, was man will, in erster Linie geht es ihnen schon darum, die Interessen der Mitglieder wirkungsvoll zu vertreten.

Welcher Meinung neigen Sie am ehesten zu?

- Personliche Vorteile 1
- Interessen der Mitglieder 2
- Keine der Meinungen 3

25. Können Sie mir aus diesen Kärtchen die vier Forderungen nennen, für die sich Ihrer Meinung nach die Gewerkschaften am stärksten einsetzen sollen?

- Kurzere Arbeitszeit 1
- Gerechtere Vermögensbildung 2
- Höhere Löhne 3
- Ausweitung der Mitbestimmung 4
- Sicherung der Demokratie 5
- Mehr Urlaub 6
- Sicherung der Preisstabilität 7
- Mehr Schutz vor Arbeitslosigkeit 8
- Stärkere Einfluss auf Regierung und Parlament 9
- Mehr Schutz vor betrieblicher Rationalisierung a
- Bessere Altersversorgung b
- Bessere Ausbildungsmöglichkeiten c
- Herabsetzung des Rentenalters d

WN 0
NE x
KA y

4. 13 Index cards with these categories written on them were passed to the respondent whilst reading the question.
26. Werden Betriebsvereinbarungen bei Ihnen im Betrieb ausgehängt?

<table>
<thead>
<tr>
<th>Antwort</th>
<th>Wert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ja</td>
<td>1*</td>
</tr>
<tr>
<td>Nein</td>
<td>2</td>
</tr>
<tr>
<td>WN</td>
<td>0</td>
</tr>
<tr>
<td>KA</td>
<td>y</td>
</tr>
</tbody>
</table>

* Lesen Sie auch die ausgehängten Vereinbarungen?

<table>
<thead>
<tr>
<th>Antwort</th>
<th>Wert</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ja, immer</td>
<td>1</td>
</tr>
<tr>
<td>Ja, manchmal</td>
<td>2</td>
</tr>
<tr>
<td>Nein</td>
<td>3</td>
</tr>
<tr>
<td>WN</td>
<td>0</td>
</tr>
<tr>
<td>KA</td>
<td>y</td>
</tr>
</tbody>
</table>

27. Wie kommt eine Betriebsvereinbarung zustande?

Verhandlung zwischen BR und Man. 1
Andere Meinung ____________________________ 2
_________________________________________ 2
WN 0
KA y

28. Wissen Sie welche Aufgaben der Betriebsrat hat?

Gesetze usw. eingehalten (Aufpassen) 1
Massnahmen (Vorteilhaft für AN) beantragen 2
Vertretung 3
Kinderheitenschutz im Betrieb 4
Mitbestimmungsrechte (allgemein) 5
Soziale Mitbestimmung 6
Personelle Mitbestimmung 7
Wirtschaftliche Mitwirkung 8
Betriebsvereinbarungen 9
Arbeitsschutz a
Mitbestimmung bei Kündigung b
Sonstige ____________________________ c
WN 0
NE 1
KA y
29. Haben Sie sich an den Betriebsratswahlen in diesem Jahr beteiligt?

Ja 1
Nein* 2
Konnte nicht (Urlaub, krank usw) 3
WN 0 KA y
* Warum, nicht?

30. Erfüllt der Betriebsrat seine Aufgabe oder vernachlässigt er etwas?

Ja, erfüllt Aufgabe 1
Teils/teils 2*
Nein, vernachlässigt Aufgabe 3*
WN 0 NE x KA y
* Welche Aufgabe vernachlässigt er am ehesten?
Warum?

31. Gibt es bei Ihnen im Betrieb Betriebsversammlungen?

Ja 1*
Nein 2 WN 0 KA y
* Wie oft?
Alle 0-1 Monat 1
Alle 2-3 Monate 2
Alle 4-6 Monate 3
Alle 7-12 Monate 4
Gelegentlich 5
WN 0 NE x KA y
* Gehen Sie auch dahin?
Ja, immer 1**
Manchmal 2**
Niemals 3**
KA y

** Warum?

32. Gibt es im Betrieb ein oder mehrere Betriebsratsmitglieder, die von ihrer ursprünglichen Tätigkeit wegen ihres Amts freigestellt sind?

Ja 1*
Nein 2
WN 0
KA y

* Meinen Sie dass so etwas gut ist, oder nicht?

Gut 1
Vor- und Nachteile 2**
Nicht gut 3**
WN 0
KA y

** Könnten Sie das etwas näher begründen?

33. Haben Sie den Eindruck, dass der Betriebsrat die Interesse der Belegschaft gegenüber der Geschäftsleitung hart genug vertritt, oder ist das nicht der Fall?

Ja 1
Teils/teils 2
Nein 3
WN 0
NE x
KA y

34. Glauben Sie, dass der Betriebsrat genügend Rechte hat, um sich voll für die Interessen der Belegschaft einzusetzen, oder ist das nicht der Fall?
34. (Contd)
Ja 1 Hat zuviele Rechte 4
Teils/teils 2* Hat genugend Rechte, nutzt
Nein 3* sie aber nicht 5
WN 0 NE x, KA y
* An welche zusätzliche Rechte denken Sie dabei?

35. Mit wievielen Kollegen haben Sie bei der Arbeit am meisten zu tun?
Keine 1 (5)
Mit einem 2
Mit mehreren 3
Wechselt 4
NE x
KA y

36. Gibt es in Ihrem Betrieb bestimmte Dinge, die Geschäftsleitung nicht ohne die Zustimmung des Betriebsrats durchführen darf?
Was?
Einstellung 1
Versetzung 2
Kündigung 3
soziale Mitbestimmung 4
Ein/Umgruppierung 5
Sonstige ------------------ 6
WN 0
NE x
KA y

5. The coding system on this question was found to be relatively ineffective since work groups were rather larger than expected. A coding system of the type:

0, 1, 2-5, 6-10, 10+

would have been better.

(Liste vorlesen)

Unfallschutz
Sozialeistungen
Sicherheit vor Arbeitslosigkeit
Verhalten der Vorgesetzten
Bezahlung
Aufstiegsmöglichkeiten
Verhalten der Kollegen
Sehr Pos. Eher Pos. Teils/teils Eher Neg. Sehr Neg.

1 2 3 4 5

WN 0, NE x, KA y.

38. Was verstehen Sie unter Mitbestimmung?

Arbeitsplatzbezogen 1
Betriebsbezogen 2
Unternehmensbezogen 3
Gesamtwirtschaftsbezogen 4

WN 0
NE x
KA y

39. Welche betriebliche Sozialeistungen (6) halten Sie für wichtig

Sicherung für Lebensrisiken 1
Gesundheitsfür- und vorsorge 2
Bildungshilfen 3

6. cf. Chapter 1 above for the problems which this term caused.
<table>
<thead>
<tr>
<th>39. (Contd)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Finanzhilfen 4</td>
</tr>
<tr>
<td>Betriebliche Zusatzzahlungen 5</td>
</tr>
<tr>
<td>Sonstige 6</td>
</tr>
<tr>
<td>WN 0</td>
</tr>
<tr>
<td>NE x</td>
</tr>
<tr>
<td>KA y</td>
</tr>
<tr>
<td>Keine 7</td>
</tr>
</tbody>
</table>

40. Welche Eigenschaften sollte Ihrer Meinung nach eine gute Firmenleitung haben?

<table>
<thead>
<tr>
<th>Eigenschaften</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wirtschaftliche Leistung 1</td>
</tr>
<tr>
<td>Soziale Betriebsführung 2</td>
</tr>
<tr>
<td>Technische Arbeitsorganisation 3</td>
</tr>
<tr>
<td>Sonstige 4</td>
</tr>
<tr>
<td>WN 0</td>
</tr>
<tr>
<td>NE x</td>
</tr>
<tr>
<td>KA y</td>
</tr>
</tbody>
</table>

41. Was sollten mit den betrieblichen Sozialleistungen überhaupt passieren?

<table>
<thead>
<tr>
<th>Maßnahme</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nichts 1</td>
</tr>
<tr>
<td>Ausbauen 2</td>
</tr>
<tr>
<td>Umbauen (tariflich absichern) 3</td>
</tr>
<tr>
<td>Abbauen 4</td>
</tr>
<tr>
<td>WN 0</td>
</tr>
<tr>
<td>NE x</td>
</tr>
<tr>
<td>KA y</td>
</tr>
</tbody>
</table>
2.1.2. Statistical Questionnaire (Personal History)\(^7\)

Zum Schluss möchte ich Sie noch um einige statistische Angaben bitten. Ihr Name wird grundsätzlich nicht notiert.

1. Alter?

1 bis 18 Jahre
2 19-20 Jahre
3 21-25 Jahre
4 26-30 Jahre
5 31-35 Jahre
6 36-40 Jahre
7 41-45 Jahre
8 46-50 Jahre
9 51-55 Jahre
10 56-60 Jahre
11 61 und älter

2. Familienstand?

1 Ledig
2 Verheiratet
3 Verwitwet
4 Geschieden

3. Haben Sie Kinder?

1 Kein Kind
2 Ein Kind
3 Zwei Kinder
4 Drei Kinder und mehr

\(^7\) It was discovered towards the end of the study at Agrochemie AG that certain of these questions, particularly those on parentage and schooling, had caused a significant amount of consternation amongst members of the workforce. The reason for this was failure to see the relevance of these questions and it led to a couple of refusals.
4. Welchen Beruf übt oder übte Ihr Vater aus?

1 Facharbeiter, nichtselbständiger Handwerker
2 Angelehrter Arbeiter
3 Hilfsarbeiter
4 Leitende Angestellte
5 Industriemeister
6 Nicht-leitende Angestellte
7 Einfache Beamte
8 Mittlere und gehobene Beamte
9 Höhere Beamte
a Selbständige im Handel und Gewerbe
b Landwirte
c Freie Berufe
d Berufssoldaten
e Sonstiges
0 WN
y KA

5. Welche Schulbildung haben Sie?

1 Sonderschule
2 Volksschule
3 Mittelschule/Oberschule ohne mittlere Reife
4 Mittlere Reife
5 Oberschule mit mittlere Reife
6 Abitur
y KA

6. Wie war eigentlich Ihre Berufsausbildung?

1 Abgeschlossene Lehre als

2 Chemiefacharbeiter
3 Andere Facharbeiterausbildung
4 Lehre abgebrochen
5 Keine Lehre
y KA
7. Nach welcher Lohnform werden Sie bezahlt?
1 Einzelakkord
2 Gruppenakkord
3 Stundenlohn
4 Grundlohn mit Prämie
5 Monatslohn
6 Monatagehalt
7 Monatagehalt mit Prämie
8 Andere Entlohnungsformen
y KA

8. Wie hoch ist Ihr durchschnittlicher monatlicher Netto-Verdienst?
1 Unter 1000
2 1000-1199
3 1200-1399
4 1400-1599
5 1600-1799
6 1800-1999
7 2000-2199
8 2200-2399
9 über 2400
y KA

9. Wieviel davon haben Sie ungefähr durch Überstunden verdient?
1 Keine Überstunden
2 bis 5%
3 5 - 10%
4 Mehr als 10%
y KA
10. Seit wann sind Sie in diesem Werk beschäftigt?
   1 Bis 3 Monate
   2 Bis 6 Monate
   3 Bis 9 Monate
   4 Bis 1 Jahr
   5 Bis 2 Jahre
   6 Bis 5 Jahre
   7 Bis 10 Jahre
   8 Bis 15 Jahre
   9 Mehr als 15 Jahre
   y KA

11. Arbeiten Sie zur Zeit in Wechselschicht?
   1 Ja
   2 Nein
   3 Nein, 2-Schicht
   y KA

12. Sind Sie gewerkschaftlich organisiert?
   1 Ja +
   2 Nein*
   y KA
   * Waren Sie gewerkschaftlich organisiert?
   1 Ja
   2 Nein
   y KA

13. Haben Sie eine gewerkschaftliche Funktion inne?
   1 Ja *
   2 Nein
   y KA
   * Welche Funktion?
   1 Vertrauensmann
   2 Betriebsrat
   3 Sonstiges
   y KA

Ich danke Ihnen sehr für Ihre Mitarbeit
NUR FÜR INTERVIEWER

A. Ort des Interviews

B. Datum

C. Dauer (min)

D. Bei dem Interview war ich mit dem Befragten:
   1 Allein
   2 Nicht allein, --- andere waren ansehend

E. Der Befragte folgte dem Interview
   1 mit grossen Interesse
   2 mit Interesse
   3 weder interessiert noch gleichgültig
   4 gleichgültig
   5 ungeduldig, wollte abbrechen

F. Besondere Schwierigkeiten?
   1 Keine
   2 Bei:
   3 Sprachlich

G. Werk?
2.2. Guidelines for Informal Focused Interviews (Germany)

2.2.1. Works Councillors and Lay Officers (Agrochemie AG)

1. Job in works.
2. Main industrial relations problems in chemical industry/works.
3. Influence of technology on industrial relations.
4. Influence of workforce structure and workplace organisation on industrial relations.
5. Personal history of respondent - background on offices held.
6. Structure of works council.
7. Structure of lay officers' group.
8. Elections to works council/lay officer posts.
9. Role of various committees, people of importance in organisations.
10. Role of works council.
11. Role of lay officers.
12. Time required for tasks.
13. Facilities available for works councillors/lay officers.
14. Hindrances to fulfilment of tasks.
15. Information available.
17. Involvement in works council agreement negotiations.
18. Frequency of contact between works councillors and lay officers. Relationships between these groups.
21. Role of conciliation committee.
22. Wage negotiations in the works.
23. Contacts with management.
24. Degree of trade union organisation.
25. Influence of workplace organisation on social contact during working hours and on the fulfilment of various representative roles.
26. Passing of information on to the workforce.
27. Willingness to strike - personal and general.
28. Company wage structure.
29. Attendance at education courses.
30. Contacts with trade union district and full-time officers in general.
31. Power groups within trade union.
33. Importance of legislation in industrial relations.
34. Foremen - role, trade union organisation and attitudes.
35. Radical groups and the trade union.
36. Disciplinary procedures.
37. Shift work.
38. Any other points.
39. Statistical questions. (8)

2.2.2. Management (Agrochemie AG)

1. Job in works.
2. Main industrial relations problems in chemical industry/works.
3. Influence of technology on industrial relations.
4. Influence of workforce structure and workplace organisation on industrial relations.
5. Grievance solution and complaints procedure.
6. Education courses (especially industrial relations) attended.
7. Contacts with works councillors and lay officers. Relationships with these groups.
8. Contacts with full-time trade union officers.
9. Role of the personnel department.
10. Disputes and willingness of the workforce to strike.
11. Management hierarchy and decision powers.
12. Senior managerial staff - representative councils.
13. VAA.
14. Foremen: role, attitudes and training.
15. Shift work.
16. Contacts with the workforce.
17. Problem solution - personal and work problems.
18. Absenteeism.

8. As in Section 2.1.2.
22. Role of legislation in industrial relations.
25. Statistical questions. (9)

2.2.3. Initial trade union interviews.

1. Main problems in chemical industry industrial relations. (10)
2. Influence of technology on industrial relations.
3. Influence of high percentage white collar staff in the chemical industry on industrial relations.
4. Influence of shift work – particularly on trade union work. (Types of shift work).
7. Works council elections.
8. Lay officers elections.
10. Co-operation with DAG.
11. Collective bargaining committees: composition, elections, types, numbers, size, form of negotiations. (12)
12. Employers' associations in the chemical industry.
13. Internal relations in the union.
14. Industrial representation within the union.
15. Collective bargaining at works/company level. (13)
16. Relations and contacts with DGB.
17. Internal union democracy.

9. Ibid.
10. Unless otherwise specified these questions refer to the chemical industry.
11. Later a specific questionnaire guideline was developed on this subject, see Section 2.2.14.
12. Detailed question guidelines were also developed to deal with this subject, see Section 2.2.13.
21. Influence of the new "labour director".
22. Relations with management.

2.2.4. Guideline for Members of Union Executive Committee.

1. Personal history, background in union.
2. Main problems of industrial relation in the chemical industry.
3. Influence of technology on industrial relations.
4. Primary trade union tasks at present time.
5. Influence of high percentage of white collar staff on industrial relations in the chemical industry. (Academic staff).
6. Questions on conciliation and arbitration. (14)
7. Role of the national executive committee.
8. Position of lay officials on the executive committee.
9. Frequency of meetings - committee structure.
10. Lay officers, particularly position in union and rights.
11. Contacts with managers.
12. Strikes and disputes.
15. Internal union democracy.
17. National Conferences.
18. Relations and contacts with DGB.
22. Press in industrial relations in general.

2.2.5. Guideline for Regional Secretaries and Regional Officers.

1. Personal history - background in union.
2. Main problems in chemical industry labour relations.
3. Influence of technology on industrial relations.
4. Main trade union tasks at the present time.

14. As in Sections 2.2.15 and 16 below.
5. Influence of the high percentage of white-collar staff on industrial relations. (Academic staff).

6. Position and role of the region within the union organisation. Number of full-time officials and other employees. Committee structure. (Minority interests).

7. Personal tasks, and breakdown of work load.


10. Employers' associations in chemicals.

11. Relationship with DAG – particularly for bargaining.

12. Disputes.

13. Contacts with management.

14. Contacts and relationships with various groups within union, e.g. lay officers, etc.

15. Co-operation with other regions within union.

16. Inter-union (DGB) contacts.

17. Regional conferences: frequency, form, decision making power, delegate system, internal democracy.


20. Changes in the role of the supervisory board.

21. Role of the new "labour director".

22. Influence of legislation in general on industrial relations.

23. Press in industrial relations.


2.2.6. Guideline for District Secretaries and District Officers.

1. Personal history – background in union.

2. Main labour relations problems in the chemical industry.

3. Influence of technology on industrial relations.

4. Influence of workplace organisation on industrial relations.

5. Main trade union tasks at present time.

6. Influence of high percentage of white-collar staff on industrial relations. (Academic staff).

7. District structure and role within union organisation: size, area, industries covered, number of full-time officers, role and fulfilment.
8. Role of district committee.
9. Influence of major companies on district policy.
10. District conferences and meetings: frequency, attendance, decision making powers.
11. Education courses run.
12. Dues.
15. Influence of size of company on industrial relations.
16. Differences in relations in the largest companies.
17. Degree of organisation.
18. Works councillors: role, election, position in union.
19. Co-operation with other union bodies.
20. Influence of shift work on industrial relations.
23. Changes in the role of the supervisory board.
24. Role of the new "labour director".
25. Role of the press in industrial relations.
26. Public relations work by the union.
27. Konzertierte Aktion.
28. Influence of legislation in general on industrial relations.
29. Third party intervention - influence of government/state bodies in industrial relations.

2.2.7. Guideline for Works Councillors (background interviews on workplace industrial relations).

1. Personal history - background in union/office.
2. Main labour relations problems in chemical industry/this works.
3. Influence of technology on industrial relations.
4. Main trade union tasks at present time.
5. Influence of high percentage of white-collar staff on industrial relations. (Academic staff).
6. Relationships with management.
7. Most important levels of management for industrial relations, especially in domestic negotiations.
8. Management hierarchy - influence of various levels.
9. Contacts with representatives of employers' associations.
10. Importance of membership in employers' association to company.
11. Conciliation committee - grievance solution.
12. Relationship of works council to union.
14. Contacts with the district office and regional office of the union.
15. Contacts with other union bodies.
16. Co-operation with works councillors in other companies.
17. Relationships and contacts between full-time works councillors and the workforce.
18. Works assemblies: frequency, form, importance.
19. Influence of shift work on industrial relations.
20. Internal union democracy.
21. Works council: structure, size, union membership, relations between groups, representatives for minority groups.
22. Works council committees: number, structure, function.
23. Economics committee.
24. Main tasks of the works council - time spent on various activities.
25. Works council agreements: negotiations, content, importance.
27. Collective bargaining at company/works level.
28. Works council meetings.
29. Relationship between works council and union collective bargaining committees.
32. Changes in the role of the supervisory board.
33. Role of the new "labour director".
34. Influence of legislation in general on industrial relations.
35. Works council elections: selection of candidates, number of lists, type of elections, turnover, turnout.
36. Influence of press in industrial relations.
37. Importance of union public relations work.
38. Third party intervention - influence of government/state bodies in industrial relations.
2.2.8. Guideline for interviews with representatives of "Arbeitsring Chemie."

1. Personal history - background in industrial relations work.
2. Main labour relations problems in chemical industry.
3. Influence of technology on industrial relations.
4. Influence of high percentage of white-collar staff on industrial relations. (Academic staff).
5. Employers' associations in chemicals: structure, number, degree of organisation, function.
6. Function of internal committees: executive, meetings of members, co-ordination, etc.
7. Main tasks of employers' associations.
8. Personal tasks of respondent.
11. Collective bargaining system.
12. Collective bargaining at company/works level.
14. Contacts with the EDA.
15. Relationship between Arbeitsring and member associations.
16. Contacts between Arbeitsring and companies which belong to member associations.
17. Companies which are not members of employers' associations.
18. Relations with management and senior managerial staff.
19. Relationship with VAA.
20. Co-operation with VCI.
21. Contact with DGB/DAG central organisations.
22. Relationships with Chemical Workers' Union and contact at various levels.
23. Third party intervention - influence of government/state bodies on industrial relations.
24. Konzertierte Aktion.
25. Public relations and publicity by chemical employers' associations.
27. Education courses run by employers' associations.
30. Changes in the role of the supervisory board.
31. Role of the new "labour director".
32. Influence of legislation in general on industrial relations.
33. Conciliation and Arbitration.

2.2.9. Guideline for interview with representatives from regional employers' associations.

1. Personal history - background in industrial relations.
2. Main labour relations problems in the chemical industry.
3. Influence of technology on industrial relations.
4. Influence of the high percentage of white-collar staff on industrial relations. (Academic staff).
5. Employers' associations in chemicals.
6. Regional employers' association: structure, number of employees, committees, degree of organisation.
7. Structure and function of Arbeitsring.
8. Meeting of member companies.
9. Standing committee of members.
10. Job of regional employers' association.
11. Personal tasks of respondents.
13. Collective bargaining at company/works level.
15. Contacts with BDA and sub-organisation.
16. Contacts with member companies.
17. Contacts with non-member companies.
18. Relationships and contact with management, especially senior managerial staff.
19. VAA.
20. DGB - contacts (direct and sub-organisations).
23. Changes in the role of the supervisory board.
24. Role of the new "labour director".
25. Influence of legislation in general on industrial relations.
26. Press in industrial relations and public relations work of the employers' associations.
27. Education work of employers' associations.
28. Third party intervention - influence of government state bodies on industrial relations.
29. Konzertierte Aktion.

2.2.10. Guideline for company management (background interviews on workplace industrial relations and case study possibilities).

1. Personal history - position in company (Company structure too).
2. Production system: overview, processes, general characteristics, raw materials, products, workforce structure, shift system, maintenance.
3. Case studies.
4. Main labour relations problems in the chemical industry.
5. Influence of technology on industrial relations.
6. Influence of workplace organisation on industrial relations.
7. Influence of high percentage of white-collar staff on industrial relations. (Academic staff).
8. Personnel department - structure and function.
9. Relations with the works council - joint committees.
10. Resolution of industrial conflict within the company.
11. Conciliation committees.
12. Role of the works council.
13. Domestic bargaining, including wage matters.
15. Elections of representative bodies.
16. Contacts and relations with full-time union officials.
17. Role of lay officers/plant representatives.
18. Management hierarchy.
19. Senior managerial staff, and representative committees.
20. Management training.
21. Foremen and supervisors.
22. VAA.
23. Welfare benefits.
24. Shift work.
25. Disputes.
27. Safety.
28. Arbeitsring Chemie.
31. Changes in the role of the supervisory board.
32. Role of new "labour director".
33. Company public relations work and industrial relations.
34. Training schemes.

2.2.11. Guideline for interview with DGB officials. (15)

1. Personal background.
2. Main union tasks at present time.
3. Influence of technology on industrial relations.
4. Trade unions in the public image. The role of the press in industrial relations.
5. Third party intervention – influence of government state bodies on industrial relations.
7. Research on labour relations at German universities.
8. DAG.
9. Links between DGB and individual member unions.
10. Structure of DGB.
11. Finances of the DGB.
12. Minority union confederations (CGB, VAA, etc.)
13. EDI.
14. EDA contacts, relationships.
15. Individual employers' associations.
17. Montan co-determination.
20. Problems with the implementation of the Works Constitution Acts: co-operation, peace obligation, career officials, alienation, conflict between works councillors and lay officials.

15. A number of interviews were held to gain background information on general industrial relations matters.
21. Number of plants without a works council.
23. Role of trade union members of the supervisory board.
24. Role of the new "labour director" as compared with that in the Montan industries.
25. Attitudes about co-determination amongst various political parties and sections of society.
27. Union publications: public relations work of the unions.

2.2.12. Guideline for interviews with DAG officials.

1. Personal background.
2. Main labour relations problems in the chemical industry.
3. Influence of technology on industrial relations.
4. Influence of the high percentage of white-collar staff on industrial relations. (Academic staff).
5. Main trade union tasks at the present time.
6. Relations with DGB.
7. Relations with individual DGB unions, especially Chemical Workers' Union.
8. Relations with VAA.
9. Structure of DAG.
10. Industrial representation within DAG.
11. Lay officials/plant representatives.
12. Membership in the chemical industry.
13. Influence of large companies on industrial relations and differences between the companies.
14. BDA and Arbeitsring Chemie: relations, contacts, negotiations.
15. Third party intervention - influence of government/state bodies on industrial relations.
16. The press and industrial relations.
17. Konzertierte Aktion.
18. Conferences in the DAG.

19. Disputes.
20. Dues and benefits.
23. DAG supervisory board members.
24. Role of the new "labour director".
25. Influence of legislation in general on industrial relations.

2.2.13. Guideline for detailed interviews on collective bargaining. (17)

1. Aims of collective bargaining.
2. Initial contacts: what, when, where, frequency, who, aim.
3. Regulation of formal matters, e.g. time and place of negotiations, seating plan, chairmanship.
4. Influence of these factors.
5. Preparation of collective bargaining committees for negotiations.
6. Decisions on tactical procedures during negotiations.
7. First negotiation - form, etc.
8. How is pressure applied on other side, and by the other side.
9. Second meeting and further meetings.
10. Climate of negotiations.
11. Relations between actual bargainers and full committees.
12. Method of dealing with points.
13. Concessions - how they are made and achieved.
15. A "mock-battle"?
17. Influence of external factors (agreements in other industries, etc.) on negotiations in the chemical industry.
18. Independent regional negotiations?
19. Independent industrial negotiations?
21. Influence of the length of the negotiations.
22. Use of small bargaining committees.

17. Used basically to fill in gaps in knowledge at a later stage, (third visit).

1. Evaluation with hindsight.
2. Lessons learnt.
3. Willingness to strike and accuracy of strike ballots.
4. Evaluation of employers' offer.
5. Delays in carrying out ballot and calling the members out.
6. Preparations made by employers' associations and companies in case of a strike.
7. Works council rights in a strike.
8. Apprentices' rights in a strike.
10. Role of politicians as mediators.
11. Final agreement and satisfaction with it.
12. General attitudes towards strike in Germany.
13. Failure to call out members.
14. Strike in large chemical works.
15. Support for action in the union in general for actions of the Rheinland-Pfalz region.
16. Costs of strike preparations on both sides.
17. Membership loss due to dissatisfaction with results.

2.2.15. Guideline on joint conciliation (Schlichtung).

1. Development of joint conciliation agreements.
2. Reasons for recent revision of agreement.
3. Effects on revisions in agreement.
5. Creation of informal rules.
7. Possible changes in guidelines.
8. Place the conciliation occurs.
9. Role of collective bargaining committees in the conciliation proceedings.
10. Chairman of meeting.
11. Confidentiality of conciliation proceedings.
12. Information on case received prior to formal proceedings.
13. Composition of joint conciliation boards.
14. Putting the case to the board.
15. Use of expert "witnesses".
17. Climate of proceedings.
18. Informal means of gaining agreement.
19. Role of representatives of parties to the dispute.
20. Spokesmen for various sides.
22. Publication of the decision.
23. Role of joint conciliation in the collective bargaining system.
24. Importance of joint conciliation.
25. Tactical use of conciliation in collective bargaining.
27. Influence of external economic factors on the results of conciliation.
28. Future importance of joint conciliation.
29. Relations between representatives of the parties to the dispute and their bargaining committees.
30. Co-ordination of conciliation by national bodies, and between regions.
31. Reasons for lack of neutral chairman.
32. Influence of the state on conciliation.
33. "Requirement" for arbitration/conciliation.
34. Cooling-off period.
35. Proposals for an agreement.
37. Length of conciliation proceedings.
38. Differences in conciliation on national and regional issues.
39. The success of joint conciliation.
40. Role of political mediation.
41. Background of respondent: age, training, sex, position, experience as arbitrator/party representative, payment, means of appointment.

2.2.16. Guideline on works conciliation committees (Einigungsstellen).

1. Frequency of works conciliation committees.
2. The subjects of works conciliation cases.
3. The presence of trade union/employers' association at works conciliation committees.
5. Change in practise from BetrVG 1952 to BetrVG 1972.
6. Chairmen.
7. Assessors.
8. Witnesses and reports.
11. Other methods of industrial conflict resolution.
12. Minutes.
13. Influence of size of works.
15. Works conciliation committee for electoral reasons.
16. Works council agreements about conciliation committees.
17. Negotiations prior to works conciliation committee.
18. Background of respondent: age, training, position, experience with conciliation cases.

2.3. Guidelines for Informal Focused Interviews (UK).

2.3.1. Questionnaire on plant/manning description.

1. Name of plant.
2. Name of process.
3. Annual capacity and level of employment of capacity.
5. Type of process, i.e. continuous, batch, etc.
6. How often does the plant require a shut down for maintenance or cleaning?
7. Raw materials -
   a. Amount of each.
   b. Origins.
   c. Method of transportation to works.
   d. Method of introduction to plant.
8. Process description, including details of reactions, and breakdown of important sub-units of plant.

18. As used in exploration of the possibility of case studies, in the form finally developed to send by post to one company who wished to clarify matters this way. In substance it is very similar to the guideline used for the informal interviews.
9. Use of products - sold/processed further within the company.
10. Total workforce?
11. Number of shifts?
12. What is the shift system?
13. What does one shift consist of? (Process workers, maintenance workers, management, and others - please specify - and what are their duties, including part of plant operated.)
14. What are the normal gradings of these workers, with an explanation of the gradings please?
15. How many of the following are employed outside the shift system, and what are their jobs?
   b. Maintenance workers.
   c. Supervisors and foremen.
   d. Managers.
   e. Others, please specify.
16. How is production control carried out?
17. Is there an external maintenance department available on call?
18. Do you operate a reserve to replace people absent from shift work due to holiday, sickness, or absenteeism?
19. How are the employees paid?
   a. PER - no.
   b. time work - no.
   c. salaried staff - no.
20. What is the average breakdown of wages for a shift process worker between the following (where applicable)?
   a. National agreed rate %
   b. Local agreed rate %
   c. Overtime payments (where agreed?) %
   d. Productivity payments (ditto) %
   e. Other payments (Please specify together with where agreed) %

2.3.2. Guideline for Lay Trade Union Officers (19)

1. Function/position in works.
2. Other union offices held.

19. As used primarily at Growmore Ltd.
3. Specific labour relations problems in the chemical industry/
this works.
4. Influence of technology on industrial relations in the
chemical industry/this works.
5. Influence of the workforce structure on industrial relations.
6. Influence of the size of work groups on industrial relations.
7. Time in present office.
8. Previous background.
9. Qualifications necessary for present office.
10. Main features of function.
11. Influence of local factors on industrial relations. (Specify)
12. Contacts with management in representative function.
13. Management – importance in industrial relations policy and
practice.
14. Relations with management.
15. Foremen.
17. Changes in the role of lay officers.
18. Local union structure.
19. Union density.
20. Full-time union officers in local industrial relations.
22. Facilities provided by management.
23. Election of officers.
27. Dues and benefits.
29. Local negotiations: frequency, length, form.
30. Disputes procedure.
31. Recent disputes. (Examples).
32. Most effective type of sanction.
33. Influence of chemical process technology on speed of
industrial action.
34. Inter-union disputes.
35. Union – management committees.
36. Custom and practice.
37. Informal relations.
38. Fringe/welfare benefits.
39. Influence of nature of work on industrial relations.
40. Shift work.
41. Safety.
42. Industrial democracy.
43. Union education facilities.
44. ACAS.

2.3.3. Guideline for company management.

1. Position.
2. Specific labour relations problems in the chemical industry/this works.
3. Influence of technology on industrial relations in the chemical industry/this works.
4. Influence of workforce structure on industrial relations.
5. Influence of the size of work groups on industrial relations.
7. Background prior to appointment.
8. Qualifications required for this post.
9. Main features of job.
10. Influence of local factors on industrial relations. (Specify)
11. Absentee rates.
12. Management hierarchy in own sphere of responsibility. Roles of various levels.
13. Overall company management structure.
15. Changes in management role.
17. Contacts with employee representatives.
18. Relationships with various unions and representatives.
19. Trade union membership for senior staff.

20. Either specialist (industrial relations/personnel) or line managers.
22. Informal relations.
23. Custom and practice.
24. Facilities for trade union officers.
25. Local negotiations: form, subject, frequency, length.
26. Disputes procedure.
27. Recent disputes. (Examples).
28. Most effective types of sanction in the chemical industry.
29. Influence of chemical process technology on speed of industrial action.
30. Inter-union disputes.
31. CIA in local relations.
32. Industrial democracy.
33. Safety.
34. Fringe/welfare benefits.
35. Influence of nature of work on industrial relations.
36. Shift work.
37. ACAS.

2.3.4. Guideline for interview with representative of CIA.

1. Position in organisation.
2. History of CIA.
3. Structure: levels of organisation, areas of activity, committees, bodies, conferences, etc., No. of employees.
4. Role: general and industrial relations. (21)
5. Personal level of activity.
6. Nature of contacts with member companies.
7. Collective bargaining system - CIA involvement.
8. Conciliation and arbitration.
9. Disputes in the chemical industry,
10. Accidents and sickness.
11. Closed shop in chemical industry.
12. Influence of technology on industrial relations.
13. Shift work.
14. CBI: co-operation and role.
15. International employers' contacts.
16. British trade union structure.
17. Third party intervention - influence of government/state bodies in industrial relations.
18. Incomes policy/social contract.
22. Public relations activity of CIA.
23. Influence of media on industrial relations.

2.3.5. Guideline for interviews with trade union National Officers for the chemical industry or equivalent.

1. Personal background.
2. Union structure - industries, groups of workers, regional and branch.
3. Number of members in chemical industry/jobs held.
4. Firms organised and not organised.
5. Contacts between full-time and lay union officers.
6. Role of shop steward.
7. Branches.
8. Chemical industry conferences.
10. Main labour relations problems in the chemical industry.
11. Influence of technology on industrial relations.
12. Influence of workplace organisation on industrial relations.
13. Influence of high percentage of white-collar staff on industrial relations.
14. Shift work.
15. Custom and practice.
16. Differences between industrial relations in batch/process industries.
17. Collective bargaining system - levels.
18. Productivity bargaining.
19. Disputes procedure.
21. Disputes (recent examples).
22. Most effective type of sanctions.
23. Management and shop stewards.
24. Management - importance for industrial relations policy and practice.
25. Role of full-time officials in workplace industrial relations.
26. Contacts between union and CIA.
27. Foremen.
28. Personnel management.
29. Union recognition in the chemical industry. (Employment Protection Act).
30. Consultation and information of the workforce/union.
31. Industrial democracy.
32. Influence of legislation in general on industrial relations.
33. Third party intervention - influence of government/state bodies on industrial relations.
34. Incomes policy.
35. Role of the media in industrial relations.
36. International union contacts.
37. Trades Union and Labour Relations Act.

2.3.6. Guideline for interviews with District Officials of trade unions.

1. Personal history and background.
2. Time in office.
3. Description of the district - chemical industry traditions in area.
4. Industrial traditions in area - background of labour force.
5. Trade union organisation in companies of interest.
6. Main labour relations problems in chemical industry/area.
7. Influence of technology on industrial relations.
8. Rationalisation.
9. Influence of high percentage of white-collar staff on industrial relations.
10. Shift work.
11. Influence of workplace organisation on industrial relations.
12. Role of district officials in workplace industrial relations.
13. Position of district officials in union.
14. Main features of job - area of responsibility.
15. District structure - meetings and committees.
17. Involvement of district officials in collective bargaining.
18. Shop stewards.
20. Foremen.
21. Disputes (examples).
22. Custom and practice.
23. Involvement in disputes procedure.
24. Union recognition problems.
25. Conciliation and arbitration.
26. Influence of legislation in general on industrial relations.
27. Industrial democracy.
28. Third party intervention - influence of government/state bodies in industrial relations.
Table 1.

Job breakdown of respondents.

<table>
<thead>
<tr>
<th>Job</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craftsmen</td>
<td>0</td>
<td>11</td>
<td>11</td>
</tr>
<tr>
<td>Process Workers</td>
<td>9</td>
<td>13</td>
<td>22</td>
</tr>
<tr>
<td>Labourers</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Non managerial staff</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Supervisors (3)</td>
<td>1</td>
<td>11</td>
<td>12</td>
</tr>
<tr>
<td>Middle/Senior Management</td>
<td>1</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>Packing workers</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Apprentices</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>52</td>
<td>63</td>
</tr>
</tbody>
</table>

Table 2.

Regulations to be obeyed in the course of work.

<table>
<thead>
<tr>
<th>Type of Regulation</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Safety</td>
<td>9</td>
<td>35</td>
<td>44</td>
</tr>
<tr>
<td>Job instructions</td>
<td>4</td>
<td>19</td>
<td>23</td>
</tr>
<tr>
<td>Conditions of Service</td>
<td>0</td>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Total</td>
<td>14</td>
<td>67</td>
<td>81</td>
</tr>
</tbody>
</table>

1. Based on the structured questionnaires given in Appendix 2.1.
3. All three grades cf. Chapter 2, Section (iii)b.
4. N = total sample size = 63. This will be given when multi-response to questions is possible.
5. Relative percentage F/n where n = sample size. This reflects the percentage of respondents who named this type of regulation.
6. F. Fürstenberg, op.cit., p.257. Figures are percentages.
Table 3.
Change in work load and details of change.

<table>
<thead>
<tr>
<th>Change</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>2 18.2</td>
<td>16 38.1</td>
<td>18 34.0</td>
</tr>
<tr>
<td>Yes</td>
<td>9 81.6</td>
<td>26 61.9</td>
<td>35 66.0</td>
</tr>
<tr>
<td>Type of change: (7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>More physical work</td>
<td>3 27.3</td>
<td>4 12.1</td>
<td>7 15.9</td>
</tr>
<tr>
<td>More mental work</td>
<td>1 9.1</td>
<td>6</td>
<td>7 15.9</td>
</tr>
<tr>
<td>More work due to reduction in manning</td>
<td>2 18.2</td>
<td>15 45.5</td>
<td>17 38.6</td>
</tr>
<tr>
<td>Less physical work</td>
<td>0</td>
<td>5 15.2</td>
<td>5 11.6</td>
</tr>
<tr>
<td>Less mental work</td>
<td>1 9.1</td>
<td>0</td>
<td>1 2.3</td>
</tr>
<tr>
<td>Variable work load</td>
<td>4 36.4</td>
<td>3 9.0</td>
<td>7 15.9</td>
</tr>
<tr>
<td>Total</td>
<td>11 100</td>
<td>42 100</td>
<td>53 100</td>
</tr>
</tbody>
</table>

Table 4.
Satisfaction with level of payment (I).

<table>
<thead>
<tr>
<th>Satisfied</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>8 80.0</td>
<td>31 72.1</td>
<td>39 73.6</td>
</tr>
<tr>
<td>No</td>
<td>0 0</td>
<td>10 23.3</td>
<td>10 18.9</td>
</tr>
<tr>
<td>Don't know</td>
<td>2 20.0</td>
<td>1 2.3</td>
<td>3 5.9</td>
</tr>
<tr>
<td>Different answer</td>
<td>0 0</td>
<td>1 2.3</td>
<td>1 1.9</td>
</tr>
<tr>
<td>Total</td>
<td>10 100</td>
<td>43 100</td>
<td>53 100</td>
</tr>
</tbody>
</table>

7. It was possible, of course, that the work load had changed in more than one way. The percentages are calculated using the total number of changes.
### Table 5.
Factors which make work difficult.

<table>
<thead>
<tr>
<th>Factor</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of team work</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Working Conditions</td>
<td>13</td>
<td>19</td>
<td>32</td>
</tr>
<tr>
<td>Safety</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Work load</td>
<td>4</td>
<td>14</td>
<td>18</td>
</tr>
<tr>
<td>Shift work</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>17</td>
<td>38</td>
<td>55</td>
</tr>
</tbody>
</table>

### Table 6.
Job Satisfaction.

<table>
<thead>
<tr>
<th>Value</th>
<th>Degree of Satisfaction</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Very satisfied</td>
<td>2</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Satisfied</td>
<td>8</td>
<td>31</td>
<td>39</td>
</tr>
<tr>
<td>3</td>
<td>Neither/nor</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>4</td>
<td>Unsatisfied</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5</td>
<td>Very unsatisfied</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>11</td>
<td>46</td>
<td>57</td>
</tr>
</tbody>
</table>

8. N = 27. Some respondents had difficulty coping with this question - they could not separate the various features of their job and saw it as a total entity. Some respondents also said that nothing made their work difficult.
Table 7.
Components of job satisfaction.

Question: Können wir dieses Urteil ein wenig präzisieren. Was sind die guten, was sind die schlechten Seiten Ihrer Arbeit?

<table>
<thead>
<tr>
<th>Component</th>
<th>Acid Plant F</th>
<th>Works F</th>
<th>Sample % (10) F</th>
<th>Total % (10) F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good: Job content</td>
<td>1</td>
<td>24</td>
<td>85.7</td>
<td>25</td>
</tr>
<tr>
<td>Work load</td>
<td>2</td>
<td>5</td>
<td>35.7</td>
<td>7</td>
</tr>
<tr>
<td>Safety</td>
<td>0</td>
<td>5</td>
<td>71.4</td>
<td>5</td>
</tr>
<tr>
<td>Payment</td>
<td>1</td>
<td>8</td>
<td>80.0</td>
<td>9</td>
</tr>
<tr>
<td>Shift work</td>
<td>0</td>
<td>2</td>
<td>11.8</td>
<td>2</td>
</tr>
<tr>
<td>Sub-total Good</td>
<td>4</td>
<td>44</td>
<td>57.9</td>
<td>48</td>
</tr>
<tr>
<td>Bad: Job content</td>
<td>5</td>
<td>4</td>
<td>14.3</td>
<td>9</td>
</tr>
<tr>
<td>Work load</td>
<td>2</td>
<td>9</td>
<td>64.3</td>
<td>11</td>
</tr>
<tr>
<td>Safety</td>
<td>0</td>
<td>2</td>
<td>28.6</td>
<td>2</td>
</tr>
<tr>
<td>Payment</td>
<td>0</td>
<td>2</td>
<td>20.0</td>
<td>2</td>
</tr>
<tr>
<td>Shift work</td>
<td>2</td>
<td>15</td>
<td>88.2</td>
<td>17</td>
</tr>
<tr>
<td>Sub-total Bad</td>
<td>9</td>
<td>32</td>
<td>42.1</td>
<td>41</td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>76</td>
<td>100</td>
<td>89</td>
</tr>
</tbody>
</table>

Table 8.
Evaluation of shift work.

Question: Arbeiten Sie gern oder ungern Schicht? (Können Sie das etwas näher begründen?).

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Acid Plant F</th>
<th>Works F</th>
<th>Sample % (11)</th>
<th>Total % (11)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Positive</td>
<td>4</td>
<td>8</td>
<td>15.7</td>
<td>12</td>
</tr>
<tr>
<td>Neither/Nor</td>
<td>2</td>
<td>13</td>
<td>25.5</td>
<td>15</td>
</tr>
<tr>
<td>Negative</td>
<td>3</td>
<td>5</td>
<td>9.8</td>
<td>8</td>
</tr>
<tr>
<td>Day Workers</td>
<td>2</td>
<td>25</td>
<td>49.0</td>
<td>-</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>51</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

9. N = 37. Again a large number of respondents found it impossible to sub-divide their jobs into various features.
10. Percentage good or bad.
11. Of shift workers only.
Effects of technological progress on the differences between blue-collar workers and salaried staff.

Table 9.

Question: Man hört immer wieder zwei entgegengesetzte Meinungen über die Zukunft der Arbeitnehmer.
Welcher dieser zwei Meinungen stimmen Sie eher zu?

<table>
<thead>
<tr>
<th>Differences in Future</th>
<th>Acid Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nil</td>
<td>1</td>
<td>7</td>
<td>16.3</td>
<td>8</td>
</tr>
<tr>
<td>Same as now</td>
<td>6</td>
<td>29</td>
<td>67.4</td>
<td>35</td>
</tr>
<tr>
<td>Other opinions</td>
<td>3</td>
<td>6</td>
<td>14.0</td>
<td>9</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>1</td>
<td>2.3</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>43</td>
<td>100</td>
<td>54</td>
</tr>
</tbody>
</table>

Table 10.

The effects of technological progress.

Question: Wird der technischer Fortschritt Folgen für Arbeitnehmer haben? Welche?

<table>
<thead>
<tr>
<th>Effect</th>
<th>Acid Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Work easier (a)</td>
<td>3</td>
<td>5</td>
<td>10.6</td>
<td>8</td>
</tr>
<tr>
<td>Unemployment (b)</td>
<td>5</td>
<td>30</td>
<td>63.8</td>
<td>35</td>
</tr>
<tr>
<td>Both (a) and (b)</td>
<td>1</td>
<td>5</td>
<td>10.6</td>
<td>6</td>
</tr>
<tr>
<td>Other opinions</td>
<td>0</td>
<td>5</td>
<td>10.6</td>
<td>5</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>2</td>
<td>4.3</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>47</td>
<td>100</td>
<td>57</td>
</tr>
</tbody>
</table>
Table 11.

Fulfilment of job by lay officers.

<table>
<thead>
<tr>
<th>Fulfilment</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample F</th>
<th>Total F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4</td>
<td>44.4</td>
<td>28</td>
<td>62.2</td>
<td>32</td>
</tr>
<tr>
<td>Partly</td>
<td>3</td>
<td>33.3</td>
<td>14</td>
<td>31.1</td>
<td>17</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>6.7</td>
<td>3</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>22.2</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100</td>
<td>45</td>
<td>100</td>
<td>54</td>
</tr>
</tbody>
</table>

Table 12.

Issuers of instructions

<table>
<thead>
<tr>
<th>Instruction Issuer</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading Hand (Lh)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.9</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Supervisor (S)</td>
<td>3</td>
<td>27.2</td>
<td>12</td>
<td>23.5</td>
<td>15</td>
<td>24.2</td>
</tr>
<tr>
<td>Lh + S</td>
<td>2</td>
<td>18.2</td>
<td>15</td>
<td>29.4</td>
<td>17</td>
<td>27.4</td>
</tr>
<tr>
<td>Plant Manager (PM)</td>
<td>2</td>
<td>18.2</td>
<td>1</td>
<td>2.0</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>PM + S</td>
<td>2</td>
<td>18.2</td>
<td>4</td>
<td>7.8</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>Others</td>
<td>1</td>
<td>9.1</td>
<td>14</td>
<td>27.5</td>
<td>15</td>
<td>24.2</td>
</tr>
<tr>
<td>S + Others</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.0</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Nobody</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.9</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

12. All respondents replied positively to this first part of the question.
Table 13.

Attitudes to strike as a last resort.

Question: Sollten Ihrer Meinung nach die Forderungen der Arbeitnehmer auch heute noch mit Hilfe eines Streiks durchgesetzt werden, falls andere Mittel erfolglos bleiben?

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Yes</td>
<td>4</td>
<td>36.4</td>
<td>20</td>
</tr>
<tr>
<td>Sometimes</td>
<td>1</td>
<td>9.1</td>
<td>9</td>
</tr>
<tr>
<td>No</td>
<td>5</td>
<td>45.5</td>
<td>17</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>9.1</td>
<td>2</td>
</tr>
<tr>
<td>Total:</td>
<td>11</td>
<td>100</td>
<td>48</td>
</tr>
</tbody>
</table>

Table 14.

Attitudes to political strike.

Question: Sollten Gewerkschaften auch bei politischen Auseinandersetzungen ihre Forderungen notfalls mit einem Streik durchsetzen? (13)

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Yes</td>
<td>1</td>
<td>14.3</td>
<td>8</td>
</tr>
<tr>
<td>Sometimes</td>
<td>0</td>
<td>0</td>
<td>5</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>85.7</td>
<td>19</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>7</td>
<td>100</td>
<td>33</td>
</tr>
</tbody>
</table>

13. This question was normally only put to those respondents who answered 'yes' to the previous one. All these respondents were union members by chance.
Table 15.
Attitudes to defence of rights by strike despite economic harm to company.

<table>
<thead>
<tr>
<th>Opinion</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>9.8</td>
<td>4</td>
<td>8.0</td>
</tr>
<tr>
<td>Sometimes</td>
<td>2</td>
<td>22.2</td>
<td>10</td>
<td>24.4</td>
<td>12</td>
<td>24.0</td>
</tr>
<tr>
<td>No</td>
<td>6</td>
<td>66.7</td>
<td>26</td>
<td>63.4</td>
<td>32</td>
<td>64.0</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>11.1</td>
<td>1</td>
<td>2.4</td>
<td>2</td>
<td>4.0</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100</td>
<td>41</td>
<td>100</td>
<td>50</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 16.
Attitude to company social policy.

<table>
<thead>
<tr>
<th>Company Support</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>4</td>
<td>40.0</td>
<td>27</td>
<td>61.4</td>
<td>31</td>
<td>57.4</td>
</tr>
<tr>
<td>Perhaps</td>
<td>2</td>
<td>20.0</td>
<td>7</td>
<td>15.9</td>
<td>9</td>
<td>16.7</td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>9.1</td>
<td>4</td>
<td>7.4</td>
</tr>
<tr>
<td>Don't know</td>
<td>4</td>
<td>40.0</td>
<td>6</td>
<td>13.6</td>
<td>10</td>
<td>18.5</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>44</td>
<td>100</td>
<td>54</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 17.
Attitudes on the necessity of trade unions.

Question: Wenn wir nun einmal die Gewerkschaften herausgreifen - es gibt verschiedene Meinungen über ihre Notwendigkeit. Ich möchte Ihnen gern einige häufig geäußerte Meinungen nennen und Sie fragen, welcher Sie am ehesten zustimmen.

1. Die Grundprobleme der Arbeitnehmer sind heutzutage vom Staat gelöst; die Gewerkschaften sind deshalb heute nicht mehr notwendig. (unions unnecessary attitude).

2. Die Grundprobleme der Arbeitnehmer sind heute zwar schon vom Staat gelöst, dennoch kann es nicht schaden, wenn die Arbeitnehmer ihre eigene Vertretung haben; auch andere Gruppen haben ihre eigene Verbände und Organisationen. (Pluralist attitude).

3. Die Gewerkschaften sind noch genauso notwendig wie früher. Wenn die Arbeitnehmer die Gewerkschaften nicht hätten, würden die Unternehmer mit ihnen machen, was sie wollen. Es kommt heute vor allem darauf an, das Erreichte abzusichern und zu schützen. (Status quo class attitude).

4. Die Gewerkschaften sind noch genauso notwendig wie früher; auch heute ist die wirtschaftliche und politische Lage der Arbeitnehmer unzureichend, nur mit einer starken Gewerkschaft kann diese Lage geändert werden. (Radical unionism attitude).

(Warum stimmen Sie gerade diese Meinungen zu?)

<table>
<thead>
<tr>
<th>Degree of necessity</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unions unnecessary</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Pluralist attitude</td>
<td>4</td>
<td>36.4</td>
<td>5</td>
<td>11.1</td>
<td>9</td>
<td>16.1</td>
</tr>
<tr>
<td>Status quo class attitude</td>
<td>4</td>
<td>36.4</td>
<td>26.5(14)</td>
<td>58.9</td>
<td>30.5</td>
<td>54.5</td>
</tr>
<tr>
<td>Radical unionism attitude</td>
<td>2</td>
<td>18.2</td>
<td>10.5(14)</td>
<td>23.3</td>
<td>12.5</td>
<td>22.3</td>
</tr>
<tr>
<td>Other attitudes</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.4</td>
<td>2</td>
<td>3.6</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.2</td>
<td>2</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>45</td>
<td>100</td>
<td>56</td>
<td>100</td>
</tr>
</tbody>
</table>

14. One respondent could not decide between these two possibilities.
Table 20.
Estimation of the quality of superiors.

<table>
<thead>
<tr>
<th>Value</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Good</td>
<td>10</td>
<td>100</td>
<td>29</td>
<td>65.9</td>
<td>39</td>
<td>72.2</td>
</tr>
<tr>
<td>2 Fairly Good</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>20.5</td>
<td>9</td>
<td>16.7</td>
</tr>
<tr>
<td>3 Okay</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>9.1</td>
<td>4</td>
<td>7.4</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.5</td>
<td>2</td>
<td>3.7</td>
</tr>
<tr>
<td>5 Bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
</tbody>
</table>

Total | 10 | 100 | 44 | 100 | 54 | 100 |

Table 21.
The achievements of trade unions.

<table>
<thead>
<tr>
<th>Opinion on Achievement</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Could have achieved</td>
<td>1</td>
<td>10.0</td>
<td>8</td>
<td>18.6</td>
<td>9</td>
<td>17.0</td>
</tr>
<tr>
<td>more</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Average achievement</td>
<td>1</td>
<td>10.0</td>
<td>6</td>
<td>14.8</td>
<td>7</td>
<td>13.2</td>
</tr>
<tr>
<td>Achieved all they could</td>
<td>6</td>
<td>60.0</td>
<td>27</td>
<td>62.8</td>
<td>33</td>
<td>62.3</td>
</tr>
<tr>
<td>Neither opinion</td>
<td>2</td>
<td>20.0</td>
<td>1</td>
<td>2.3</td>
<td>3</td>
<td>5.7</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.3</td>
<td>1</td>
<td>1.9</td>
</tr>
</tbody>
</table>

Total | 10 | 100 | 43 | 100 | 53 | 100 |
### Table 22.

Most important tasks for trade unions (Open format).

<table>
<thead>
<tr>
<th>Task</th>
<th>Acid Plant</th>
<th>Works Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wages</td>
<td>5</td>
<td>23</td>
</tr>
<tr>
<td>Holidays</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>Job protection</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Leisure time</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Health and Safety</td>
<td>0</td>
<td>6</td>
</tr>
<tr>
<td>Collective bargaining</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Protect members</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Welfare benefits</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>Working conditions</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Protect economy</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Legal protection</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>12</td>
</tr>
</tbody>
</table>

| Total                     | 18         | 73           |

- **Question:** Was sind Ihrer Meinung nach die wichtigsten Aufgaben der Gewerkschaften?

- **Table 23.**

Person of trust for personal problems.

<table>
<thead>
<tr>
<th>Person</th>
<th>Acid Plant</th>
<th>Works Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior (unspecified)</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Supervisor</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>Personnel Dept.</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Works council</td>
<td>2</td>
<td>10</td>
</tr>
<tr>
<td>Work mates</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Works manager</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Nobody</td>
<td>2</td>
<td>15</td>
</tr>
</tbody>
</table>

| Total                         | 9          | 41           |

15.  \[ n \text{ (acid plant)} = 9; \ n \text{ (works sample)} = 41; \ N = 50; \ percentages \ are \ relative \ to \ sample \ size, \ which \ has \ been \ reduced \ by \ the \ number \ of \ respondents \ unable \ to \ answer. \]

16.  Some respondents were reluctant to answer this question, others did not consider that such problems affected work.
Table 24.

Person of trust for work problems.

Question: following on from Table 23 above.
(b) bei sachlichen Schwierigkeiten aus der Arbeit heraus?

<table>
<thead>
<tr>
<th>Person</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superior (unspecified)</td>
<td>7</td>
<td>16</td>
<td>23</td>
</tr>
<tr>
<td></td>
<td>63.6</td>
<td>34.8</td>
<td>40.4</td>
</tr>
<tr>
<td>Supervisor</td>
<td>4</td>
<td>21</td>
<td>25</td>
</tr>
<tr>
<td></td>
<td>36.4</td>
<td>45.7</td>
<td>43.9</td>
</tr>
<tr>
<td>Works council</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>10.9</td>
<td>8.8</td>
</tr>
<tr>
<td>Work mates</td>
<td>0</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>4.3</td>
<td>3.5</td>
</tr>
<tr>
<td>Leading hand</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Nobody</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>2.2</td>
<td>1.8</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>46</td>
<td>57</td>
</tr>
</tbody>
</table>

Table 25.

The primary interests of trade union officials.


Eine andere: Man kann gegen die Funktionäre sagen, was man will, in erster Linie geht es ihnen schon darum, die Interessen der Mitglieder wirkungsvoll zu vertreten.

Welcher Meinung neigen Sie am ehesten zu?

<table>
<thead>
<tr>
<th>Primary interest</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal interests (P)</td>
<td>2</td>
<td>10</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>20.0</td>
<td>23.8</td>
<td>23.1</td>
</tr>
<tr>
<td>Members interests (M)</td>
<td>5</td>
<td>15</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>50.0</td>
<td>35.7</td>
<td>38.5</td>
</tr>
<tr>
<td>Both P &amp; M</td>
<td>2</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td></td>
<td>20.0</td>
<td>28.6</td>
<td>26.9</td>
</tr>
<tr>
<td>None of these opinions</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td>7.1</td>
<td>5.8</td>
</tr>
<tr>
<td>Don't know</td>
<td>1</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>10.0</td>
<td>4.8</td>
<td>5.8</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>42</td>
<td>52</td>
</tr>
</tbody>
</table>

Total 100 42 100 52 100
Table 26.
Reading of works council agreements.

<table>
<thead>
<tr>
<th>Question: Lesen Sie auch die ausgehängten Vereinbarungen?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Yes</td>
</tr>
<tr>
<td>Sometimes</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

Table 27.
Negotiation process for works council agreements.

<table>
<thead>
<tr>
<th>Question: Wie kommt eine Betriebsvereinbarung zustande?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Answer</td>
</tr>
<tr>
<td>---------</td>
</tr>
<tr>
<td>Works Council + Management</td>
</tr>
<tr>
<td>Union + Man. (18)</td>
</tr>
<tr>
<td>Other (incorrect) opinions</td>
</tr>
<tr>
<td>Don't know</td>
</tr>
<tr>
<td>Total</td>
</tr>
</tbody>
</table>

17. All respondents were aware that works council agreements are posted on notice boards.

18. This answer reflects the attitude that there is no difference between works council and union which is often found amongst the workforce.
Table 28.

Representation of employees' interests in society.

Question: Wer vertritt Ihrer Ansicht nach die Interessen der Arbeitnehmer in der Gesellschaft am besten? Sie können bis zu drei Gruppen herausnehmen. (19)

<table>
<thead>
<tr>
<th>Group</th>
<th>Acid Plant F</th>
<th>Acid Plant Adj.%</th>
<th>Works Sample F</th>
<th>Works Sample Adj.% Rel.</th>
<th>Total F</th>
<th>Total Adj.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPD</td>
<td>5</td>
<td>15.2</td>
<td>26</td>
<td>20.2</td>
<td>31</td>
<td>19.1</td>
</tr>
<tr>
<td></td>
<td>29.4</td>
<td></td>
<td>26</td>
<td>20.2</td>
<td>31</td>
<td>31.3</td>
</tr>
<tr>
<td>CDU/CSU</td>
<td>3</td>
<td>9.1</td>
<td>7</td>
<td>5.4</td>
<td>10</td>
<td>6.2</td>
</tr>
<tr>
<td></td>
<td>17.6</td>
<td></td>
<td>7</td>
<td>5.4</td>
<td>10</td>
<td>10.1</td>
</tr>
<tr>
<td>FDP</td>
<td>1</td>
<td>3.0</td>
<td>10</td>
<td>7.8</td>
<td>11</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td>5.9</td>
<td></td>
<td>10</td>
<td>7.8</td>
<td>11</td>
<td>11.1</td>
</tr>
<tr>
<td>NPD</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>DKP</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Employers</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0.8</td>
<td>1</td>
<td>0.6</td>
</tr>
<tr>
<td></td>
<td>0</td>
<td></td>
<td>1</td>
<td>0.8</td>
<td>1</td>
<td>1.1</td>
</tr>
<tr>
<td>State</td>
<td>2</td>
<td>6.0</td>
<td>7</td>
<td>5.4</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>11.8</td>
<td></td>
<td>7</td>
<td>5.4</td>
<td>9</td>
<td>11.1</td>
</tr>
<tr>
<td>Trade</td>
<td>6</td>
<td>18.2</td>
<td>31</td>
<td>24.0</td>
<td>37</td>
<td>22.8</td>
</tr>
<tr>
<td>Unions</td>
<td></td>
<td>35.3</td>
<td>31</td>
<td>24.0</td>
<td>37</td>
<td>37.4</td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td>9.1</td>
<td>6</td>
<td>4.7</td>
<td>9</td>
<td>5.6</td>
</tr>
<tr>
<td></td>
<td>M</td>
<td></td>
<td>6</td>
<td>4.7</td>
<td>9</td>
<td>M</td>
</tr>
<tr>
<td>None of</td>
<td>13</td>
<td>39.4</td>
<td>41</td>
<td>31.7</td>
<td>54</td>
<td>33.3</td>
</tr>
<tr>
<td>these</td>
<td>M</td>
<td></td>
<td>41</td>
<td>31.7</td>
<td>54</td>
<td>M</td>
</tr>
<tr>
<td>Total</td>
<td>33</td>
<td>100</td>
<td>129</td>
<td>100</td>
<td>162</td>
<td>100</td>
</tr>
</tbody>
</table>

19. A series of cards with these groups (see Glossary of abbreviations for definitions) was given to the respondents who could select up to 3 of them.

20. Here the categories "Don't know" and "None of these" have been taken as missing values.

21. Percentage of sample giving this response, n = 43.


Table 29.

Most important demands/tasks for trade unions (closed format).

---

**Question:** Können Sie mir aus diesen Kärtchen die vier Forderungen nennen, für die sich Ihrer Meinung nach die Gewerkschaften am stärksten einsetzen sollen?

<table>
<thead>
<tr>
<th>Demand</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Short working time</td>
<td>5 11.4</td>
<td>8 4.9</td>
<td>6.3</td>
</tr>
<tr>
<td>2 Capital accumulation</td>
<td>1 2.3</td>
<td>12 7.3</td>
<td>6.3</td>
</tr>
<tr>
<td>3 Higher wages</td>
<td>2 4.5</td>
<td>5 3.0</td>
<td>3.4</td>
</tr>
<tr>
<td>4 Increase Co-ordination</td>
<td>0 0</td>
<td>9 5.5</td>
<td>4.3</td>
</tr>
<tr>
<td>5 Defend democracy</td>
<td>4 9.1</td>
<td>7 4.3</td>
<td>5.3</td>
</tr>
<tr>
<td>6 More holidays</td>
<td>7 15.9</td>
<td>14 4.5</td>
<td>10.1</td>
</tr>
<tr>
<td>7 Protect price stability</td>
<td>4 9.1</td>
<td>17 10.4</td>
<td>10.1</td>
</tr>
<tr>
<td>8 Job Protection</td>
<td>6 13.6</td>
<td>24 14.6</td>
<td>14.4</td>
</tr>
<tr>
<td>9 Influence government</td>
<td>0 0</td>
<td>0 0</td>
<td>0</td>
</tr>
<tr>
<td>10 Protection from rationalisation</td>
<td>0 0</td>
<td>8 4.9</td>
<td>3.8</td>
</tr>
<tr>
<td>11 Better O.A.P.</td>
<td>3 6.8</td>
<td>8 4.9</td>
<td>5.3</td>
</tr>
<tr>
<td>12 Better training facilities</td>
<td>0 0</td>
<td>6 3.7</td>
<td>2.9</td>
</tr>
<tr>
<td>13 Lowering retirement age</td>
<td>7 15.9</td>
<td>30 18.3</td>
<td>17.8</td>
</tr>
<tr>
<td>14 None of these</td>
<td>5 11.4</td>
<td>16 9.8</td>
<td>10.1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>F</th>
<th>%</th>
<th>F</th>
<th>%</th>
<th>F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acid Plant</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works Sample</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>44</td>
<td>100</td>
<td>164</td>
<td>100</td>
<td>-</td>
<td>208</td>
</tr>
</tbody>
</table>

22. Figures (relative percentages) from survey in Schumann et al., op.cit., p.215f., for BASF. Figures in brackets only limited comparability due to a change in phraseology on the card.
### Table 30.

Knowledge of specific works council roles (Open format).

<table>
<thead>
<tr>
<th>Role</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>See law upheld</td>
<td>0</td>
<td>0</td>
<td>10</td>
</tr>
<tr>
<td>Representation</td>
<td>4</td>
<td>36.4</td>
<td>34</td>
</tr>
<tr>
<td>Protect minorities</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Co-det. rights (gen.)</td>
<td>1</td>
<td>9.1</td>
<td>4</td>
</tr>
<tr>
<td>Co-det. rights (social)</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Co-det. rights (personnel)</td>
<td>4</td>
<td>36.4</td>
<td>21</td>
</tr>
<tr>
<td>Co-det. rights (economic)</td>
<td>1</td>
<td>9.1</td>
<td>3</td>
</tr>
<tr>
<td>Safety</td>
<td>0</td>
<td>0</td>
<td>9</td>
</tr>
<tr>
<td>Works council agreements</td>
<td>0</td>
<td>0</td>
<td>12</td>
</tr>
<tr>
<td>Co-det. rights (dismissal)</td>
<td>0</td>
<td>0</td>
<td>7</td>
</tr>
<tr>
<td>Others</td>
<td>3</td>
<td>27.3</td>
<td>11</td>
</tr>
<tr>
<td><strong>Averages</strong></td>
<td>1.2</td>
<td>10.75</td>
<td>11</td>
</tr>
</tbody>
</table>

### Table 31.

Absolute knowledge of works council roles (number which could be named). \(^{(23)}\)

<table>
<thead>
<tr>
<th>Number</th>
<th>Works</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
</tr>
<tr>
<td>0</td>
<td>8</td>
<td>15.1</td>
</tr>
<tr>
<td>1</td>
<td>15</td>
<td>28.3</td>
</tr>
<tr>
<td>2</td>
<td>12</td>
<td>22.6</td>
</tr>
<tr>
<td>3</td>
<td>9</td>
<td>17.0</td>
</tr>
<tr>
<td>4</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>5</td>
<td>4</td>
<td>7.5</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>53</td>
<td>100</td>
</tr>
</tbody>
</table>

23. Question as above.
### Table 32.

**Turnout at works council elections in 1978.**

**Question:** Haben Sie sich an den Betriebsratswahlen in diesem Jahr beteiligt?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Acid F</th>
<th>%</th>
<th>Plant F</th>
<th>%</th>
<th>Works Sample F</th>
<th>%</th>
<th>Rel.%</th>
<th>F</th>
<th>%</th>
<th>Rel.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Voted</td>
<td>10</td>
<td>90.9</td>
<td>42</td>
<td>91.3</td>
<td>97.7</td>
<td>52</td>
<td>91.2</td>
<td>96.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Didn't vote</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.2</td>
<td>2.3</td>
<td>2</td>
<td>3.5</td>
<td>3.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not allowed to vote (24)</td>
<td>-</td>
<td>-</td>
<td>4</td>
<td>6.5</td>
<td>-</td>
<td>4</td>
<td>5.3</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>100</td>
<td>47</td>
<td>100</td>
<td>100</td>
<td>58</td>
<td>100</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 33.

**Fulfilment of work council task.**

**Question:** Erfüllt der Betriebsrat seine Aufgabe oder vernachlässigt er etwas?

<table>
<thead>
<tr>
<th>Answer</th>
<th>Acid F</th>
<th>%</th>
<th>Plant F</th>
<th>%</th>
<th>Works Sample F</th>
<th>%</th>
<th>Rel.%</th>
<th>F</th>
<th>%</th>
<th>Rel.%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>7</td>
<td>77.8</td>
<td>26</td>
<td>66.7</td>
<td>33</td>
<td>68.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Partly</td>
<td>2</td>
<td>22.2</td>
<td>5</td>
<td>12.8</td>
<td>7</td>
<td>14.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>15.8</td>
<td>6</td>
<td>12.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5.1</td>
<td>2</td>
<td>4.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>9</td>
<td>100</td>
<td>39</td>
<td>100</td>
<td>48</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

24. Senior managerial staff are not allowed to vote in works council elections. The Rel.% discounts these respondents.
Table 34.
Frequency of works assemblies.

<table>
<thead>
<tr>
<th>Frequency</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 - 1 Monthly</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>2 - 3 Monthly</td>
<td>4</td>
<td>36.4</td>
<td>36</td>
<td>73.5</td>
<td>40</td>
<td>66.7</td>
</tr>
<tr>
<td>4 - 6 Monthly</td>
<td>6</td>
<td>54.5</td>
<td>2</td>
<td>4.1</td>
<td>8</td>
<td>13.3</td>
</tr>
<tr>
<td>7 - 12 Monthly</td>
<td>1</td>
<td>9.1</td>
<td>6</td>
<td>12.2</td>
<td>7</td>
<td>11.7</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>8.2</td>
<td>4</td>
<td>6.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>100</td>
<td>49</td>
<td>100</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 35.
Attendance at works assemblies.

<table>
<thead>
<tr>
<th>Attendance</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes, always</td>
<td>1</td>
<td>9.1</td>
<td>17</td>
<td>34.7</td>
<td>18</td>
<td>30.0</td>
</tr>
<tr>
<td>Yes, sometimes</td>
<td>10</td>
<td>90.9</td>
<td>31</td>
<td>63.3</td>
<td>41</td>
<td>68.3</td>
</tr>
<tr>
<td>No, never</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>100</td>
<td>49</td>
<td>100</td>
<td>60</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 36.
An evaluation of full-time works councillors.

Question: Gibt es bei Ihnen im Betrieb ein oder mehrere Betriebsratsmitglieder, die von ihrer ursprünglichen Tätigkeit wegen ihres Amts freigestellt sind? Wenn ja: Meinen Sie dass so etwas gut ist, oder nicht?

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Good</td>
<td>8</td>
<td>88.9</td>
<td>30</td>
</tr>
<tr>
<td>Advantages and disadvantages</td>
<td>0</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>Bad</td>
<td>1</td>
<td>11.1</td>
<td>1</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>9</td>
<td>100</td>
<td>35</td>
</tr>
</tbody>
</table>

Table 37.
Representation of the workforce's interests by the works council.

Question: Haben Sie den Eindruck, dass der Betriebsrat die Interessen der Belegschaft gegenüber der Geschäftsleitung hart genug vertritt, oder ist das nicht der Fall?

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>Full enough</td>
<td>6</td>
<td>60.0</td>
<td>19</td>
</tr>
<tr>
<td>Varies</td>
<td>1</td>
<td>10.0</td>
<td>13</td>
</tr>
<tr>
<td>Not full enough</td>
<td>0</td>
<td>0</td>
<td>4</td>
</tr>
<tr>
<td>Don't know</td>
<td>3</td>
<td>30.0</td>
<td>5</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>41</td>
</tr>
</tbody>
</table>
Table 38.
Sufficiency of works council rights.

<table>
<thead>
<tr>
<th>Sufficiency</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sufficient</td>
<td>8</td>
<td>72.7</td>
<td>35</td>
<td>77.8</td>
<td>43</td>
<td>76.8</td>
</tr>
<tr>
<td>Partly insufficient</td>
<td>1</td>
<td>9.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Insufficient</td>
<td>1</td>
<td>9.1</td>
<td>6</td>
<td>13.3</td>
<td>7</td>
<td>12.5</td>
</tr>
<tr>
<td>More than sufficient</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.2</td>
<td>2</td>
<td>3.6</td>
</tr>
<tr>
<td>Sufficient if used</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.2</td>
<td>1</td>
<td>1.8</td>
</tr>
<tr>
<td>Don’t know</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.4</td>
<td>2</td>
<td>3.6</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>45</td>
<td>100</td>
<td>56</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 39.
Average number of work mates.

<table>
<thead>
<tr>
<th></th>
<th>Acid F</th>
<th>Plant</th>
<th>Works F</th>
<th>Sample</th>
<th>Total F</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>15.4</td>
<td>8</td>
<td>12.7</td>
</tr>
<tr>
<td>One</td>
<td>0</td>
<td>0</td>
<td>11</td>
<td>21.2</td>
<td>11</td>
<td>17.5</td>
</tr>
<tr>
<td>Two or more</td>
<td>11</td>
<td>100</td>
<td>32</td>
<td>61.5</td>
<td>43</td>
<td>68.3</td>
</tr>
<tr>
<td>Varies</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.9</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 40.
Knowledge of specific co-determination rights of the works council.

Question: Gibt es bei Ihnen im Betrieb bestimmte Massnahmen, die Geschäftsleitung nicht ohne die Zustimmung des Betriebsrats durchführen darf?

<table>
<thead>
<tr>
<th>Specific Right</th>
<th>Acid</th>
<th>Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>On employment</td>
<td>2</td>
<td>18.2</td>
<td>10</td>
<td>23.3</td>
<td>12</td>
</tr>
<tr>
<td>On transfer</td>
<td>2</td>
<td>18.2</td>
<td>6</td>
<td>14.0</td>
<td>8</td>
</tr>
<tr>
<td>On dismissal</td>
<td>2</td>
<td>18.2</td>
<td>16</td>
<td>37.2</td>
<td>18</td>
</tr>
<tr>
<td>Social co-determination</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7.0</td>
<td>3</td>
</tr>
<tr>
<td>On regrading</td>
<td>3</td>
<td>27.3</td>
<td>5</td>
<td>11.6</td>
<td>8</td>
</tr>
<tr>
<td>Others</td>
<td>4</td>
<td>36.4</td>
<td>9</td>
<td>20.9</td>
<td>13</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3</td>
<td>27.3</td>
<td>11</td>
<td>25.6</td>
<td>14</td>
</tr>
</tbody>
</table>

Total 11 43 54

Table 41.
Absolute knowledge of co-determination rights of the works council.(25)

<table>
<thead>
<tr>
<th>Number known</th>
<th>Works</th>
<th>Sample</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>28</td>
<td>52.8</td>
</tr>
<tr>
<td>1</td>
<td>13</td>
<td>24.5</td>
</tr>
<tr>
<td>2</td>
<td>6</td>
<td>11.3</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>3.8</td>
</tr>
<tr>
<td>5</td>
<td>2</td>
<td>3.8</td>
</tr>
</tbody>
</table>

Total 53 100

25. Same question as Table 40, alternate form of analysis.
Evaluation of the works by consideration of a variety of criteria.


Table 42.
Accident Prevention.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Very good</td>
<td>0</td>
<td>0</td>
<td>13</td>
<td>31.0</td>
<td>13</td>
<td>25.0</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>9</td>
<td>90.0</td>
<td>21</td>
<td>50.0</td>
<td>30</td>
<td>57.7</td>
</tr>
<tr>
<td>3 Okay</td>
<td>1</td>
<td>10.0</td>
<td>8</td>
<td>19.0</td>
<td>9</td>
<td>17.3</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>42</td>
<td>100</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 1.881, S² = 0.705 Lowest 2.5% limit = 3.947 (27)

26. A list was then read out and the results of this question are given in Tables 42 - 48.

27. A limit can be calculated for the value below which less than 2.5% of the workforce would evaluate the works according to these criteria. This requires the assumption that a disproportionate stratified random sample may be treated in the same way as a simple random sample, and that the data is a normal distribution. It requires first calculating the interval estimate of the mean (95% confidence) of the population (i.e. the workforce) and adding this to 1.96 (standard deviation for the population which must also be calculated. N. Lin, op.cit., p.285ff.).
Table 43.
Welfare benefits.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid</th>
<th>Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>1 Very good</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>16.7</td>
<td>7</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>9</td>
<td>90.0</td>
<td>27</td>
<td>64.2</td>
<td>36</td>
</tr>
<tr>
<td>3 Okay</td>
<td>1</td>
<td>10.0</td>
<td>6</td>
<td>14.3</td>
<td>7</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>42</td>
<td>100</td>
<td>52</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 1.927, $S^2 = 0.648$, Lowest 2.5% limit = 3.916

Table 44.
Security of employment

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid</th>
<th>Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>1 Very good</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.9</td>
<td>1</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>2</td>
<td>20.0</td>
<td>13</td>
<td>37.1</td>
<td>15</td>
</tr>
<tr>
<td>3 Okay</td>
<td>5</td>
<td>50.0</td>
<td>9</td>
<td>25.7</td>
<td>14</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>1</td>
<td>10.0</td>
<td>4</td>
<td>11.4</td>
<td>5</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.9</td>
<td>1</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>20.0</td>
<td>7</td>
<td>20.9</td>
<td>9</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>35</td>
<td>100</td>
<td>45</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 2.143, $S^2 = 1.353$, Lowest 2.5% limit = 5.128
Lowest 3.0% limit = 5.0
Table 45.
The behaviour of superiors.

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid</th>
<th>Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>1 Very good</td>
<td>2</td>
<td>20.0</td>
<td>9</td>
<td>21.4</td>
<td>11</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>7</td>
<td>70.0</td>
<td>23</td>
<td>54.8</td>
<td>30</td>
</tr>
<tr>
<td>3 Okay</td>
<td>1</td>
<td>10.0</td>
<td>8</td>
<td>19.0</td>
<td>9</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.4</td>
<td>1</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.4</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>42</td>
<td>100</td>
<td>52</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 1.976, $S^2 = 0.78$, Lowest 2.5% limit = 4.15

Table 46.
Payment (II)

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid</th>
<th>Plants</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>1 Very good</td>
<td>1</td>
<td>10.0</td>
<td>2</td>
<td>4.8</td>
<td>3</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>6</td>
<td>60.0</td>
<td>30</td>
<td>71.4</td>
<td>36</td>
</tr>
<tr>
<td>3 Okay</td>
<td>3</td>
<td>30.0</td>
<td>7</td>
<td>16.7</td>
<td>10</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7.1</td>
<td>3</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>42</td>
<td>100</td>
<td>52</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 2.262, $S^2 = 0.665$, Lowest 2.5% limit = 4.265
Table 47.

Chances of promotion

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>1 Very good</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>2</td>
<td>20.0</td>
<td>11</td>
</tr>
<tr>
<td>3 Okay</td>
<td>5</td>
<td>50.0</td>
<td>15</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>2</td>
<td>20.0</td>
<td>11</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>1</td>
<td>10.0</td>
<td>0</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>39</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 2.872, S^2 = 0.951, Lowest 2.5% limit = 5.33
Lowest 4.5% limit = 5.0

Table 48.

Workmates

<table>
<thead>
<tr>
<th>Rating</th>
<th>Acid Plant</th>
<th>Works Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>1 Very good</td>
<td>2</td>
<td>20.0</td>
<td>7</td>
</tr>
<tr>
<td>2 Fairly good</td>
<td>7</td>
<td>70.0</td>
<td>29</td>
</tr>
<tr>
<td>3 Okay</td>
<td>1</td>
<td>10.0</td>
<td>4</td>
</tr>
<tr>
<td>4 Fairly bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>5 Very bad</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>10</td>
<td>100</td>
<td>40</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 1.925, S^2 = 0.526, Lowest 2.5% limit = 3.75
Table 49
Conception of co-determination.

Question: Was verstehen Sie unter Mitbestimmung?

<table>
<thead>
<tr>
<th>Conception</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workplace</td>
<td>2</td>
<td>20.0</td>
<td>8</td>
<td>18.6</td>
<td>10</td>
<td>18.9</td>
</tr>
<tr>
<td>Works level</td>
<td>5</td>
<td>50.0</td>
<td>13</td>
<td>30.2</td>
<td>18</td>
<td>34.0</td>
</tr>
<tr>
<td>Company level</td>
<td>1</td>
<td>10.0</td>
<td>12</td>
<td>27.9</td>
<td>13</td>
<td>24.5</td>
</tr>
<tr>
<td>Economy level</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.3</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Union</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.3</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Don't know</td>
<td>2</td>
<td>20.0</td>
<td>8</td>
<td>18.6</td>
<td>10</td>
<td>18.9</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>10</td>
<td>100</td>
<td>43</td>
<td>100</td>
<td>53</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 50
Important welfare benefits provided by company.

Question: Welche betriebliche Sozialleistungen halten Sie für wichtig?

<table>
<thead>
<tr>
<th>Type of Benefit</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pension</td>
<td>6</td>
<td>54.5</td>
<td>23</td>
<td>57.5</td>
<td>29</td>
<td>56.9</td>
</tr>
<tr>
<td>Medical care</td>
<td>5</td>
<td>45.3</td>
<td>13</td>
<td>32.5</td>
<td>18</td>
<td>35.2</td>
</tr>
<tr>
<td>Training</td>
<td>1</td>
<td>9.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
</tr>
<tr>
<td>Financial help</td>
<td>4</td>
<td>36.4</td>
<td>2</td>
<td>5.0</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>Works bonuses</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>15.0</td>
<td>6</td>
<td>11.8</td>
</tr>
<tr>
<td>Others: canteen, etc.</td>
<td>4</td>
<td>36.4</td>
<td>7</td>
<td>42.5</td>
<td>21</td>
<td>41.2</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>7.5</td>
<td>3</td>
<td>5.9</td>
</tr>
<tr>
<td><strong>Sample size</strong></td>
<td>11</td>
<td>-</td>
<td>40</td>
<td>-</td>
<td>51</td>
<td>-</td>
</tr>
</tbody>
</table>
Table 51.

Desired changes in company benefits.

<table>
<thead>
<tr>
<th>Desired changes</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increase</td>
<td>4</td>
<td>36.4</td>
<td>17</td>
<td>47.2</td>
<td>21</td>
<td>44.7</td>
</tr>
<tr>
<td>Convert to collective agreements</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>5.6</td>
<td>2</td>
<td>4.3</td>
</tr>
<tr>
<td>None</td>
<td>3</td>
<td>27.3</td>
<td>11</td>
<td>30.6</td>
<td>14</td>
<td>29.3</td>
</tr>
<tr>
<td>Don't know</td>
<td>4</td>
<td>36.4</td>
<td>6</td>
<td>16.7</td>
<td>10</td>
<td>21.3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>36</td>
<td>100</td>
<td>47</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 52.

The qualities of good company management.

<table>
<thead>
<tr>
<th>Quality</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business skill (B)</td>
<td>1</td>
<td>9.1</td>
<td>9</td>
<td>22.0</td>
<td>10</td>
<td>19.2</td>
</tr>
<tr>
<td>Social management style (S)</td>
<td>2</td>
<td>18.2</td>
<td>16</td>
<td>39.0</td>
<td>13</td>
<td>34.6</td>
</tr>
<tr>
<td>Technical skill (T)</td>
<td>1</td>
<td>9.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>B + S</td>
<td>2</td>
<td>18.2</td>
<td>3</td>
<td>7.3</td>
<td>5</td>
<td>9.6</td>
</tr>
<tr>
<td>B + T</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.4</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>S + Others</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.4</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Others</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.4</td>
<td>1</td>
<td>1.9</td>
</tr>
<tr>
<td>Don't know</td>
<td>5</td>
<td>45.5</td>
<td>10</td>
<td>24.4</td>
<td>15</td>
<td>28.8</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>41</td>
<td>100</td>
<td>52</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 53.
Age (Question: Alter?)

<table>
<thead>
<tr>
<th>Age</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample F</th>
<th>Total F</th>
</tr>
</thead>
<tbody>
<tr>
<td>-18</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>19-20</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
</tr>
<tr>
<td>21-25</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>26-30</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
</tr>
<tr>
<td>31-35</td>
<td>1</td>
<td>9.1</td>
<td>5</td>
<td>9.8</td>
<td>6</td>
</tr>
<tr>
<td>36-40</td>
<td>1</td>
<td>9.1</td>
<td>9</td>
<td>17.6</td>
<td>10</td>
</tr>
<tr>
<td>41-45</td>
<td>2</td>
<td>18.2</td>
<td>8</td>
<td>15.7</td>
<td>10</td>
</tr>
<tr>
<td>46-50</td>
<td>5</td>
<td>45.5</td>
<td>9</td>
<td>17.6</td>
<td>14</td>
</tr>
<tr>
<td>51-55</td>
<td>1</td>
<td>9.1</td>
<td>7</td>
<td>13.6</td>
<td>8</td>
</tr>
<tr>
<td>56-60</td>
<td>1</td>
<td>9.1</td>
<td>8</td>
<td>15.7</td>
<td>9</td>
</tr>
<tr>
<td>61+</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

Works Sample statistics:
mean = 46.2; median = 46.8

Table 54.
Marital Status (Question: Familienstand?)

<table>
<thead>
<tr>
<th>Marital status</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample F</th>
<th>Total F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>1</td>
<td>9.1</td>
<td>3</td>
<td>5.9</td>
<td>4</td>
</tr>
<tr>
<td>Married</td>
<td>9</td>
<td>81.8</td>
<td>46</td>
<td>90.2</td>
<td>55</td>
</tr>
<tr>
<td>Widowed</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
</tr>
<tr>
<td>Divorced</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.0</td>
<td>2</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>
### Table 55.
Number of children (Question: Haben Sie Kinder?)

<table>
<thead>
<tr>
<th>Number</th>
<th>Acid</th>
<th>Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>%</td>
<td>F</td>
<td>%</td>
<td>F</td>
</tr>
<tr>
<td>0</td>
<td>1</td>
<td>9.1</td>
<td>8</td>
<td>15.7</td>
<td>9</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>18.2</td>
<td>11</td>
<td>21.6</td>
<td>13</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>27.3</td>
<td>16</td>
<td>31.4</td>
<td>19</td>
</tr>
<tr>
<td>3 or more</td>
<td>5</td>
<td>45.5</td>
<td>16</td>
<td>31.4</td>
<td>21</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

### Table 56.
Schooling and qualifications.

<table>
<thead>
<tr>
<th>School/Qualifications</th>
<th>Acid</th>
<th>Plant</th>
<th>Works</th>
<th>Sample</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volkschule (28)</td>
<td>10</td>
<td>90.0</td>
<td>41</td>
<td>80.4</td>
<td>51</td>
</tr>
<tr>
<td>Mittelschule (29)</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
</tr>
<tr>
<td>Mittlere Reife (30)</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
</tr>
<tr>
<td>Oberschule (MR) (31)</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.0</td>
<td>2</td>
</tr>
<tr>
<td>Oberschule (Abitur) (32)</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
</tr>
</tbody>
</table>

28. School providing primary and secondary education generally to the age of 14 or 15.

29. Middle school (e.g. technical college) to the age of about 16.

30. Exam approximately equivalent to 'O' levels.

31. High school of Grammar School type - 'O' levels.

32. High school but 'A' level equivalent qualification obtained.
Table 57.

Profession of father.

<table>
<thead>
<tr>
<th>Profession</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skilled worker</td>
<td>2</td>
<td>18.2</td>
<td>10</td>
<td>20.4</td>
<td>12</td>
<td>20.0</td>
</tr>
<tr>
<td>Unskilled worker</td>
<td>3</td>
<td>27.3</td>
<td>7</td>
<td>14.2</td>
<td>10</td>
<td>16.7</td>
</tr>
<tr>
<td>Labourer</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Senior managerial staff</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Salaried staff</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.0</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Civil servant</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.1</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Senior civil servant</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.7</td>
</tr>
<tr>
<td>Self employed</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.1</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Agriculture</td>
<td>5</td>
<td>45.5</td>
<td>18</td>
<td>36.7</td>
<td>23</td>
<td>38.3</td>
</tr>
<tr>
<td>Professional soldier</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>4.1</td>
<td>2</td>
<td>3.3</td>
</tr>
<tr>
<td>Don't know</td>
<td>0</td>
<td>0</td>
<td>4</td>
<td>8.2</td>
<td>4</td>
<td>6.6</td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>M</td>
<td>2</td>
<td>M</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 58.

Training.

<table>
<thead>
<tr>
<th>Level of Training</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>No skill</td>
<td>5</td>
<td>45.5</td>
<td>14</td>
<td>27.5</td>
<td>19</td>
<td>30.6</td>
</tr>
<tr>
<td>Incomplete apprenticeship</td>
<td>1</td>
<td>9.1</td>
<td>3</td>
<td>5.9</td>
<td>4</td>
<td>6.5</td>
</tr>
<tr>
<td>Skilled chemical worker</td>
<td>0</td>
<td>0</td>
<td>6</td>
<td>11.8</td>
<td>6</td>
<td>9.7</td>
</tr>
<tr>
<td>Other skilled worker</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Apprenticeship completed</td>
<td>4</td>
<td>36.4</td>
<td>23</td>
<td>45.1</td>
<td>27</td>
<td>43.8</td>
</tr>
<tr>
<td>Engineering college</td>
<td>1</td>
<td>9.1</td>
<td>1</td>
<td>2.0</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>University</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.9</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 59.
Form of payment.

Question: Nach welcher Lohnform werden Sie bezahlt?

<table>
<thead>
<tr>
<th>Form of Payment</th>
<th>Acid F</th>
<th>Acid %</th>
<th>Plant F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Works %</th>
<th>Sample F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wage</td>
<td>9</td>
<td>81.8</td>
<td>35</td>
<td>67.3</td>
<td>44</td>
<td>69.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salary</td>
<td>2</td>
<td>18.2</td>
<td>16</td>
<td>30.7</td>
<td>18</td>
<td>28.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other forms</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.9</td>
<td>1</td>
<td>1.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 60.
Average net monthly income.

Question: Wie hoch ist Ihr durchschnittlicher monatlicher Netto-Verdienst?

<table>
<thead>
<tr>
<th>Average income (DM) (33)</th>
<th>Acid F</th>
<th>Acid %</th>
<th>Plant F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Works %</th>
<th>Sample F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Under 1000</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.8</td>
<td>2</td>
<td>3.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1000-1199</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1200-1399</td>
<td>1</td>
<td>9.1</td>
<td>6</td>
<td>11.5</td>
<td>7</td>
<td>11.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1400-1599</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.8</td>
<td>3</td>
<td>4.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1600-1799</td>
<td>2</td>
<td>18.2</td>
<td>12</td>
<td>23.1</td>
<td>14</td>
<td>22.6</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1800-1999</td>
<td>5</td>
<td>45.2</td>
<td>13</td>
<td>25.0</td>
<td>18</td>
<td>29.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2000-2199</td>
<td>2</td>
<td>18.2</td>
<td>3</td>
<td>5.8</td>
<td>5</td>
<td>8.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2200-2399</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.8</td>
<td>2</td>
<td>3.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2400+</td>
<td>1</td>
<td>9.1</td>
<td>10</td>
<td>19.2</td>
<td>11</td>
<td>17.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>No answer</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>M</td>
<td>1</td>
<td>M</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Median Income of Works Sample 1838 DM net per month.

33. To convert to sterling, at the time of the study £1 = 3.75 DM.
### Table 61.

**Time of employment in works.**

**Question:** Seit wann sind Sie in diesem Werk beschäftigt?

<table>
<thead>
<tr>
<th>Time</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 years</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.8</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>3-5 years</td>
<td>1</td>
<td>9.1</td>
<td>3</td>
<td>5.8</td>
<td>4</td>
<td>6.3</td>
</tr>
<tr>
<td>6-10 years</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>17.3</td>
<td>9</td>
<td>14.3</td>
</tr>
<tr>
<td>11-15 years</td>
<td>4</td>
<td>36.4</td>
<td>16</td>
<td>30.8</td>
<td>20</td>
<td>31.7</td>
</tr>
<tr>
<td>16+ years</td>
<td>6</td>
<td>54.5</td>
<td>22</td>
<td>42.3</td>
<td>28</td>
<td>44.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

Median time of employment for works sample = 14.75 years.

### Table 62.

**Types of shift work.**

**Question:** Arbeiten Sie zur Zeit in Wechselschicht?

<table>
<thead>
<tr>
<th>Type</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuous (3 on, 1 off)</td>
<td>9</td>
<td>81.8</td>
<td>24</td>
<td>46.2</td>
<td>33</td>
<td>52.4</td>
</tr>
<tr>
<td>2 shift (early, late)</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>3.8</td>
<td>2</td>
<td>3.2</td>
</tr>
<tr>
<td>Day shift</td>
<td>2</td>
<td>18.2</td>
<td>26</td>
<td>49.1</td>
<td>28</td>
<td>44.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 63.
Trade union membership.

Question: Sind Sie gewerkschaftlich organisiert?

<table>
<thead>
<tr>
<th>Trade Union</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Workers' Union</td>
<td>10</td>
<td>90.9</td>
<td>47</td>
<td>90.4</td>
<td>57</td>
<td>90.5</td>
</tr>
<tr>
<td>VAA</td>
<td>0</td>
<td>0</td>
<td>3</td>
<td>5.8</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>DAG</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Nil</td>
<td>1</td>
<td>9.1</td>
<td>2</td>
<td>3.8</td>
<td>3</td>
<td>4.8</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 64.
Trade union officers.

<table>
<thead>
<tr>
<th>Office</th>
<th>Acid F</th>
<th>Plant %</th>
<th>Works F</th>
<th>Sample %</th>
<th>Total F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lay Officer</td>
<td>2</td>
<td>18.2</td>
<td>9</td>
<td>17.6</td>
<td>11</td>
<td>17.7</td>
</tr>
<tr>
<td>Works councillor</td>
<td>0</td>
<td>0</td>
<td>5</td>
<td>9.8</td>
<td>5</td>
<td>8.1</td>
</tr>
<tr>
<td>Youth representative</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>VAA representative</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2.0</td>
<td>1</td>
<td>1.6</td>
</tr>
<tr>
<td>No office</td>
<td>9</td>
<td>81.8</td>
<td>35</td>
<td>68.6</td>
<td>44</td>
<td>71.0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>51</td>
<td>100</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>
Table 65.  
Interest displayed in interview.

<table>
<thead>
<tr>
<th>Degree of Interest</th>
<th>Acid Plant F</th>
<th></th>
<th>Works F</th>
<th></th>
<th>Sample F</th>
<th></th>
<th>Total F</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Very interested</td>
<td>0</td>
<td></td>
<td>7</td>
<td></td>
<td>13.4</td>
<td></td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>Interested</td>
<td>7</td>
<td>63.6</td>
<td>24</td>
<td>46.1</td>
<td>31</td>
<td>49.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neither/nor</td>
<td>2</td>
<td>18.2</td>
<td>17</td>
<td>32.7</td>
<td>19</td>
<td>30.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Disinterested</td>
<td>1</td>
<td>9.1</td>
<td>4</td>
<td>7.8</td>
<td>5</td>
<td>7.9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Very disinterested</td>
<td>1</td>
<td>9.1</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>1.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>52</td>
<td>100</td>
<td>63</td>
<td>100</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
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