

Sheffield Hallam University

A Study of Industrial Relations on a Large Industrial Construction Site.

LUMLEY, Roger.

Available from the Sheffield Hallam University Research Archive (SHURA) at:

<http://shura.shu.ac.uk/19985/>

A Sheffield Hallam University thesis

This thesis is protected by copyright which belongs to the author.

The content must not be changed in any way or sold commercially in any format or medium without the formal permission of the author.

When referring to this work, full bibliographic details including the author, title, awarding institution and date of the thesis must be given.

Please visit <http://shura.shu.ac.uk/19985/> and <http://shura.shu.ac.uk/information.html> for further details about copyright and re-use permissions.

16182

Sheffield City Polytechnic Library

REFERENCE ONLY

16182

7816226012



the book is to be returned on or before
the last date stamped below.

Return to Learning Centre of issue
Fines are charged at 50p per hour

23 APR 2007
8:55 pm
20 JUN 2007 5 pm

ProQuest Number: 10697292

All rights reserved

INFORMATION TO ALL USERS

The quality of this reproduction is dependent upon the quality of the copy submitted.

In the unlikely event that the author did not send a complete manuscript and there are missing pages, these will be noted. Also, if material had to be removed, a note will indicate the deletion.



ProQuest 10697292

Published by ProQuest LLC (2017). Copyright of the Dissertation is held by the Author.

All rights reserved.

This work is protected against unauthorized copying under Title 17, United States Code
Microform Edition © ProQuest LLC.

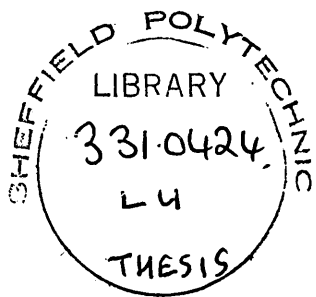
ProQuest LLC.
789 East Eisenhower Parkway
P.O. Box 1346
Ann Arbor, MI 48106 – 1346

A STUDY OF INDUSTRIAL RELATIONS ON A
LARGE INDUSTRIAL CONSTRUCTION SITE

Roger Lumley

Thesis submitted to the Council for National Academic
Awards in fulfilment of the requirements for the degree
of Doctor of Philosophy

Sheffield City Polytechnic
January 1978



78-16226 01

ABSTRACT

This thesis "A Study of Industrial Relations on a Large Industrial Construction Site" uses a case study on a single site to make contributions in three areas.

The first contribution is to defining the scope of workplace industrial relations. Application of a modified rules approach to industrial relations to the fieldwork setting leads to interpretations and clarifications giving the subject a distinct focus while avoiding excessive overlap with other social science fields of study. Four points may be noted. The content of substantive and non-creative procedural rules regulating jobs is of interest only to the extent that it illuminates the goals, values and powers of the actors. The processes of rule making and interpretation should be studied only where there is actual, attempted or desired union involvement. The attitudes of actors related to job regulation should be explained primarily in terms of the influences of the workplace environment. Only behaviour which is consciously directed towards rule making should be explained.

The second contribution is to an understanding of industrial relations on a large industrial construction site and to wider workplace industrial relations. Higher levels of industrial conflict are associated with an insecure employment situation, distrust among the parties, inexperience on the part of managers and supervisors, a rigid approach to industrial relations by management and external union pressure. Higher levels of union involvement in rule making are found in firms in which a wish by

manual employees for such involvement is combined with a stimulus for it and an ability to achieve it through organized conflict. Self-selection and role adaptation explain the attitudes of individuals mobile between roles.

The third contribution is in the area of client-researcher relationships. Too great an independence from the client leads to lack of commitment to research findings on his part.

CONTENTS

PREFACE	(i)
INTRODUCTION	1
1. A STUDY OF INDUSTRIAL RELATIONS AT WORKPLACE LEVEL	3
INTRODUCTION	3
THE UTILITY OF CASE STUDY INVESTIGATIONS IN INDUSTRIAL RELATIONS	3
A MODIFIED RULES APPROACH TO INDUSTRIAL RELATIONS	6
A GENERAL MODEL OF WORKPLACE INDUSTRIAL RELATIONS	14
2. THE SETTING FOR THE CASE STUDY: A LARGE INDUSTRIAL CONSTRUCTION SITE	19
INTRODUCTION	19
REASONS FOR THE CHOICE OF A LARGE INDUSTRIAL SITE AS A FIELDWORK SETTING	19
GENERAL CHARACTERISTICS OF LARGE INDUSTRIAL CONSTRUCTION SITES	20
PRINCIPAL CHARACTERISTICS OF THE MERSEYSIDE LARGE INDUSTRIAL CONSTRUCTION SITE	26
3. THE FOCUS OF THE CASE STUDY	35
INTRODUCTION	35
AREAS TO BE INVESTIGATED	35
CONFLICT	39
Review of the literature	39
Presentation of hypotheses	49
UNION INVOLVEMENT IN RULE MAKING	54
Review of the literature	54
Presentation of hypotheses	57
4. METHODOLOGY	61
INTRODUCTION	61
OVERALL CONDUCT OF THE STUDY	61
DATA COLLECTION	65
Interviews	65
Records	69
DATA PREPARATION AND ANALYSIS	74

5. DESCRIPTIVE FINDINGS: BIOGRAPHICAL CHARACTERISTICS OF CONTRACTORS' EMPLOYEES ON THE MERSEYSIDE LARGE SITE	78
INTRODUCTION	78
EMPLOYMENT EXPERIENCE	78
PROMOTION EXPERIENCE	95
TRADE UNION ACTIVITY EXPERIENCE	96
AGE, GEOGRAPHICAL ORIGINS AND SKILL LEVEL	102
6. DESCRIPTIVE FINDINGS: ATTITUDES OF CONTRACTORS' EMPLOYEES ON THE MERSEYSIDE LARGE SITE	104
INTRODUCTION	104
ATTITUDES TO WORK	104
Liked and disliked features of jobs	104
Meeting socially outside work	111
Working away from home	112
ATTITUDES TO CURRENT EMPLOYER	114
General satisfaction	114
Fairness to manual employees	115
ATTITUDES TO THE SUPERVISORY ROLE	120
Promotion ambitions	120
Supervisors' relations with manual employees	124
Supervisors' satisfaction with management's handling of the manual employees	126
Managers' evaluations of supervisors	128
ATTITUDES TO ACTIVITY IN THE UNION	130
Taking union office	130
Role of shop stewards	136
Evaluation of shop stewards	139
ATTITUDES TO UNION INVOLVEMENT IN ASPECTS OF RULE MAKING	141
Recruitment and selection	141
Redundancy	148
Satisfaction with existing amount of union involvement	151
Index of attitudes to union involvement	152
ATTITUDES TO CONFLICT	153
Fairness of the existing general industrial relations system	153
Unconstitutional industrial action	155
ATTITUDES TO CLIENT INFLUENCE	158
7. DESCRIPTIVE FINDINGS: CHARACTERISTICS OF FIRMS ON THE MERSEYSIDE LARGE SITE	161
INTRODUCTION	161
STRUCTURAL CHARACTERISTICS	161
AMOUNT AND FORM OF CONFLICT	166
Strikes	166
Voluntary absenteeism	170
Voluntary labour turnover	172
Productivity and accidents	174
Links between the measures of conflict	176

AMOUNT OF UNION INVOLVEMENT	176
Recruitment and selection	176
Redundancy	178
Organisation of work	180
Measure of amount of union involvement	181
8. FACTORS AFFECTING CONFLICT AND UNION INVOLVEMENT IN RULE MAKING ON THE MERSEYSIDE LARGE SITE	182
INTRODUCTION	182
TESTING OF HYPOTHESES	183
Conflict	183
Union involvement in rule making	187
PRESENTATION OF TYPAL ANALYSES	189
Individuals: Identification of types within roles	189
Firms: Identification of types within trade groups	195
DISCUSSION OF FINDINGS ON CONFLICT AND UNION INVOLVEMENT IN RULE MAKING	201
Introduction	201
Influences on attitudes related to conflict and to union involvement	202
Influences on form and amount of conflict	209
Influences on amount of union involvement	216
9. CONCLUSIONS: THE CONTRIBUTIONS OF THE STUDY	219
INTRODUCTION	219
CONTRIBUTION TO AN UNDERSTANDING OF A MODIFIED RULES APPROACH TO WORKPLACE INDUSTRIAL RELATIONS	219
CONTRIBUTION TO AN UNDERSTANDING OF INDUSTRIAL RELATIONS ON A LARGE INDUSTRIAL CONSTRUCTION SITE, AND WIDER APPLICATIONS	227
Findings from the case study on the Merseyside large site	227
Generalisation of findings	236
Areas for further research	238
CONTRIBUTION TO SOLVING CLIENT PROBLEMS	241
CONCLUSIONS	248
APPENDIX 1: INTERVIEW SCHEDULES	251
APPENDIX 2: CODING FRAME	284
APPENDIX 3: EDITING THE CODED INTERVIEW DATA	296
APPENDIX 4: CONSTRUCTION OF INDICES	298
APPENDIX 5: MEASURE OF THE EXISTING AMOUNT OF UNION INVOLVEMENT IN EACH FIRM	301

APPENDIX 6: NONPARAMETRIC STATISTICAL TESTS USED	302
APPENDIX 7: TYPAL ANALYSIS TECHNIQUE	304
REFERENCES	306

PREFACE

This thesis has its origins in a research contract between the Stanlow Refinery of Shell UK Ltd and Sheffield Polytechnic. I was recruited to carry out the project under the general supervision of Dr John Gill. As I also wished to use the fieldwork opportunity presented to make an academic contribution to knowledge, there was from the outset a need to serve two masters - the academic community and the client. This is becoming an increasingly common situation.

The client company had just embarked on a major expansion programme on its petro-chemicals complex involving a capital expenditure of £110 million over three years. This was expected to involve having on site contractors with a peak total construction labour force of over three thousand men. It was on this construction activity that the project was to focus.

The general experience from this site in the past and from other large industrial construction sites in the UK was of a high incidence of industrial unrest leading to delays in completion. The client had implemented - and indeed anticipated - most of the recommendations in the 1970 NEDO Report "Large Industrial Construction Sites". Nevertheless they were aware that there were still considerable differences between the behaviour of contractors' employees and that of their own established production and maintenance labour force. The client wanted some systematic research into the industrial relations system of contractors on this large industrial site as an aid to formulating

policies and procedures to "improve" contractors' industrial relations. As part of this they wanted to know, in the words of one of their senior construction managers, "What makes construction employees tick?".

At the same time I wished to design and then collect data for a parallel academic study. The goals that evolved here were two-fold. In the setting of a large site the study aimed to investigate the inter-relationships between certain attitudes and biographical characteristics of the actors, the workplace environment, behaviours related to conflict and outcomes in the form of union involvement in aspects of rule making. Broader than this the case study sought to examine the application of a modified rules approach to workplace industrial relations.

The difficulties of simultaneously trying to serve two masters soon became apparent. Too close co-operation with the client led to the risk of a particular bias in the research design and suspicion from unions and contractors which would act against the accurate collection of sensitive data. Too great an independence from the client led to the risk of an easy rejection of the research findings due to a lack of involvement in and commitment to the study.

On the evidence of this thesis there is no easy middle course. The independence established in this investigation was at the cost of any real change in client attitudes as a result of the study, while client pressure for early substantial fieldwork and actionable stage papers led to some weaknesses in the research design. However, the confidence, knowledge and credibility with practitioners built through this study could permit, in some future investigation, a greater degree of constructive client involvement. This could have benefits in both the academic and practical spheres.

I would like to express my gratitude to John Gill for his support and encouragement over the six year duration of this work. Thanks are also due to many others who have given help in various ways. In particular I wish to acknowledge the assistance of Dan Gowler who acted as my external supervisor, Phil Rowe of Shell, John Graham who was the site convenor, my colleagues Ted Evans and Ray Loveridge of Aston University, and Jackie Hanson who typed the thesis so proficiently.

Roger Lumley
January 1978

INTRODUCTION

This thesis "A Study of Industrial Relations on a Large Industrial Construction Site" has three principal aims. One is to make a theoretical contribution to an understanding of a modified rules approach to workplace industrial relations. The second is to make a specific substantive contribution to an understanding of industrial relations in the fieldwork setting of a large industrial construction site, and to examine wider applications of these findings. The third - remembering the origins of the study in a client funded project intended to solve practical problems - is to briefly examine the practicability of simultaneously satisfying the needs of the client company and the academic community. These purposes are pursued through the medium of a case study on a single large industrial construction site, and the opportunities and limitations of this approach are discussed.

The layout of the thesis is as follows. In Chapter 1 the utility of case study investigations in industrial relations is discussed and a general model of workplace industrial relations based on a modified rules approach to the subject is derived. The reasons for the choice of a large industrial construction site as a fieldwork setting, the general characteristics of such sites and the principal characteristics of the site studied - the Merseyside large site - are presented in Chapter 2. In Chapter 3 the general model is applied to the fieldwork setting and, following a review of the relevant literature, hypotheses are presented concerning two interrelated aspects of job regulation of particular importance on large sites. These are industrial conflict,

and union involvement in the making of rules concerning labour recruitment/selection, utilisation and termination. The methodology of the study, including its overall conduct and the methods of data collection, preparation and analysis are discussed in Chapter 4.

The findings from the case study on the Merseyside large site are then presented. Chapter 5 presents descriptive findings on the employment experience, promotion experience and trade union activity experience of contractors' operatives, shop stewards, supervisors and managers. Chapter 6 presents their attitudes to work, to their current employer, to the supervisory role, to activity in the union, to union involvement in aspects of rule making, to conflict and to client influence. In Chapter 7 the structural characteristics of the firms on the site are described, and the amount and form of conflict and of union involvement in aspects of rule making existing in them is examined. The results of the hypothesis testing are presented in Chapter 8 along with the typal analyses of individuals and firms. These findings on factors affecting conflict and the amount of union involvement in rule making are then discussed.

The final chapter of the thesis-Chapter 9-reviews, discusses and draws conclusions on the contributions of the study in the three areas outlined at the start of this Introduction. In so doing the utility of a single case study approach is examined and areas for further research are identified.

A STUDY OF INDUSTRIAL RELATIONS AT WORKPLACE LEVEL

INTRODUCTION

This chapter begins with an argument for the need in industrial relations to link empirical enquiry with theory building and indicates the utility of intensive case study investigations in this purpose. It continues with a discussion of approaches to the study of industrial relations and argues the strength of a modified rules approach in giving the subject both focus and breadth. A general model of workplace industrial relations based on this approach is then derived.

THE UTILITY OF CASE STUDY INVESTIGATIONS IN INDUSTRIAL RELATIONS

In industrial relations research there has probably been an over-concentration on fact finding and description. The achievements in the area of building theory have, it has been argued, been fairly meagre (e.g. Bain and Clegg, 1974, pp.97-103; Hartmann, 1973, p.1). Even where general models of industrial relations have been put forward, for example by Dunlop (1970) and Reeves (1967), these do not seem to have given rise directly to research hypotheses which have been tested (Parker and Scott, 1971, p.216).

If research is to be additive, and if we are to be able to understand, explain and predict phenomena, then there is a need to link empirical enquiry and theory building. As Bain and Clegg stress, "for the most

part, research should be undertaken not simply because it will increase the stock of knowledge about a given phenomenon but because it is relevant to the development and testing of theory" (1974, p.108; see also Singh, 1976, p.69).

Description is the first step but except in areas where very little is known is rarely sufficient. In such areas exploratory studies can be of interest in themselves and are a necessary preliminary for meaningful hypothesis testing (De Groot, 1969, pp.298-309). Thus in their exploratory study of the link between trade unions and their workplace organisations, Boraston et al (1975) did not start with a clear set of hypotheses to be tested, but waited for ideas to develop out of their case studies. The wider goal must be, however, like Chandler's in her study of contracting out construction work, to attempt "to move away from the traditional 'how and what' aspects of analysis - identification, description, and classification of problems, attributes, and variables - to the 'when and why' aspects, which involve prediction and the testing of theories, relationships, function and models" (1964, p.5). The difficulty of this task should not be underestimated. Attempts to construct industrial relations models which meet such criteria have, on their authors' own admissions, fallen short of the ideal (e.g. Blain and Gennard, 1970, p.406; Blain, 1972, pp.327-8).

The starting point which is often put forward as most fruitful for theory building in industrial relations is to concentrate on simple models which are specific enough to be tested empirically (Heneman, 1969, pp.19-24; Laffer, 1974, p.70; Bain and Clegg, 1974, p.105; Shimmin and Singh, 1973, p.42). More specifically, Parker and Scott argue that for the development of industrial relations theory through empirical

enquiry it is necessary, in the face of limited resources, to focus on a particular level - in their case the workplace - and to limit the scope of the enquiry by subject matter (1971, pp.214-9).

In methodological terms a broad distinction can be drawn between a broader survey type of investigation and a more intensive case study type of investigation. The latter is characterised by a larger number of variables but a smaller sample. While recognising, like Parker (1973, pp.25-6), that the two methods are complementary, the case study approach does have a special attraction for theory building in industrial relations. Twenty years ago Chalmers et al favoured such an approach since "at this stage in the development of general union-management theories, the greater contribution could be made by explorations in the interrelatedness among variables" (1953b, p.536). Comparative intensive case studies were, for the same reasons, favoured by Liverpool University Social Science Department (Scott et al, 1963, pp.4-5). More recently Boraston et al (1975) have illustrated the utility of the case study method.

An extreme form of the case study method is to concentrate the available resources on the examination of cases within a common environment or even on a single case. Thus it has been noted that "Flanders' 'The Fawley Productivity Agreements' (1964) showed that a single case study in which there is time to formulate and check hypotheses, and to reformulate and recheck them, can immensely enrich the understanding of industrial relations" (Bain and Clegg, 1974, p.102). Other writers have also noted the utility of a longer time dimension in studies (e.g. Somers, 1969, p.4; Shimmin and Singh, 1973, p.41).

The special values of a single case study approach, both in testing and synthesising existing theories and in developing modified or novel theories, are two-fold. First, and this is particularly important where the total resources to be devoted to a study are fairly small, it permits a wider range of aspects of the situation to be studied. Secondly, it ensures that a vast range of environmental variables are held constant. This helps in the examination of relationships between the variables which are of primary interest in any particular investigation.

The limitations of this approach must also be noted. Any case will contain elements of uniqueness as well as elements of uniformity (cf. Derber et al, 1960, pp.2-3). The extent to which any findings can be generalised spacially or temporally needs to be carefully considered. However, the empirical testing in a different environment of relationships found from a single case study may give clues to the influences of changed variables and so enhance the development of theory.

A MODIFIED RULES APPROACH TO INDUSTRIAL RELATIONS

The debate over the breadth and focus of the subject area of industrial relations is reflected in the plethora of definitions. (To give just a few examples: Bain and Clegg, 1974, p.95; Barbash, 1964, p.66; Behrend, 1963, pp.383-4; Cox, 1971, pp.141-2; Craig, 1973, p.1; Derber, 1969, p.177; Eldridge, 1968, p.11; Flanders, 1970, p.86; Gill, 1969, p.266; Heneman, 1969, p.4; Hyman, 1975, p.12; Laffer, 1974, pp.72-3; Margerison, 1969, p.274; Shimmin and Singh, 1973, p.37; Somers, 1969, p.44.) Since, as Bain and Clegg note, "A definition cannot by its very nature be 'right' or 'wrong'. It can only be more or less useful for

purposes of analysis" (1974, p.96), it is to these purposes of analysis that we must turn.

The main stream approach to industrial relations in this country and in the USA is the rules approach, and this had traditionally been associated with an open systems analysis of industrial relations. The term rules, it should be noted, is generally used as a generic description for various instruments of regulation including, among others, legislation, collective agreements, managerial decisions, and social conventions (e.g. Flanders, 1970, p.86). Dunlop, the main proponent of this approach, has claimed that "The central task of a theory of industrial relations is to explain why particular rules are established in particular industrial relations systems and how and why they change in response to changes affecting the system" (Dunlop, 1970, pp.viii-ix). His formulation of an industrial relations system as a sub-system of the total social system, with workers and their organisations, managers and their organisations and government agencies interacting in an environment comprising technological, market and power contexts to create a complex of rules to govern workplace and work community, with the system being bound together by a common ideology, is well known (Dunlop, 1970, p.viii). Dunlop stresses the applicability of the concept at different levels, for example, a nation or a workplace (1970, p.386).

The application of this approach both by Dunlop and by followers such as Munson (1963) has, however, often seemed to emphasise the output of the system - the web of rules - at the expense of the rule making process. Flanders, in stressing that "Personal, or in the language of sociology

'unstructured', relationships have their importance for management and workers, but they lie outside the scope of a system of industrial relations" (1970, p.86), may similarly be interpreted as giving little emphasis to an understanding of the motives of the actors and to the processes of rule making and administration.

A fundamental criticism of the rules approach which has been put forward is that it narrows the scope of industrial relations to the regulation of conflict. Such critics feel that the approach implies that systems are naturally stable and integrative and that it therefore precludes an adequate treatment of the nature and development of conflict. They see this struggle for control over work relations as central to the study of the subject (e.g. Margerison, 1969, pp.273-4; Hyman, 1975, p.12; Eldridge, 1968, pp.11 and 22; Fatchett and Whittingham, 1976, pp.51-3; Hartmann, 1973, p.6; Allen, 1971).

However, an overemphasis on conflict may in itself be restrictive. Indeed, in developing the rule approach, Dunlop has argued that "Industrial strife is a surface symptom of more fundamental characteristics of rule making and administration" (1970, p.380).

An approach to industrial relations which, it is claimed, provides an integrating theme since it can accommodate both conflict and consensus, is the bargaining exchange approach. Actor relations are viewed as an exchange conditioned by relative bargaining power, with rewards and costs involved in the exchange (e.g. Somers, 1969; Laffer, 1974). However, this approach, like the conflict approach, fails to give industrial relations the distinct and unique focus which the rules approach offers and such a focus is helpful for theory building (cf. Bain

and Clegg, 1974, p.97). A similar criticism can be raised against the approach of Heneman (1969, pp.15-16) who views the central task of industrial relations as to explain optimisable objectives such as job satisfaction or productivity.

It may, therefore, be fruitful to examine modifications and developments of the rules approach and to assume not "that any short-comings in the work of Flanders and Dunlop are inherent in the rules approach itself (but rather that they reflect) ... its current stage of development" (Goodman et al, 1975, p.17).

Walker (1969) has attempted to counter shortcomings of earlier applications of the rules approach through broadening the characteristics of actors to include attitudes of individuals and leaders, and inserting variables relating to the process of the interaction between parties. His intention is to describe and explain not only the authorship of the rules but also what might be termed the spirit of rule making. Similarly Blain and Gennard (1970) and Blain (1972) refine the rules approach through the introduction of a process variable and the related addition of a personality factor in a study of industrial relations in airlines. Craig (1973) makes a step towards operationality in ordering variables into inputs - both "within puts" from the actors in the system i.e. their goals, values, power; and "conditioning inputs" from the environmental sub-systems e.g. economic, political, social, - conversion procedures and outputs, and by incorporating feedback loops into the industrial relations system and environmental sub-systems.

It is a synthesis of these developments which lead to the definition of industrial relations as "the study of all aspects of job regulation -

the making and administering of the rules which regulate employment relationships - regardless of whether these are seen as being formal or informal, structured or unstructured" (Bain and Clegg, 1974, p.95). Industrial relations is, therefore, seen as including both structural and behavioural variables, both structured and unstructured relationships, both the institutions and rules of job regulation and the process of job regulation, both conflict resolution and conflict generation. This is a very broad definition, and in interpreting it some restrictions might usefully be considered.

One area is the question of which rules the subject of industrial relations is concerned with. An important contribution to clarification is made by Goodman et al (1975) and Wood et al (1975). These authors argue that "an analytical distinction can be made between the system which "produces" rules (i.e. the industrial relations system) and the system which is "governed" by such rules (i.e. the production system)" (Wood et al, 1975, p.295). This distinction leads to the identification of two different types of rules. The rules regulating the rule making process and hence governing action in the industrial relations system comprise one set. The rules which result from this process are the other set. These are outputs from the industrial relations system, not components of it, and govern action in the production system. In stressing that the core of study in industrial relations is the rule making process itself, these authors are reflecting the view of Cox that "The content of the decisions themselves are relevant to the study only in so far as they throw light upon the power relations amongst the actors in an industrial relations system and upon how the system determines the allocation of rewards" (1971, pp.141-2).

Goodman et al (1975) and Wood et al (1975) characterise the component rules of the industrial relations system as procedural rules and the output rules as essentially substantive rules. However, they make the important additional point that "those (procedural rules) which are concerned with (non-creative) administration of substantive rules may be seen along with the substantive rules as forming the output of the industrial relations system" (Goodman et al, 1975, p.25). The non-creative components of rule administration are seen, by the authors, as enforcement and information. A third component - interpretation - can, of course, involve rule making through amending or enlarging the rules being interpreted.

A second, and linked, area of interpretation is the question of the extent to which industrial relations is concerned to explain behaviour. This becomes particularly important with the widened emphasis on informal rules and unstructured relationships. Again Goodman et al (1975) and Wood et al (1975) make a useful contribution in arguing that a focus on rule making should not be at the expense of considering the link with behaviour. The primary link which these authors identify is through custom and practice (C & P) rule making, since C & P rules are not created within the rule making procedures of the industrial relations system but arise without, necessarily, any conscious decision or intention from the interaction between workers and management. Thus, "one might have to trace C & P rules from the production system to the norms which govern it, to the processes by which norms are re-institutionalised into rules" (Goodman et al, 1975, p.30). More generally they argue that "rule-making action (i.e. those "aspects" of behaviour directed towards rule-making), as opposed to the totality of

worker-management-government interaction, is central to the concept of the industrial relations system" (Wood et al, 1975, p.295).

There are several implications in this argument. One is that individual behaviours, such as resignation, which although directed to satisfying individual needs may stimulate employers to make certain changes in rules, are of concern in the study of industrial relations.

A second implication is that since behaviour includes the threat or use of sanctions, industrial relations can be taken to include the study of the nature and development of conflict in as far as this impinges on rule making and administration. A systems framework is well suited to examining the type of conflict Barbash is describing when he talks about industrial relations as "the management of conflict looking towards agreement, where each party recognises the right of the other parties to exist and the legitimacy of their claim to be heard" (1964, p.78). Can it also deal with a situation of the type which Fox, in his critique of pluralist ideology, puts forward as existing within the radical frame of reference? Here the employee collectively "has completely withdrawn legitimation from management ... (and) does not offer that contribution which, along with the corresponding contribution from management, creates the reciprocity of mutual survival" (Fox, 1974, p.137; see also Fox, 1973, pp.205-31).

The answer to this question lies in a third implication. This is that attitudes should be studied to the extent that they help in understanding rule making behaviour. Indeed, some writers use the term behaviour to include both actions, i.e. overt behaviour, and thoughts and attitudes i.e. covert behaviour (e.g. Reeves, 1967, p.148). A note of caution

must, however, be struck. There is not necessarily consistency between verbalised attitudes and overt behaviours (cf. Deutscher, 1966). As Lupton has noted of behaviour, "many choices involve a clash between attitudes stated with equal conviction" (1963, p.202; see also Rosen and Rosen, 1955, p.8; Seidman et al, 1958, pp.281-2).

A link can usefully be made between the analysis of radical conflict and the study of attitudes by considering an industrial relations system only as a device for ordering data, and attributing no predictive value to it (cf. Eldridge, 1968, pp.19 and 23; Gill, 1969, p.269). Behaviour is seen not as a reflection of the characteristics of a system which is external to the actors, but rather actors' definitions of reality and their goals and expectations are adopted as an initial basis for the explanation of their behaviour (Silverman, 1970, p.127; Beynon and Blackburn, 1972, p.3; Goldthorpe, 1966, p.240; Hyman, 1971, p.187; Reeves, 1967, p.161). Such an action frame of reference is able to take account of the internal dissention within parties (Hartmann, 1973, pp.4-5).

Through the adoption of such a frame of reference, radical conflict is not excluded from the rules approach to industrial relations. Like Fatchett and Whittingham it is possible to conceive of rule making and application as the central focus of analysis but to broaden the analysis to "involve examination of the differing perceptions of the content of rule making, thereby noting different attitudes to organizational 'aims' and differing ideological frameworks" (1976, pp.59-60).

It is an approach to industrial relations which takes as its starting point the definition of the subject by Bain and Clegg (1974), but incorporates the interpretations and restrictions noted above, which will be adopted in this study as a modified rules approach.

A GENERAL MODEL OF WORKPLACE INDUSTRIAL RELATIONS

To advance theory in workplace industrial relations through empirical enquiry, there is a need for a model to define variables and indicate the nature and direction of relationships. On a modified rules approach to industrial relations, the overall goal is to explain the process by which the rules regulating employment relationships are made and changed, and the content of the rules resulting from this process to the extent that this illuminates power relations amongst the actors.

The range of variables which may be suspected of influencing these rules concerning job regulation and the attitudes and behaviours related to their making and changing is vast. As Heneman notes, "The basic problem may be traced to the complex nature of industrial relations with an almost limitless number of variables and interrelationships of variables" (1969, p.4). Other writers have made a similar point (e.g. Bain and Clegg, 1974, p.96; Kornhauser, 1954, p.63). Thus Kerr, for example, has listed 67 important variables for inclusion in industrial relations case studies (Chalmers et al, 1953b, p.532).

Faced with this situation, there is a need for parsimony in the selection of variables and relationships for inclusion in a model (cf. Shimmin and Singh, 1973, p.38; Heneman, 1969, p.4; Bain and Clegg, 1974, p.106).

The suggestion that the choice in any specific study be made "by empirical investigation rather than by a priori reasoning" (Bain & Clegg,

1974, p.96) must, even with the aid of unstructured pilot investigations, remain an ideal rather than a practical possibility. Many arbitrary decisions must be taken when attempting to extract, with the smallest distortion of meaning, elements from a reality in which everything is interrelated with everything else (cf. Derber et al, 1960, p.18). Thus it is possible "to achieve, at best, only a partial understanding ... (but) since selection is essential, this is inevitable" (Scott et al, 1963, p.10).

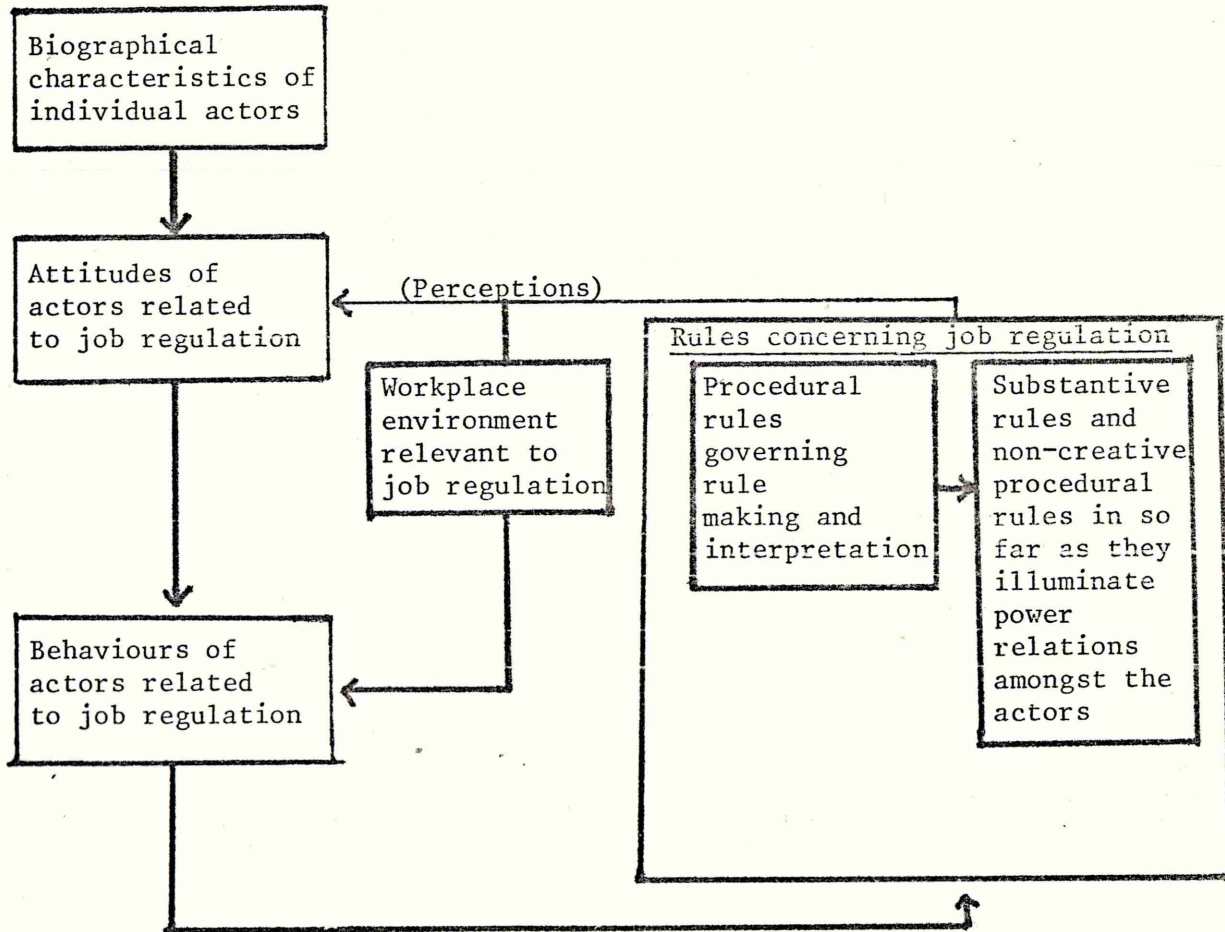
Walker makes a useful contribution in advancing the idea of strategic factors in industrial relations systems. These, in relation to a particular industry, are "those factors which, when they vary substantially, produce significant changes in the industrial relations pattern of the industry" (1969, p.201). The problem in actually identifying the strategic variables and critical relationships for a particular workplace study still remains.

Several writers discuss the selection of potentially relevant variables and order them in models (e.g. Reeves, 1967; Hameed, 1967; Topliss, 1970; Hartmann, 1973). Especially useful is a provisional general model of workplace industrial relations put forward by Parker and Scott (1971). This links five clusters of variables - quality of industrial relations, organisational/production variables, outside influences, development of the industrial relations system, attitudes/behaviours of the parties - with the first cluster as the primary focus of the model. Its utility is in indicating a range of variables and in suggesting a large number of testable hypotheses.

However, this model has shortcomings. The main ones are its failures to give sufficient emphasis to the rules regulating employment relationships, to specifically focus on the rule making process, or to draw sufficient attention to the importance of the perceptions of the actors as a basis for the explanation of their behaviour. On this last point, as Behrend has remarked on the question of conflict, it is "perceived interests rather than actual interests which determine whether the parties adopt co-operative or antagonistic attitudes" (1963, p.392). Since "the orientation which workers have to their employment and the manner, thus, in which they define their work situation can be regarded as mediating between features of the work situation objectively considered and the nature of workers' response" (Goldthorpe et al, 1968, p.182; cf. Beynon and Blackburn, 1972, p.4; Cotgrove and Vamplew, 1972, p.183), it is necessary to consider a range of biographical characteristics of individuals influencing their attitudes to work. On such an approach personality is not specifically considered, but is reflected in attitudes and behaviours related to job regulation (cf. Derber et al, 1960, pp.200-201).

Considerations such as these lead, on a modified rules approach to industrial relations, to the general model of workplace industrial relations presented in Figure I. This indicates the categories of variables to be considered and the principal interrelationships.

Figure I : A General Model of Workplace Industrial Relations



In this model, the workplace environment relevant to job regulation contains a multitude of factors related to the technical, economic, social and political context. A useful elaboration of such variables is given by Dunlop (1970). The workplace environment acts through its influence on the structural characteristics of the labour force and on their employment situation.

Attitudes of actors includes institutional goals and opinions of trade unions and employing organisations as well as the attitudes of individuals related to rule making and administration in the workplace. However,

explanations of the origins of the goals of institutions external to the workplace lies outside the scope of the model. The behaviours of actors related to job regulation include collective industrial action, sanctions imposed by individuals, behaviour in the work situation leading to the establishment of custom and practice, and rule interpretation behaviour leading to rule making. The backgrounds of individuals influencing their attitudes are treated in the biographical characteristics cluster. This includes variables such as age and employment experience.

A further factor necessary for an understanding of workplace industrial relations is the historical development of the workplace since, as Hyman has noted, "Traditional attitudes often prove stubbornly persistent even when their original objective foundation has long since crumbled" (1971, p.188; see also Munson, 1963, p.227; Dunlop, 1970, p.388). Other writers have drawn attention to persistent myths and to stereotyping (e.g. Sykes, 1965b, pp.326-36; Liverpool University, 1954, pp.90-1; Howells and Brosnan, 1972). In the model in Figure I the influence of such historical developments is reflected in the attitudes of the actors.

The model in Figure I emphasises that it is a multiplicity of determining conditions which together make the occurrence of a certain event probable. This points to the need for some multi-variate analysis which can take account of the fact that the interaction between variables may differ depending on the occurrence of other variables (cf. Dubin, 1960, p.503). In this context, typologies may be suggestive with regard to relationships between variables.

THE SETTING FOR THE CASE STUDY : A LARGE INDUSTRIAL
CONSTRUCTION SITE

INTRODUCTION

This chapter begins by outlining reasons for the choice of a large industrial construction site as a fieldwork setting for the case study. It continues with a description of the general structural characteristics of large sites and the behaviours experienced on them. Finally, the principal characteristics of the particular site chosen - the Merseyside large site - are described.

REASONS FOR THE CHOICE OF A LARGE INDUSTRIAL SITE AS A
FIELDWORK SETTING

The fieldwork setting chosen for this workplace level case study in industrial relations was a large industrial construction site. Although a contract research opportunity coupled with this researcher's training and interest in construction first focussed attention on the setting, it is a particularly potentially fruitful one for a single case study type of investigation for two main reasons.

One reason is that although large industrial construction sites have an economic importance disproportionate to the manpower they employ - in that they produce installations for the key energy industries, and major capital plant for the chemicals and ferrous and non-ferrous metal industries - there has been very little study of industrial relations on them.

At a national level the major report in the area is that of a working party formed by the NEDC (NEDO, 1970a; see also NEDO, 1976). In addition symposia and seminars at UMIST have discussed the same area (Wearne, 1970 and 1972). At site level, there have been a few reports of experiences on particular projects (e.g. CIR No. 29, 1972; Berry, 1963; Gray and Abrams, 1954). However, all these studies are essentially practitioner descriptions, with little analysis or attempt to link findings with any body of theory. The need for a much greater understanding of the specific situations arising in the setting of particular sites has been made (Thurley, 1972, p.464).

Thus large industrial sites are an area where there is a real need for systematic descriptive and analytical material on the complexity of the situation on a particular site. This will be of interest both in itself and as a necessary basis for building theory.

The second reason for favouring this research setting is that it lends itself particularly well to comparisons between sub-groups operating in an environment which in many respects is common. A single large site will contain a large number of separate contracting firms. These, in turn, can be grouped into a smaller number of categories each containing firms specialising in similar aspects of the total construction process. Thus there is likely to be rich diversity within a single common external environment.

GENERAL CHARACTERISTICS OF LARGE INDUSTRIAL CONSTRUCTION SITES

Large industrial construction sites have been defined as multi-million pound projects, with a peak labour force of a few thousand employees and a time duration of several years, constructing mainly large plant

for the process and power industries. The work is predominantly mechanical and electrical construction, but also involves civil engineering and building. Only about 18 per cent of total installed cost is attributable to site labour (NEDO, 1970a, pp.8-12, 69). Such sites have been viewed as an evolving third branch of the construction industry, with characteristics distinguishing them from building and from civil engineering (Wearne, 1972, p.1).

In manpower terms, large industrial construction sites are a fairly minor part of the total construction industry. Precise statistics are difficult. There is the lack of a clear definition of what comprises a large site, the fact that single contracting firms may employ men across a whole range of types of sites, and the question of the distinction between new work and maintenance. Added to this are fluctuations over time in the amount of construction in progress.

NEDO has estimated that approximately 40,000 men were, on average, employed in mechanical and electrical construction on large industrial sites in the late 1960s and early 1970s (1970a, p.8; 1972). To this number can be added an estimated 4,000 scaffolders, thermal insulation engineers, painters and plumbers (1970a, p.74). No figures are available for the number of general civil engineering and building workers employed on large sites, but if all types of construction had equal per capita labour costs, the figure might be estimated at around 7,500 (1970a, p.69). This figure for building and civil engineering workers sets a lower limit, and the figure might better be guessed as up to 15,000 men. Thus the average total labour force employed on large industrial sites in this period is unlikely to have exceeded 60,000 men.

Such a figure can be compared with a total of around 1,250,000 manual employees in the construction industry as a whole in this period (D E Gazette, August 1973, pp.739-49; Marsh and McCarthy, 1968, pp.49-50). This figure includes the 200,000 building and civil engineering operatives employed by local authorities, but excludes an estimated 200,000 men working under labour only subcontracting (Phelps-Brown Report, 1968, pp.14, 21, 159-60; P1B No.92, 1968, pp.7-8).

The labour force on large industrial construction sites is exclusively male and predominantly skilled. In the dominant mechanical and electrical construction areas, 70 per cent are craftsmen and only 10 per cent unskilled. The principal occupations are rigger-erectors (19 per cent), pipefitters (17 per cent), welders (15 per cent), electricians (15 per cent), and millwrights (11 per cent) (NEDO, 1970a, pp.67 and 74). This contrasts with only 10 per cent of craftsmen in civil engineering as a whole, and 50 per cent in building (P1B No. 91, 1968, p.5; P1B No. 92, 1968, pp.7-8).

The principal structural characteristics of large industrial construction sites which are likely to be of some relevance from an industrial relations viewpoint are, briefly, as follows.

There are a number of different contracting firms in various forms of contractual relationships with each other and with the client.

Additionally the client may employ an established labour force on the same geographical site. The contracting firms will differ from each other in size; composition of labour force in terms of skill levels, occupations, geographical origins; employment policies; characteristics of their managements and supervision, and the like. They may also differ in their terms and conditions of employment and in their collective

bargaining procedures. On this factor public sector clients have been characterised by the absence of a site agreement together with a very large number of contractors, while private sector oils and chemicals clients have been characterised by a site agreement and a smaller number of contractors. The occupational diversity of the overall labour force leads to a number of different unions organizing on site.

From the very nature of construction, a site is only temporary. However, some sites, particularly in petro-chemicals, may have a duration of a decade or more, although the duration of contracts for individual firms will probably be less than the total duration of the site. At site and at company level the size and skill composition of the labour force will vary over time, while for some individuals there will be unstable and temporary employment.

Indeed, at the time of the study, unemployment in the construction industry as a whole was about three times as great as in all industries and services (D E Gazette, July 1971, p.633; July 1972, p.641; July 1973, p.673; August 1973, pp.739-49; August 1974, p.713), while twice as many men in the construction industry had been with their current employer less than one year (D E Gazette, April 1972, pp.347-51; July 1973, p.654). In nationally operating civil engineering firms, only between 20-30 per cent of employees were regarded as permanent members of their labour force (Phelps-Brown Report, 1968, pp.60-1). Nevertheless the situation is far from uniform and "many construction workers enjoy in practice as much security of employment with their firms as many workers in other industries" (Phelps-Brown Report, 1968, p.81).

With specific reference to large sites it has been estimated that in 1970, 12 per cent of men were unemployed at any one time, and that only 37 per cent of craftsmen - and for major oil and chemical contractors

half this figure - were regarded as permanent employees (NEDO, 1970a, pp.54-5, 76). Labour turnover averages around 120 per cent per annum, and for major oil and chemical contractors can be almost 200 per cent (NEDO, 1970a, pp.81-2; see also CIR No. 29, 1972, p.56).

On any single project a typical approximate overlapping technical cycle of first civil engineering work, then mechanical work, then instrument and electrical work and finally thermal insulation work and painting, can be traced. Within each broad stage there will be fluctuations in demand for skills with, for example, the greatest demand for rigger-erectors at the start of the mechanical phase.

Construction work takes place predominantly out of doors. It is therefore subject to the vagaries of the weather. Working conditions may be hazardous or unpleasant. At the same time the work is generally not machine paced and allows a fair amount of freedom of physical movement. The labour force is likely to be predominantly young (e.g. PIB No. 91, 1968, p.5; PIB No. 92, 1968, p.39; PIB No. 120, 1969, p.4).

There is fairly widespread movement between the roles of operative, shop steward, supervisor and manager. Several writers have noted that the existence of promotion channels from operative rank through supervision to managerial posts is a characteristic of construction and perhaps particularly of engineering construction (e.g. Hilton, 1968, p.xi; NEDO, July 1971, p.52). A consequence of the insecurity of employment is the often temporary occupancy of a supervisory post (e.g. Myers, 1946, p.3; Dunlop, 1961, p.262; PIB No.91, 1968, p.17; Seidman et al, 1958, p.49). As a counter to the above it should be noted that one survey in the building industry found that the amount of up-and-down grading was no greater than in other industries (Thomas, 1968, p.37).

Three principal industrial relations consequences have generally been associated with large industrial construction sites. These are concerned with earnings, with strikes, and with productivity.

Large industrial sites have been characterised by high levels of earnings for operatives. This is often aided by overtime working and by bonus schemes. NEDO has noted that the levels of weekly earnings considerably exceed those for skilled engineering workers elsewhere and for construction generally (1970a, pp.72-3).

On strikes, such statistics as are available suggest that large industrial construction sites are highly strike prone. The DE, using conservatively estimated figures, found that in 1968 only three industries lost more days per man employed, and that the strike loss on large sites was over six times greater than the average for construction generally (NEDO, 1970a, p.107). Other large sites, admittedly studied because of the problems on them, showed a very high strike incidence (e.g. Berry, 1963, pp.68-9; CLR No. 29, 1972, pp.7-10). Strikes are only the tip of the iceberg, and the frequent use of industrial action short of strikes, continuous bargaining pressure, frequent breaches of disputes procedures, frequent recourse to dismissal, and the typically rudimentary state of methods used to deal with industrial relations problems have also been noted (e.g. NEDO, 1970a, pp.39, 101-4; Wilson Report, 1969, p.23; Berry, 1963, pp.10, 31-3). Similar behaviours have been observed on an Australian large site (Casey, 1973). Underlying these behaviours is an "endemic mistrust which prevails on both sides" (NEDO, 1970a, p.33). However, the strike pattern is not necessarily uniform, and a much lower incident rate of disputes among civil engineering workers has been reported from several large sites (e.g. Wilson Report, 1969, p.19; CLR No. 29, 1972, p.4). Overall

engineering construction performance in the U.K. compares unfavourably with that in the U.S.A. or Western Europe (NEDO,1976).

There has been concern over delays in completion of large construction projects with all the losses that this entails (e.g. Wilson Report, 1969; CLR No.29, 1972). Although labour disputes are a contributory factor they are, in the opinion of many construction managers, only a minor one. The principal causes of delay are design changes and problems with delivery of materials. Of those causes which might be attributed to the workforce, the main one is unexpectedly low labour productivity (NEDO, 1970a, pp.12-14; Wilson Report, 1969, p.16). It has been argued that only 32 per cent of clocked hours on large sites are spent in effective work, although this figure does include losses due to inclement weather (Wearne, 1970, p.11). Other surveys on large sites, in electrical contracting, in civil engineering, and in building, echo the concern over the small percentage of hours spent in productive work (e.g. NEDO, 1970a, pp.14 and 42; P1B No. 120, 1969, p.28; P1B No. 91, 1968, pp.13-14; P1B No. 92, 1968, p.17).

PRINCIPAL CHARACTERISTICS OF THE MERSEYSIDE LARGE INDUSTRIAL CONSTRUCTION SITE

The fieldwork for this study was carried out on a large petro-chemicals construction project situated on the edge of an urban conurbation which will be referred to here as the Merseyside large site. The study concentrated on the period mid 1971 to mid 1973. This period was marked at a national level by the passing and attempted implementation of the Industrial Relations Act 1971, and by the Conservative Government's incomes policy beginning in November 1972. At a local level, unemployment among all construction trades in the Liverpool travel to work area

rose from about 6,000 in Spring 1971 to over 8,500 in Spring 1972 and then declined somewhat to about 7,500 in Spring 1973 (unpublished DE statistics).

The Merseyside site has a long history. The petro-chemicals complex has been in an almost continuous state of expansion and renewal since its establishment in 1922. At all times since 1951 some contractors have been working within the refinery boundary. However, it is only since the late 1960s that the construction labour force on site at any one time has exceeded a few hundred men. A period of intensive construction activity began in 1971 when a major expansion programme, involving a capital expenditure of £110 million over three years, was embarked upon.

During the period of the study, between 25 and 45 contracting firms were on the site at any one time. The peak total construction labour force was 3,600 and the minimum was 2,000. Although the largest contractor had a peak labour force on site of about 500, over 80% of the firms had 75 or less manual employees with the smallest having a peak labour force of 5 men. Only about 10% of the construction labour force was living in lodgings.

On the same physical location the client company employed some 4,000 staff involved primarily in the operation and day-to-day maintenance of the existing plant. Since 1969 all these employees had enjoyed staff status as a result of a productivity agreement. There was extremely little contact between the two groups of workers or their stewards, and comparisons of terms and conditions of employment were viewed by both sides as largely irrelevant.

The construction labour force was divided into five principal occupational groupings; the mechanical, civil, thermal insulation, electrical and scaffolding trade groups. All shared a common feature of 100 per cent union membership for both manual workers and first line supervisors.

The mechanical trade group was numerically the largest encompassing, on average, some 45 per cent of the total construction labour force. The number of firms varied between 9 and 13. The work involved the site fabrication and erection of heavy mechanical plant and the associated pipework and supporting structures, and the installation of mechanical instrumentation. About 83 per cent of the manual workers in this trade group were skilled men, with pipefitters, rigger-erectors and welders as the dominant trades.

The terms and conditions of employment and associated negotiating and disputes procedures in the mechanical trade group were defined in a site agreement negotiated between a contractors' panel and a union panel. The employers' side was an ad hoc grouping of representatives from the major mechanical contractors currently working on site. There was no linking with any common employers' association. The union side had five full-time officer members originally representing the five unions which organised in the trade group, although subsequent union mergers meant that in some cases they represented only sections of larger unions. They continued to be regarded, however, as separate interest groups and for this reason will be referred to by their original abbreviations. The unions involved were the Amalgamated Union of Engineering Workers - Constructional Section (CEU), the Amalgamated Union of Engineering Workers - Engineering Section (AEU), the

Amalgamated Society of Boilermakers, Shipwrights, Blacksmiths and
Structural Workers (BMS), the Electrical, Electronic, Telecommunication
and Plumbing Union - Plumbing Section (PTU), and the National Union of
Sheet Metal Workers, Coppermiths, and Heating and Domestic Engineers
(H & D).

All firms in the mechanical trade group had the same formal rules governing employment relationships. There was a forty hour, five day working week, with overtime permitted only in exceptional circumstances and with the permission of the client company. All craftsmen were paid a common time rate and all mates a lower common time rate. In addition there was a standardized productivity incentive scheme devised and monitored by a firm of quantity surveyors who were paid by the client company. The bonus payable under this scheme was calculated separately by each contractor on a company wide basis on site by comparing actual manhours spent on jobs during each week with target manhours. Bonus was expressed as an hourly rate. Thus each week the bonus rate was common between craftsmen in one company, but differed between companies.

There was a mechanical site shop stewards' committee, made up of one steward from each union in each firm in the trade group. This elected a sub-committee, the "Super Six", with one steward from each of the five unions plus a steward designated as site convenor. Neither this sub-committee nor the convenor was formally recognised by the employer, although the client, in particular, had informal contacts.

The civil engineering trade group was the second largest on site. It encompassed, on average, about 30 per cent of the construction labour force. The bulk of these men were employed by four firms, although

additionally there were some transitory sub-contractors. The work involved the construction of foundations and access roads, the installation of cables, and the occasional building of framed structures. About 85 per cent of the labour force was classified as unskilled.

In the civil trade group, the industry wide provisions of the Civil Engineering Construction Conciliation Board for Great Britain (CECCB) defined basic terms and conditions of employment and negotiating and dispute procedures. The signatory unions with members on site were the Transport and General Workers' Union (TGWU) and the Union of Construction, Allied Trades and Technicians (UCATT). The latter organised the majority of craftsmen. The four major firms were all members of the Federation of Civil Engineering Contractors.

Terms and conditions in the civil group were not entirely uniform between firms. Three of them regularly worked overtime and one did not. One firm concentrated its overtime working on a weekend, while the others extended the working day. One firm operated a crude measured productivity incentive scheme while the other firms paid different arbitrary spot bonuses. Earnings in the civil trade groups were, on average, the lowest on site. Unlike in the mechanical trade group, the stewards in the different civil firms did not meet regularly to formulate common strategies.

The thermal insulation and the electrical trade groups were both about the same size, each employing about 7 per cent of the total construction labour force. Considering first thermal insulation, there were throughout the study four companies on site engaged in the work of lagging pipes and vessels. Just over half the total number of employees were

thermal insulation engineers (lagers), while the remainder were divided fairly evenly between labourers and sheet metal workers. The latter worked mainly indoors in small shops. Lagers and labourers were organised by the National Union of General and Municipal Workers (GMWU), and the metal workers by the H & D.

Broadly, the thermal insulation trade group was subject to the Working Rules of the National Joint Council for the Thermal Insulation Industry. The union side of this is composed only of GMWU. The employers' side is the Thermal Insulation Contractors' Association, of which all four companies were members. However the basic pay rate and certain other conditions were varied from the national agreement to bring them in line with the mechanical site agreement. In addition a standardised audited incentive bonus scheme, parallel to the one in the mechanical trade group, was operated on a company wide basis. The level of bonus earnings in the thermal insulation trade group was generally lower than the average for the mechanical trade group.

When construction was at its peak in late 1972, the thermal insulation stewards elected their own senior steward who liaised with the "Super Six". Like his mechanical counterpart, the lagers' convenor was not formally recognised by management.

The electrical trade group was made up of between five and six electrical contracting firms. The smallest of these employed only two men for several months of the research period. The work of the trade group ranged from the connection of heavy power cables to the installation of electronic monitoring and control equipment. Their non-supervisory labour forces were composed almost exclusively of skilled electrical fitters and apprentices, and these were members of the electrical

section of the Electrical, Electronic, Telecommunication and Plumbing Union (ETU).

The group was subject to the National Working Rules and Industrial Determinations of the Joint Industry Board for the Electrical Contracting Industry (JIB). This is a joint body established by the ETU and the Electrical Contractors' Association. It sets a standard and not a basic pay rate. However, from April 1972 a special dispensation was obtained from the JIB, in the wake of its experiences on the Alcan site, to allow the electrical firms on the Merseyside large site to operate an audited, company wide bonus scheme like those in the mechanical and thermal insulation trade groups. With the introduction of this scheme, the long overtime hours which had been a characteristic of the electrical trade group were almost totally eliminated. In late 1972, in a move parallel to that in the thermal insulation trade group, the electrical stewards elected a senior steward to help co-ordinate activities between firms and liaise with other trade groups.

The smallest of the five occupational groupings was the scaffolding trade group. This accounted for only about 4 per cent of the total construction labour force. There were two specialist scaffolding contractors on site throughout the study, with a third on site for part of the time. Scaffolding both for new construction and for maintenance was erected. The labour force was made up in the ratio of one mate to every two or three scaffolders.

All the scaffolders and mates were members of the TGWU. This contrasts with a CEU preponderance in organising this occupation on large sites and in the North West. The basic terms and conditions and collective bargaining procedures for the trade group were the National Working Rules

agreed by the National Joint Council for the Building Industry (NJCBI). However a special site supplement was paid above the basic rate, and additionally each firm operated their own forms of gang bonus schemes. These paid a set number of hours for each specified job regardless of the actual time spent in carrying out the work. It was these schemes which led to earnings in the trade group being generally the highest on site. As in the civil trade group, there was little contact between the stewards in the different firms.

The client company on the Merseyside large site had, in addition to deciding the whole structure of the site and selecting individual contractors, some direct involvement in the construction process. First, the client provided and was responsible for many of the basic facilities on site including toilets, canteens, some mess huts and a medical service. Facilities were generally good by the standards of the industry. Secondly, the client employed technical staff to monitor the speed and quality of construction and a small number of industrial relations staff to provide an advisory service to contractors' managers. In dealing with the contractors, penalty clauses for late completion - which were seldom implemented because of the difficulty in legally apportioning the blame for delay - and the more real sanction of non-selection for future work were available to the client.

Although at the start of the research no precise data was available, two particular broad patterns of behaviour were especially apparent on the Merseyside large site. One area was that of overt industrial conflict. Certain firms seemed to have a very high number of fairly short stoppages of work, usually in breach of grievance procedure, intermingled with other forms of industrial action. This was concentrated particularly

among some firms in the mechanical and scaffolding trade groups, while the civil trade group was noticeably free of such action. A particularly notorious incident which had taken place in the mechanical trade group in the late 1960s will serve as an example. In this a 'cat. cracker' revamp, originally scheduled to last four months, was finally completed on the third attempt almost three years after beginning the work. The main contractor on the project twice sacked its entire labour force, and was eventually removed by the client and replaced by a number of small contractors.

The second and related area was that of pressure for, and to varying extents the achievement of, union influence over recruitment/selection in particular but also over manning levels and other areas of managerial relations. This was concentrated in the mechanical trade group and in one firm in the scaffolding trade group. Such arrangements were part of custom and practice (C & P) and were not incorporated in formal agreements (cf. Brown, 1972, pp.43, 48; Brown, 1973, pp.84, 102; Flanders, 1970, pp.202-3; Clegg, 1972, pp.249-50).

THE FOCUS OF THE CASE STUDY

INTRODUCTION

In this chapter, the general model of workplace industrial relations is applied to the fieldwork setting of the Merseyside large site. The two areas to be investigated in the case study - conflict and union involvement in the making of rules concerning labour recruitment/selection, utilisation and termination - are identified and the methods of analysis to be utilised are outlined. There then follows, separately for each area, a review of the relevant literature and a presentation of hypotheses for testing.

AREAS TO BE INVESTIGATED

On a modified rules approach to industrial relations the overall goal is to explain the process by which the rules regulating employment relationships are made and changed, and the content of the rules which result from this process to the extent that this throws light upon the power relations amongst the actors. In applying this approach to the fieldwork setting of the Merseyside large industrial construction site, the opportunities and limitations of a single case study need to be considered.

Such a study may most usefully focus on 'internal' job regulation (Flanders, 1970, p.90) i.e. on rule making and administration taking place within the workplace. Aspects of job regulation taking place outside the workplace, such as the negotiation of four of the formal collective agreements operating on the Merseyside site, can best be treated as part of the environment influencing internal job regulation. A single case study provides an opportunity to examine a complex of interactions within a framework in which a large range of environmental influences are held constant but can, nevertheless, be specified. As the general model of workplace industrial relations (Figure 1 in Chapter 1) illustrates, there is an opportunity to investigate the influences of actors' backgrounds and perceptions of those aspects of their current workplace environment (including rules) which vary between sub-groups on site on their attitudes related to job regulation. The facilitating or constraining influences of this workplace environment on the translation of attitudes into behaviours and on the rules resulting can also be examined.

Initial contact with the Merseyside site, coupled with an examination of the literature on large industrial sites in particular and construction sites in general, indicated the following two interrelated aspects of job regulation as being of particular interest and importance.

First, in the making, administering and changing of rules, the frequent use of strikes - often in breach of procedure - and of other forms of collective industrial action such as working to maximum safety and recruitment embargoes has been noted in Chapter 2. Such group behaviour has been termed organized conflict, and it cannot meaningfully be examined in isolation from alternative individual behaviours which have

been termed unorganized conflict (Scott et al, 1963, pp.39-51).

Measures of the latter include voluntary labour turnover, voluntary absenteeism, accident frequency and productivity (Kornhauser et al, 1954, p.14; Knowles, 1952, pp.225-6; Fox, 1971, p.81). High levels of unorganized conflict also characterise large industrial sites.

This study will, therefore, investigate the effects of factors which vary between firms on the Merseyside large site on the amount and form of conflict exhibited in these firms. For organized conflict the focus for explanation will, of course, be on industrial action originating in a single firm rather than on site wide action or action common to a whole trade group.

Secondly, in the content of the rules regulating employment relationships which are made on site, the following areas are of particular interest. There is, in construction, particular emphasis on rules in the labour recruitment/selection and termination areas because of the temporary nature of sites and resultant insecurity of employment (e.g. Dunlop, 1970, pp.201-8; Dunlop, 1961, pp.258-62; Haber and Levinson, 1956, pp.157 ff; Liverpool University, 1954, p.115). Indeed in the construction industry in the USA, recruitment rules have often been formalised through union hiring halls, although employers have usually been allowed a high degree of freedom over layoffs (Ross, 1972, pp. 366-79; Myers, 1946, pp.127-8; Haber and Levinson, 1956, p.186). Rules in these areas characterise parts of the Merseyside large site as do rules in a further area. These are over aspects of managerial relations such as levels of manning and working in inclement weather. The study will, therefore, examine the content of rules in these areas and investigate the effects of factors which vary between firms on the

Merseyside large site on the amount of union involvement in their making and administration. It will also examine the link between the amount of union involvement in these rules, and manifestations of conflict.

Three methods of analysis will be utilised in investigating these aspects of job regulation. One is the statistical testing of hypothesised bivariate relationships. For individuals this will involve an examination of links between, on the one hand, their biographical characteristics and perceptions of workplace environment and rules and, on the other hand, their attitudes. For firms, it will involve an examination of links between, on the one hand, their structural and attitudinal characteristics and rules and, on the other, the amount and form of conflict; and also between conflict and amount of union involvement in rule making.

The second method is a typal analysis. For individuals this will involve the identification, within roles, of those who share a range of common attitudes, together with the biographical characteristics and aspects of their current employment situation which distinguish the types. For firms it will involve the identification, within trade groups, of types sharing a range of common amounts of conflict and union involvement in rule making, together with the structural and attitudinal characteristics distinguishing them.

The third method, which is a support to the others, is description and qualitative investigation. This will be of particular value in interpreting findings from the bivariate and typal analyses, since it is specific combinations of variables which result in particular behaviours and outcomes.

CONFLICT

Review of the literature

The aim in this study is to explain the effect of factors which vary between firms on the Merseyside large site on the amount and form of conflict exhibited. Several writers stress the complex causes of conflict in general and of strikes in particular. Knowles, for example, identifies three levels of causation of strikes - immediate, conditioning, underlying (1960, pp.309-12; see also Lockwood, 1955, p.337; Wellisz, 1953, p.346). Rees notes that some grievances are at least semi-durable and are only brought to the fore when conditions are conducive to success (1954, p.220). The situation is further complicated through the realisation that the parties involved may see different reasons for a strike and these may vary over time (Gouldner, 1954, pp.53-5, 59-60). It is within such a framework that the review of the literature must take place.

One factor which distinguishes between firms is the number of employees which they have on the Merseyside site. In general, smaller firms and plants have often been shown as associated with less strikes, absenteeism, accidents and labour turnover (Cleland, 1955, pp.53-63; Blauner, 1964, p.54; Eisele, 1970; Indik, 1963, pp.371-3; Ingham, 1967, pp.239-41; Porter et al, 1975, pp.250-2; Silver, 1973, p.78; Liddell, 1954, p.80). Explanatory intervening variables such as functional specialisation, bureaucratisation, and self-selection by individuals have been put forward (Talachchi, 1960; Indik, 1963 and 1965; George et al, 1977; Turner et al, 1977; Ingham, 1967 and 1970). On industrial sites, the predominantly temporary employment situation is likely to mean that self-selection of a particular size of firm because it is seen as

providing a conducive work environment is likely to be of less importance than the other intervening variables.

A further way in which the size of a firm may be related to levels of conflict - and particularly organized conflict - is through the union strategy of "key bargaining". Concentration of union resources on a single firm in order to try to win concessions which can then be carried over into other firms has been observed on large sites (e.g. Berry, 1963, p.11). It might be expected that the more important firms, as measured primarily by their size, would be most subject to this pressure, and that key bargains would lead to more conflict than satellite bargains (Kerr and Siegal, 1954, pp.201-2; Siedman, 1965, p.5; Eldridge, 1968, p.51). Nevertheless, the causes of conflict are complex, and the lack of connection between size of firm and level of labour disputes has been reported from one large site (Berry, 1963, p.23).

The security of employment which a firm offers may be related to its number of employees. As a generalization, smaller companies in construction are likely to experience greater labour stability (NEDO, 1970a, p.77; Phelps Brown Report Research Supplement, 1968, p.35). However, since the employment policies and product market situations of firms differ, the security of employment offered or perceived as being offered by a firm may more usefully be treated as a separate aspect of the workplace environment relevant to job regulation.

Insecure employment situations have often been seen as having detrimental consequences for productivity, safety and quality of work since "Casual employment promotes a casual response from employees" (NEDO, 1970a, p.55; see also Phelps Brown Report, 1968, p.86, NEDO, 1976, p.19). In the shipbuilding industry, insecurity of employment

has been put forward as a factor leading to low commitment by employees to any particular firm and, therefore, as encouraging a high strike frequency (Brown and Brannen, 1970, p.205; Cameron, 1964, pp.6-7). From large sites there is evidence that the greater the proportion of "permanent" employees in a contractor's labour force the less the number of disputes (Berry, 1963, pp.23-4; NEDO, 1970a, p.55). Of course, this might just reflect generally more sophisticated personnel policies of firms with fewer casual employees.

Insecurity of employment, through increasing the proportion of issues which are "perishable", may also be a general factor encouraging the use of unconstitutional strikes. In the absence of a status quo agreement such issues are lost by default unless immediate industrial action is taken (Eldridge, 1968, p.70; Hyman, 1972b, p.18). Once a tradition of rigorous militancy had been built up in a few firms on a site, then it tends to spill over and influence behaviour in other firms on the site (Wearne, 1970, p.17; CIR No. 29, 1972, pp.7-10; Brown et al, 1972, p.27).

Related to the security of employment which firms offer is the length of time they are on a site. There is evidence from large sites that disputes and other manifestations of conflict are most pronounced at the start of a job and in its closing stages (Wilson Report, 1969, p.26; Berry, 1963, p.30). This reflects the practice of many firms to hire a new labour force at the start of a contract, with a resultant learning period for both managers and workers, while impending redundancy at the end of the job creates little incentive for co-operative behaviour.

Another aspect of the workplace environment which varies between firms on the Merseyside large site, and which influences the amount and form of conflict, is the technological characteristics of the work situation. At a macro level this influences the bargaining power of groups on site through determining their position in the technical cycle. For example, civil engineering work comes at the start of projects before vast capital sums have been expended. At an intra-organizational level, technology influences the skill and occupational mix of the labour force and organizational structures and social systems. The pattern of organization, however, really needs to be considered as a separate variable since variations are possible within the overall limits on the division of labour set by technology (Eldridge, 1968, p.45).

There is evidence that technological and related organizational characteristics of firms influence the quality of pressure exerted by interest groups (e.g. Sayles, 1958, p.11-39, 68-93). In particular they affect the likelihood of the growth of fractional bargaining, i.e. informal bargaining between work groups and local management using sanctions as complementary to the use of procedure (Kuhn, 1961, pp.78-9, 144-8, 167-9; see also McCarthy and Parker, 1968, p.19). Additionally, payment by results schemes typically create opportunities for fractional bargaining and contribute to strike propensity (Clegg, 1972, pp.322-6). Further factors such as the mix of geographical origins, length of service distribution and density of unionisation of a labour force, also act to unify or divide it and so influence responses to situations which are perceived as unsatisfactory (Brown and Brannen, 1970, pp.202-5; Brown et al, 1972, pp.19-23, 32-3; Poole, 1976; Kerr and Siegal, 1954, pp.191-5, 203). Less cohesive and lower status groups have been shown

as generally unable to express any dissatisfaction through effective organized conflict and thereby to improve their position. Thus Scott et al identify an inverse relationship between morale and amount of unorganized conflict but find no firm connection between morale and amount of organized conflict (1963, pp.187-9). Labour market and product market factors also influence the bargaining power of groups and through this the ways in which conflict is manifested. An important aspect of the labour market which varies between firms on the Merseyside large site is the amount of union control over labour recruitment/selection and termination. The link between rules in these areas and conflict will be discussed in the next section of this chapter. An important aspect of the product market is the urgency of the client's need for the completed plant. There is evidence that a publicized urgent need for completion may increase the strike frequency rate and the amount of unconstitutional industrial action (Berry, 1963, pp.12-14).

Actors' perceptions and interpretations of their workplace environment provide the basis for understanding their behaviour. Thus in the area of security of employment, survey evidence from large sites and from the building industry on the importance which workers attribute to it is inconclusive (NEDC, 1969, p.11; Thomas, 1968, pp.44-5). The traditional navvie has been seen as having a dominant value of independence and therefore as evading situations through individual mobility rather than staying to fight on issues (Sykes, 1969a, pp.21-35; Sykes, 1969b, pp.166-71; Davis, 1948, p.57). The typical absence of sustained work group pressure and of restrictive labour practices in building and civil engineering has been noted (Marsh and McCarthy,

1968, pp.68-9; Hilton, 1968, p.182; TUC, 1969, p.48; Phelps Brown Report, 1968, pp.71, 86; PIB No. 91, 1968, pp.10, 38). On the large sites, however, the more typical response to insecurity may be an exaggerated sense of solidarity or loyalty to fellow workers as is found in other casual employment situations (Fox, 1966; p.28; Mellish, 1972, p.59; Sykes, 1969b, pp.168-71).

In considering the link between the attitudes of the actors and the amount of organized conflict in firms, the roles of the various actors needs to be understood.

On the management side, the senior line manager in each firm is likely to be of dominant importance. It is his decisions in response to technical and economic problems and to employee actions which can contribute to the creation of industrial relations problems and to their solution. However, first line supervisors, although they generally have a limited formal role in employment matters related to the manual labour force may, through inept behaviour, exacerbate existing problems or create new ones (e.g. Berry, 1963, p.48).

On the union side, the key role is that played by the shop stewards. Privileged access to management and control over information channels does allow them to exert a fair amount of influence over the opinions of the rank and file members (cf. Sykes, 1964; Lipset et al, 1956, p.413). This influence is likely to be enhanced where there is a fluctuating labour force (Cameron Report, 1967, p.4). Nevertheless, as elected officers requiring the support of the rank and file to remain in post, there is little scope for stewards to impose their will on a large proportion of unwilling members (McCarthy, 1966, p.72; McCarthy

and Parker, 1968, pp.29, 57-8; Pedler, 1973, pp.52, 56; Parker, 1974, p.53). The predominant role of stewards "as 'shock absorbers' of the industrial relations machinery" (Clack, 1967, p.91) has been noted. (See also Parker, 1974, pp.54, 94, A34; Poole, 1974, p.61; McCarthy and Parker, 1968, p.56.)

The attitudes of both shop stewards and managers are important in understanding fractional bargaining and unconstitutional industrial action. Stewards are more likely to engage in such behaviour when they believe it is likely to be effective in securing concessions (CIR No.29, 1972, p.27; Mills, 1971; Hyman, 1972a, p.50), or where they consider management is being unfair or view the general industrial relations system as unfair and its rules as illegitimate (McCarthy, 1966, pp.24-5; Goodman and Whittingham, 1969, pp.176, 186; Parker, 1974, pp.68-9; Pedler, 1973, pp.51-2; Fox, 1974, p.23; Hyman, 1972b, p.38; TUC, 1969, p.44). Distrust on some large sites, including allegations that managements deliberately provoke strikes in order to serve their own ends, has been reported (e.g. Cameron Report, 1967, pp.19, 51). Managers are likely to encourage such behaviours through a preference to deal with stewards rather than union full-time officials and a willingness to grant ad hoc concessions (Workplace Industrial Relations, 1968, pp.3, 86; Parker, 1974, pp.14-15, 61, A30; Goodman and Whittingham, 1969, pp.190-1; Marsh et al, 1971, p.99; Brown, 1972, pp.52, 58-9; Hyman, 1972a, p.63).

There is some evidence in the literature on the influence of biographical characteristics of actors on attitudes related to conflict and behaviours in this area.

One biographical factor is skill level. It has, for example, been said of apprenticeship that besides training in skills it "also leads to a clear social definition of group membership and a homogeneous group composition" (Brown and Brannen, 1970, pp.199-200). There is a general finding that employees in higher skill level jobs exhibit lower labour turnover and absenteeism than those in lower skill jobs (Baldamus, 1961, p.22; Ingham, 1970, p.21).

Another characteristic is age. There is some general connection between age and attitudes and behaviours (e.g. Beynon and Blackburn, 1972, pp. 24-5). Older employees tend to exhibit lower voluntary labour turnover and voluntary absenteeism than younger employees (Scott et al, 1963, pp.100, 128-9; McCarthy and Parker, 1968, p.26; Parker, 1974, p.100; Phelps Brown Report, 1968, p.70; Shimmin, 1962, pp.124-5; DE Gazette, April 1972, p.351).

A third biographical characteristic is experience of holding other roles. The fairly widespread movement, in construction, of men between the roles of operative, shop steward, supervisor and manager has been noted in Chapter 2. At a general level it has been claimed that a clear promotion path from operative to manager leads to greater common understanding (e.g. Brown and Brannen, 1970, pp.206-7; Liverpool University, 1954, pp.89-90). For the construction industry in the USA, Strauss asserts that the small social gap between managers, supervisors and operatives means that "they see problems from the same point of view" (1958, p.69; see also Strand, 1959, p.63). This is an oversimplification. Turnstall, for example, has described how trawler skippers maintain their working class life style but tend to cut ties with deckhands (1962, pp.210-11).

Three principal sets of explanatory variables may be relevant in seeking to explain any differences in attitudes and behaviours between those who have experienced role mobility and those who have not, and the link with conflict. One is in the area of communication. For example, managers who have been promoted from the shop floor might be expected to be familiar with the dominant speech mode of shop stewards which is likely to be a restricted as contrasted with an elaborated speech code (Poole, 1974, p.76; see also Bernstein, 1962 and 1964). This may avoid misinterpretation of stewards' remarks "as a hostile or aggressive (rude) response" (Bernstein, 1958, p.170). In general, experience of role mobility could lead to a reduction in communication problems.

The second is in the area of understanding and knowledge. Appreciation of the culture of the shop floor and the importance of custom and practice might be expected among managers promoted from operative level (cf. Hagen, 1965, p.346).

However, communication skills and understanding of shop floor culture are neither the exclusive nor the inevitable preserve of managers promoted from the manual worker rank. Indeed in considering the third set of variables - relating to socialization and to self-consistency - it may well be that those who aspire to or experience role mobility are not typical of their group of origin. To seek promotion, for example, is to emphasise individual as opposed to collective means of achieving desired goals (cf. Goldthorpe and Lockwood, 1963, pp.146-7; Bain et al, 1973, pp.110-19).

There is self-selection and only certain types of people are willing to take supervisory or union posts. Those who aspire towards a certain role tend to adopt attitudes similar to occupants of that role. This is anticipatory socialization (Selznick and Vollmer, 1962, p.105; Tunstall, 1962, pp.126, 181-3; Seidman et al, 1958, p.258). Once in the new post, role adaptation takes place. One mechanism is a process of socialization leading to conformity to a changed reference group (cf. Hyman, 1971, p.198; Allen, 1954, pp.192-5; Eldridge, 1968, pp.73-4). The other mechanism involves a self-consistency principle. If the role change involves changes in behaviour then, in accordance with the theory of cognitive dissonance, originally held attitudes which are inconsistent with the new behaviour are likely to change to conform to the new situation (Festinger, 1957).

Thus there is evidence that trade union officials who become personnel officers are more loyal to management's interests than career personnel specialists (Anthony and Crichton, 1969, p.239). Lieberman (1956), in describing a "natural experiment", reports that the attitudes of operatives towards management became markedly more favourable when they were promoted to foremen, and reverted on demotion. The link between favourability to the union and obtaining and relinquishing shop stewards' posts was weaker but still noticeable. However, when a role change does not involve behaviour which is inconsistent with a previously held attitude then there is less tendency for that attitude to change. For example on judgements of the "merited prestige" of various occupations, Turner concludes that "mobile individuals tend to deviate from the attitudes typical of their (present) occupational class in the direction of conformity to attitudes of their class origin" (1958, p.313).

The attitudes which are particularly important to an understanding of the amount and form of conflict exhibited are those towards the fairness of the existing general industrial relations system and related to this towards the fairness of their current employer. The broad contrast is between a pluralistic and a radical frame of reference (Fox, 1966, pp.3-4; Fox, 1973, pp.192-231). On the latter frame the rules of the industrial relations system are viewed as illegitimate and there is "an ideological motivation that precludes resolution (of conflict) short of capitulation" (Barbash, 1964, p.70).

Presentation of hypotheses

The review of the literature coupled with pilot interviews on site suggests that the following factors which vary between firms on the Merseyside large site may explain differences in the amount and form of conflict exhibited in these firms.

Size of Firm and Conflict

H1.1 Firms with a higher average number of manual employees are likely to experience proportionally higher levels of both organized and unorganized conflict than other firms.

Age of manual employees and Conflict

H1.2 Firms with a higher median age of manual employees are likely to experience lower voluntary labour turnover and voluntary absenteeism, and a higher accident frequency than other firms.

Cohesion of labour force and Conflict

The ability of employees in a firm to react collectively rather than individually to situations which they regard as unsatisfactory depends on their degree of cohesion.

H1.3 Firms in which the manual labour force contains a lower proportion of skilled employees, or is less occupationally uniform, or is less homogeneous in terms of geographical origins, are likely to experience higher levels of unorganized conflict and lower levels of organized conflict than other firms.

Security of employment and Conflict

H1.4 Firms which have been a shorter time on site, or in which the manager has been a shorter time in post, or which have a shorter median length of service for manual employees, or in which the manual employees or supervisors perceive their security of employment to be low, are likely to experience higher levels of both organized and unorganized conflict than other firms.

Fairness and Conflict

On the manual employee side, shop stewards are the key initiators of industrial action, and it is their perceptions of fairness which may provide a reason for industrial action.

H1.5 Firms in which the shop stewards have less favourable opinions on the fairness of their firm to its manual employees or who view the existing general industrial relations system as unfair are more likely to experience higher levels of organized conflict than other firms.

Flexibility of management and Conflict

A more flexible attitude by management to the use of disputes procedure may encourage fractional bargaining and channel any discontent which exists into organized rather than unorganized conflict.

- H1.6 Firms in which the manager feels there are circumstances in which manual employees are justified in taking direct industrial action in breach of grievance procedure are likely to experience lower levels of unorganized conflict and higher levels of organized conflict than other firms.

Influences on attitudes to unconstitutional industrial action

Shop stewards are likely to favour the use of unconstitutional industrial action when they see it as effective, and managers are more likely to condone its use when they trust the stewards in their firm.

- H1.7 Shop stewards who have taken direct industrial action in breach of grievance procedure are more likely to feel that it is justified to break procedure than are other stewards.

- H1.8 Managers who have a favourable opinion of the shop stewards in their firm are more likely to feel there are circumstances in which manual employees are justified in taking direct industrial action in breach of procedure.

Influences on attitudes to current firm

- H1.9 Manual employees and supervisors who have shorter lengths of service with their current employer or who perceive their security of employment to be low are likely to have

less favourable opinions on the fairness of their current firm to its manual employees than are other manual employees and supervisors.

H1.10 Older manual employees are likely to have more favourable opinions on the fairness of their current firm than are other manual employees.

H1.11 Manual employees who view the existing general industrial relations system as unfair are likely to have less favourable opinions on the fairness of their current firm than are other manual employees.

Influences on attitudes to general industrial relations system

Current and past experience of security of employment is one factor likely to influence attitudes in this area. A second relevant factor is ambitions for or experience of other roles. This is likely both to be influenced by and to influence attitudes to the fairness of the general industrial relations system. Manual workers with promotion ambitions are likely to differ in attitudes from those without such ambitions. There is self-selection and those who aspire to or achieve role change are likely to hold attitudes intermediate between those typically held by non-mobile members of their original role and of the role aspired to or achieved. Demotion is usually involuntary and experience of it is likely to influence attitudes to the fairness of the general industrial relations system.

H1.12 Manual employees and supervisors who perceive their current security of employment to be low, or who have experienced a greater amount of unemployment, are more likely to view the existing general industrial relations system as unfair than are other manual employees and supervisors.

H1.13 Operatives and shop stewards with ambitions to become supervisors are more likely to view the existing general industrial relations system as fair than are other operatives or shop stewards.

H1.14 Supervisors and managers who have been shop stewards are less likely to view the existing industrial relations system as fair than are other supervisors and managers.

H1.15 Operatives and shop stewards who have been supervisors are more likely to view the existing industrial relations system as unfair than are current supervisors.

Influences on attitudes to supervision

H1.16 Supervisors who have shorter lengths of service, or who perceive their security of employment to be low, or who have less favourable opinions on the work performance of the manual employees, are likely to be less satisfied with their management's handling of its manual employees than are other supervisors.

H1.17 Supervisors who perceive their security of employment to be low are likely to place more emphasis on their popularity with the manual employees than are other supervisors.

H1.18 Managers who are more satisfied with the productivity of their manual employees, or who are in firms in which the majority of supervisors are transferred onto site, or in which supervisors perceive their security of employment to be high, are likely to be more satisfied with the loyalty and effectiveness of their supervisors than are other managers.

UNION INVOLVEMENT IN RULE MAKING

Review of the literature

The aim is to explain the effects of factors which vary between firms on the Merseyside large site on the amount of union involvement in the making and administering of rules in the labour recruitment/selection, utilisation and termination areas; and the link with conflict. The actual amount of union involvement in any firm is likely to depend on two main interrelated factors. These are the amount of union involvement favoured by the various parties and their relative abilities to achieve their goals (cf. Poole, 1975, p.37). Thus Derber et al have identified four clusters of variables relating the extent of union influence to the satisfaction of the parties (1957, p.68; see also 1960, pp.25-9; 1965, p.29).

There is the following evidence, relevant to the aims of this study, on the favoured amount of union involvement. Demands for participation in decision making are usually greater among skilled than among unskilled workers, and greater among shop stewards than rank and file members (Clarke et al, 1972, p.18; McCarthy and Parker, 1968, p.83; Goodman and Whittingham, 1969, p.194; Parker, 1974, pp.27-8; Goldthorpe et al, 1968, p.109). An important explanatory factor here is the link between an extension of union involvement and an increase in strategic bargaining power, and it is on these grounds that managements may resist it (Marsh and McCarthy, 1968, p.4; Flanders, 1970, pp.112, 203; Haber and Levinson, 1956, p.156).

Perceptions of fairness influence the favoured amount of union involvement. On the fairness of their current firm, employees may favour increased union involvement in order to ensure their fair treatment, while managements may argue that this is unnecessary and resist it on grounds of efficiency (Lupton, 1963, p.39; Beynon, 1973, p.129; Flanders, 1970, p.233; Eldridge, 1968, pp.207-11). On the fairness of the general industrial relations system, management may claim legitimacy for the exercise of what they call their prerogative on the grounds that only they can represent and co-ordinate the interests of the total enterprise (Chamberlain, 1963, p.189; Perline, 1971, p.46; Prasow and Peters, 1967, pp.5, 12; Bergen, 1940, p.275). This legitimacy is challenged by those who argue that the interest of the present ruling group are themselves merely a partial interest (Dahrendorf, 1959, pp.252-3; Fox, 1973, pp.206-11; Fox, 1974, p.143).

There may be a link between ambitions for or experience of other roles and favoured amount of union involvement. As discussed in the review of the literature on conflict, self-selection and role adaptation will play a part. Those who aspire to or have experienced role change are likely to differ from other members of their current role. However, since role change between a steward's post and a supervisory or managerial post is likely to call for different behaviours in the area of union involvement, the current role will dominate attitudes in comparison with members of those roles aspired to or previously occupied.

There may be limits to the amount of involvement in rule making and administration favoured by unions and work groups. While an extension may be viewed as the best way of protecting members' interests (TUC, 1973; Chandler, 1964, pp.278-9; McCarthy and Ellis, 1973, p.4; Chamberlain, 1948, pp.89-93), it may involve a loss of independence and an involvement in decisions which are against the interests of some of their members (Flanders, 1964, p.235; Clegg, 1960; Strauss, 1956, pp.533-4; Chalmers et al, 1954b, p.137).

The favoured amount of union involvement is likely to be influenced by perceptions of the actual extent of union involvement existing in any situation since this will affect expectations (cf. Poole, 1975, pp.90-2). Management in particular tend to adapt to greater union involvement, so that the mutual satisfaction of the parties is often higher in situations of greater union involvement than in ones of lower involvement (Chalmers et al, 1954b, pp.197-203, 319-25; Derber et al, 1961, pp. 89-92, 100).

The second main factor influencing the actual amount of union involvement in any firm is the relative abilities of the parties to achieve their goals in this area. Relevant factors have been discussed in the review of the literature on conflict. They include the cohesion of the labour force and the technological and organizational characteristics of the work situation. Industrial action is often used as a means for establishing and consolidating union involvement (e.g. Goodman and Whittingham, 1969, pp.171, 210). As Hyman has remarked of the engineering industry, "it is the readiness of union members to take action (in breach of procedure) in each situation which sets the practical limits of managerial prerogatives" (1972a, p.84).

Once a higher degree of union involvement has been established, it might in some circumstances be conducive to a decrease in both organized and unorganized conflict (e.g. McCarthy and Ellis, 1973, Chap. 6). Dubin (1973) has put forward a theory that the greater the number of sources of attachment to work, i.e. the greater union involvement, the less will be union militancy. However this may just be a reflection of certain union or management ideologies rather than an indication of a causal relationship.

Presentation of Hypotheses

The review of the literature coupled with pilot interviews on site suggests that the following factors which vary between firms on the Merseyside large site may be of help in understanding differences in the amount of union involvement in the making and administering of rules in the labour recruitment/selection, utilisation and termination areas.

Security of Employment and Favoured Amount of Union Involvement

- H2.1 Manual employees who perceive their security of employment to be low, or who have shorter lengths of service, or who have experienced a greater amount of unemployment are likely to favour a greater amount of union involvement than other manual employees.

Fairness and Favoured Amount of Union Involvement

- H2.2 Manual employees who have less favourable opinions on the fairness of their firm or who view the existing general industrial relations system as unfair are likely to favour a greater amount of union involvement than other manual employees.

Role Change and Favoured Amount of Union Involvement

The first three hypotheses below are based on self-selection and the last two on role adaption.

- H2.3 Operatives with ambitions to become shop stewards or who have been shop stewards are likely to favour a greater amount of union involvement than other operatives.
- H2.4 Shop stewards with ambitions to become supervisors or who have been supervisors are likely to favour a lesser amount of union involvement than other shop stewards.
- H2.5 Supervisors and managers who have been shop stewards are likely to favour a greater amount of union involvement than other supervisors and managers.

H2.6 Supervisors and managers who have been shop stewards are likely to favour a lesser amount of union involvement than current shop stewards.

H2.7 Shop stewards who have been supervisors or with ambitions to become supervisors are likely to favour a greater amount of union involvement than current supervisors.

Existing Amount of Union Involvement and Favoured Amount of Union Involvement

H2.8 Operatives, shop stewards, supervisors and managers in firms where the existing amount of union involvement is high are likely to favour a greater amount of union involvement than employees in other firms.

Favoured Amount of Union Involvement, Conflict, and Achieved Amount of Union Involvement

A wide gap in favoured amount of union involvement between manager and shop steward in any firm is likely to be an additional cause of conflict.

On the link between the actual amount of union involvement and amount of conflict, the predominantly short term nature of employment in construction means that the emphasis is likely to be on the establishment of union involvement through organized conflict. Any feedback from a higher involvement situation to perceptions of fairness and levels of conflict is unlikely to have been reached.

H2.9 Firms in which the disparity between the amount of union involvement favoured by the manager and the shop steward is great are likely to experience higher levels of organized or unorganized conflict than other firms.

H2.10 Firms which experience higher levels of organized conflict are likely to have a greater amount of union involvement than other firms.

METHODOLOGY

INTRODUCTION

This chapter begins by outlining the overall conduct of the study with particular emphasis on the problems associated with trying at the same time to solve a client's practical problems and make an academic contribution to knowledge. The two main methods of data collection are then described. For interviewing, there is a discussion on the style adopted and the design of the sample. For records, the sources of data and the definition and operationalization of measures are discussed.

The chapter concludes with a section on data preparation - including the design of a coding frame - and data analysis using non-parametric statistical tests and a simple scanning technique for typal analysis.

OVERALL CONDUCT OF THE STUDY

This thesis has its origins in a project initiated and financially supported by the client company on the Merseyside large site. The problem they presented was not clearly defined, but hinged around a wish for a better understanding of industrial relations among contractors on their refinery site - and as part of this a better understanding of the attitudes and behaviours of construction employees. The hope was that such understanding would provide a basis for formulating policies and procedures to "improve" contractors' industrial

relations. At the same time the researcher wished to use the field-work opportunity presented to make an academic contribution to knowledge. Several writers have clearly discussed the difficulties of this dual role (e.g. Rapoport, 1970; Foster, 1971; Gill, 1975).

Three main pressures arising out of this dual role were anticipated in this study. One was the question of independence and confidentiality. Meaningful data collection could only be achieved with the consent and support of contractors' managements, their employees, and the trade unions. This would require the giving and the acceptance of certain guarantees of anonymity and in some cases confidentiality of data. Furthermore there was the key question of the feedback of findings and the use to which these would be put. It was felt to be necessary that an agreement be made with the client and a guarantee offered to all other parties that the same written reports of findings would be given to all parties. Each would be free to make what use they wanted of the data. In addition the client company, as sponsor of the research, would receive recommendations intended to help it in pursuit of its objectives.

A second and related area concerned the practicability of acting as a change agent in this situation. Collaboration between researcher and practitioner in defining the goals of a piece of research and in the diagnosis and evaluation of the data is a help to action being taken on the basis of the project (e.g. Havelock, 1969). In this study such collaboration with the client alone would be at the cost of loss of neutrality, while collaboration also with contractors and unions, even if permitted by the client, would seem to be impracticable in this high

conflict and low trust situation. Furthermore, the temporary nature of construction, with the client the only permanent element on site, adds greatly to the problem of using a study like this as a means for bringing about change. Additionally it must be noted that practitioner involvement in the research would appear to diminish the opportunity for pursuing theoretical goals.

The third pressure was that of time. The client company was eager that empirical findings be presented quickly. Additional pressure was in practice brought about by the client's curtailment of its expansion programme resulting in an earlier than expected run-down in the construction programme. This accentuated the practical problem of theoretical understanding developing during the course of empirical investigation but it not being possible to alter research design in mid-stream.

At the start of the study, a problem was to gain the trust of the client sufficiently to permit independent access to the other parties on site in order to establish contacts and get a feel of the situation. Certainly a number of middle and senior managers in the client company doubted the wisdom of embarking on the project at all and feared that it would in itself cause industrial relations problems. After several weeks of fruitless discussion, it was decided to precipitate the situation by directly contacting contractors' senior managers on site and discussing the proposed project with them. Fortunately they were reasonably supportive. The positive feedback helped improve researcher-client relations, and after a further few weeks permission to contact union officers and shop stewards was won. Also it was at this stage that client agreement in principle on the feedback of findings to all

parties, and an undertaking to 'encourage' contractors to release men for interview during working hours and on full-pay and average bonus, were secured.

In contacting the unions, the first step was to visit each local full-time officer with members on site. An agreement in principle to co-operate with the research was won. The next step was to win the support of the site convenor and the 'super six'. Once this was achieved, contact was made with the senior steward in each firm on site, and the project discussed in detail. This completed the successful negotiation of access.

As a preliminary to the design of the parallel academic and practical studies, initial data on industrial relations on the site was collected from three sources. One was a series of pilot interviews with contractors' operatives, shop stewards, supervisors and managers. A second was a series of interviews with client engineers and industrial relations specialists. The third was a preliminary scan of client records. This work on site was complemented by a literature search.

The freedom of action gained over this initial period of the project served to establish the independence of the researcher in the eyes of all parties. However, another result was that the client ascribed an "expert" role to the researcher, with a consequent withdrawal from any close involvement in the conduct of the study other than to pressure on its time scale.

Throughout the fieldwork period, which extended over eighteen months, care was taken to maintain informal contacts with all parties. In addition brief stage papers were prepared and distributed at regular

intervals. Nevertheless the research was characterised by a lack of close involvement by any party on site in its direction and design. As will be discussed in Chapter 9, this may be a factor influencing the extent of action resulting from the final report presented to all parties some two and a quarter years after the start of the project.

DATA COLLECTION

Interviews

Interviewing was chosen in preference to written questionnaires as the method of collecting information on contractors' employees biographical characteristics and attitudes to aspects of their work situation. There are several reasons for this. Interviewing permits the use of follow-up points for clarification. It allows more 'sensitive' topics to be broached. Through the use of some open questions it can lead the researcher into relevant areas which might otherwise be missed. It ensures a higher response rate. It is more appropriate for a population in which a minority are likely to experience difficulty in expressing their views in writing. Above all an interviewing programme allows the researcher out onto jobs and into the mess huts and offices. Here informal contacts and observation can add greatly to the richness of the data collected and allow some check on possible disparities between verbalized and actual behaviours.

The interviewing style adopted was an informal one with a willingness to discuss the project and to give feedback, and this helped to build a trusting atmosphere (cf. Burns and Stalker, 1966, pp.13-14). In practice this approach was found to be compatible with a stance of independence and objectivity (contrast with Jaques, 1951, pp.13-16).

However, care had to be taken to avoid being treated by interviewees "as an emissary who would communicate their misgivings and problems to the 'higher-ups'" (Beynon and Blackburn, 1972, p.56).

Interviews were conducted in private, with between half an hour and one hour being spent with each individual. Interview schedules for operatives, shop stewards, supervisors and managers are presented in Appendix 1. The more sensitive areas were raised later in the interview by which time some rapport had usually been established.

In designing the interview sample, the first need was to define the population from which the sample was to be drawn. The study was restricted to those twenty six contracting companies which were on the Merseyside large site at the commencement of the fieldwork period and had a reasonable expectation of remaining on site for at least the next six months. There were ten companies in the mechanical trade group, four in the thermal insulation trade group, five in the electrical trade group, four in the civil trade group and three in the scaffolding trade group. The total population was defined as the employees of these companies on site who were engaged in the carrying out, supervision or direction of construction work. Thus clerical and technical office staff, storemen, tea-boys, and full-time drivers were excluded.

An upper limit to overall sample size of around 300 was set by the time constraints on the project and the willingness of the contractors to release men for interviewing. The aim in designing the sample was to distribute the total number of interviews possible so as to best satisfy two criteria. One was that the measures from the sample should

be generalizable to the population within acceptable limits of accuracy. The other was that there should be a sufficient number of cases in each category of interest to permit the testing of hypothesised relationships between variables. The solution arrived at was necessarily something of a compromise.

The basic sub-groupings of the population are by role, i.e. operative, shop steward, supervisor, manager; by firm, and by trade group. For managers, the necessity to interview the senior manager in each firm means in effect that the population is seen. In addition it seemed desirable that the industrial relations officer be interviewed in those two firms which employed one on site (cf. NEDO, 1970a, p.85). For the testing of hypotheses 1.4, 1.6, and 2.9, management attitudes in these two firms are taken as those of the senior manager.

For the other roles, the principle was adopted of choosing the sample size so as to keep a constant standard error when generalising to the population. (The formula used for standard error is that for a simple random sample from a finite population presented in Appendix 3.) The overall limitations on sample size meant that the smallest sub-groupings of the total population which could be sampled were roles within trade groups. A consequence of this is that insufficient operatives and supervisors are sampled to allow meaningful generalisation of data to the level of the firm. However, the relatively small population of shop stewards necessitates a higher sampling ratio and permits meaningful generalisation to the level of the firm. For testing hypotheses 1.5 and 2.9 the viewpoint of the senior steward in each firm is taken.

In applying this sample design there were two practical difficulties. One was that the sampling ratio derived for thermal insulation and scaffolding operatives proved unacceptably high and had to be reduced slightly. The other arose out of fluctuations in the size of the labour force. In originally designing the sample a rough working figure of the projected population at the middle of the proposed interviewing programme was used. The sample size calculated for each sub-group was divided proportionally between firms on the basis of projected population. In those firms where large fluctuations in the labour force were projected, the drawing of the sample was delayed by a month or two.

When drawing the sample in each firm, names of individuals were selected using random number tables and the true population in each sub-group at that date was also taken. The population to which the findings are generalised is the sum of these separate populations of each firm. As a practical point, a few extra names were chosen at the same time to act as substitutes for possible refusals, absentees or leavers.

The distribution of the sample actually interviewed, and the population from which it was drawn, is shown in Table 4.1.

The interviewing programme spanned some five months. Interviews in each firm were, as far as possible, spaced out over this time period in an attempt to even out short term fluctuations in opinions due to specific incidents. During the whole interviewing programme there were only two refusals.

Table 4.1

Distribution of the Population and of the Interview SampleA) Population

Trade Group	Role				All
	Operative	Shop Steward	Supervisor	Manager	
Mechanical	858	31	97	12	998
Thermal Insulation	59	5	5	4	73
Electrical	100	4	11	5	120
Civil	458	9	33	4	504
Scaffolding	55	6	8	3	72
All	1530	55	154	28	1767

B) Sample

Trade Group	Role				All
	Operative	Shop Steward	Supervisor	Manager	
Mechanical	50	22	35	12	119
Thermal Insulation	14	4	4	4	26
Electrical	28	4	9	5	46
Civil	43	9	17	4	73
Scaffolding	15	5	7	3	30
All	150	44	72	28	294

Records

Contractors' records were used for the collection of data on the structural characteristics of firms - time on site, number of employees on site, age and length of service distribution of labour force, skill composition of labour force and its occupational uniformity, geographical origins of labour force - and on their behaviours on the measures of

strikes, voluntary absenteeism and voluntary labour turnover. These records were often not as comprehensive as might have been wished, and in most cases information had to be laboriously extracted from time books (cf. Phelps Brown Report, 1968, p.97).

Client records were a source for general historical information on the site, for the various collective agreements operating on site, and for measures of accidents. The records of the firm of quantity surveyors employed by the client to administer the audited bonus schemes provided useful data on the scheme themselves and on levels of bonus earnings in each contracting firm. The regional office of the Department of Employment were a source for data on the extent and duration of unemployment among construction employees in the Merseyside area. Further relevant background information on the organisation and operation of trade unions with members on site was obtained from their headquarters.

In operationalising measures of the structural characteristics of firms and their manifestations of organized and unorganized conflict, the question of time period has to be decided. The hypotheses presented in Chapter 3 link these measures with data collected by interviewing on attitudes and biographical characteristics of the various actors and on the extent of union involvement existing in each firm. There is, therefore, a need for the time periods to which data from the various sources refers to be compatible.

The practical compromise adopted was to plan to take an average value of structural characteristics of firms and measures of conflict for a two year period ending three months after the termination of the

interviewing programme. This was felt to be long enough to even out minor fluctuations in the measures but short enough to be relevant to attitudes reflecting the circumstances at the time of collection and of the recent past.

The only structural characteristic of firms requiring any explanation is occupational uniformity. The measure used was the proportion of manual employees in the largest single skilled or semi-skilled occupation in a firm.

Strikes are used as the measure of organized conflict, since they are the most common form of collective industrial action and the most easily quantified. A distinction was made between strikes originating in a single firm and those that are trade group or site wide. These were termed, respectively, domestic and non-domestic strikes. Both types were measured in terms of working days lost per thousand employees annually and the number of separate (i.e. discontinuous) stoppages per thousand employees annually.

The base labour force used in calculating strike duration and frequency was the average number of manual employees engaged in site construction work in each firm. In recording strikes no minimum cut off size in terms of number of employees involved, the length of the strike, or the number of working days lost, was used. Token stoppages in protest at the Industrial Relations Act 1971 were included in the measures of non-domestic strikes. These criteria may be contrasted with those used by the Department of Employment on large sites. By including all employees, using the peak labour force, having minimum cut off points, and considering only disputes concerned with terms and conditions of employment, the Department underestimates strike activity.

In the Merseyside study firms elec.1 and scaff.1 were only on site for the last ten months of the research period. The calculated annual strike measures for these firms therefore give greater emphasis to their early experiences than is the case for other contractors.

Four measures of unorganized conflict were adopted in the case study. These were voluntary absenteeism, voluntary labour turnover, productivity and accidents.

Voluntary absenteeism was defined as absence from work without a 'valid' reason such as sickness, accident, holiday, strike, or any situation in which the employer grants leave to the employee. The distinction from involuntary absenteeism is theoretically important but difficult to make in practice (cf. Ingham, 1970, p.20; Jones, 1971). Problems such as psychosomatic illness and absence which even though supported by doctors' certificates is not medically justified cloud the picture. Rather than trying to distinguish between voluntary and involuntary absenteeism some researchers have favoured the use of an absence frequency rate as a measure of unorganized conflict (e.g. Scott et al, 1963, pp.46-9). However, this is less satisfactory and in this study an attempt was made to identify voluntary absenteeism.

Voluntary absenteeism was expressed as an annual percentage of the total potential number of working days by manual employees in each firm. The minimum absence counted was half a day. The manual labour force at the middle of each month was used as the basis for calculating the potential number of working days. Weaknesses in contractors' records meant that in eleven firms it was not possible to collect data covering

the planned two year period. For five firms the period had to be reduced to one year, for a further five it was restricted to the five month span of the interviewing programme, and for firm elec.1 it was not possible to collect any absence data.

Voluntary labour turnover was defined as the situation when an employee resigns from his employer. This excludes dismissal or redundancy.

The distinction between voluntary and involuntary labour turnover is not always clear in practice and the two are related. Nevertheless an attempt was made in the study to identify voluntary labour turnover and express it as a percentage of the average manual labour force leaving annually. Again shortcomings in contractors' records meant that it was not possible in all cases to obtain measures over the planned two year period. In five firms data was only available over one year, and in one mechanical firm, one electrical firm and the three scaffolding firms no figures at all were available.

Productivity and accidents are most meaningfully used as measures of unorganized conflict in making comparisons between firms engaged in similar kinds of work. Cross trade group comparisons are restricted to the relative performance of firms compared to others within their own trade group. In using productivity and accidents as measures of conflict, it needs to be remembered that the technical characteristics of particular jobs and managerial behaviours in aspects such as production planning and safety precautions also influence the performance of firms in these areas.

The best available measures of the relative productivity of firms within each of the mechanical, thermal insulation and electrical trade groups were the common trade group wide audited bonus schemes. No suitable measures of the relative productivities of firms within the civil and scaffolding trade groups were available. Within each of the first three trade groups, firms were ranked by their bonus level at each of ten dates. These dates were spread over a two year period for the first two trade groups, and over a fifteen month period for the electrical trade group since its bonus scheme was only introduced then. The median ranking of each firm was then found and used to place it in a high, medium or low productivity rating within its trade group.

Records on the accident frequency rate in each firm, i.e. the number of lost time accidents per million man hours worked, were available from the client's safety officer. Firms were ranked within trade groups and dichotomised into those coming above the median and those at or below the median.

DATA PREPARATION AND ANALYSIS

The first task in preparing the data for analysis was to standardise measures of individuals' current lengths of service and ages and of firms' lengths of time on site to a common date. This was chosen as the mid point of the interviewing programme.

The next stage was the designing of a coding frame in order that the mass of information collected by the semi-structured interviews might be converted into a more readily usable form. Categories were devised

to cover the main responses offered to each item on the interview schedules with the aim of reflecting the richness of the raw data while avoiding treating each individual's responses as unique. The coding frame devised is presented in Appendix 2. It was used to code each of the 294 completed interview records.

The coded data was then edited. Options which represented the view of too few individuals within a role to be generalizable with sufficient accuracy to the trade group population were, where it was meaningful to do so, merged with other options on that item for that role. The editing criteria used and method of application are described in Appendix 3. Application of this resulted in the removal of about one quarter of the options from the original coding frame.

As a preliminary to testing the hypotheses presented in Chapter 3, some items of the coded and edited interview data were grouped for the construction of indices. The selection of items for each of the six indices, the scoring of options, and the choice of cut-off points to dichotomise the measure on each index are detailed in Appendix 4.

The final data preparation task, also a necessary preliminary to hypothesis testing, was the operationalisation of a measure of the existing amount of union involvement in each firm. This is described in Appendix 5.

Fairly simple methods of data analysis were adopted in testing differences between samples on measures, in testing the hypothesised bivariate relationships, and in identifying types of individuals within roles and of firms within trade groups. This was because of

of the wish to avoid the use of any analytical tool more powerful than the data justified. The level of measurement was seldom above an ordinal scale, the sample size was fairly small, and the study was cross-sectional rather than longitudinal. These factors militated against the use of sophisticated causal models (e.g. Hilgendorf et al, 1970; Mapes, 1970; Blalock, 1972) or clustering techniques (e.g. Everitt, 1974).

The non-parametric statistical tests detailed in Appendix 6 were used for testing differences and relationships. Throughout the text the use of the word 'significant' when discussing relationships between variables or differences between samples is confined to situations where these are statistically significant at at least the 95% level of significance. Of course, for relationships, all that this shows is an association between variables. It cannot, by itself, indicate causation. In testing intra trade group relationships at the level of the firm, where the number of cases available is small, findings below the 95% level of significance but at or above the 90% level of significance are referred to as an 'indication' of a relationship.

The likelihood of a relationship being identified as a statistically significant finding is influenced by the total number of cases available in the relationship being tested. Thus, for example, significant relationships are more likely to be identified over all trade groups than within a single trade group where there are fewer cases. In interpreting findings the factors which are constant within trade groups but vary between trade groups need to be borne in mind. Finally, as a point of detail, in testing H1.6 firms in

which there had been a recent change of manager prior to the interviewing programme were excluded from the sample.

For the typal analysis, a simple scanning technique was developed. The method used is detailed in Appendix 7. The aim is to identify individuals within roles sharing a range of common attitudes, and firms within trade groups sharing a range of common amounts of conflict and union involvement in rule making. The distinguishing characteristics of types in terms of the biographical characteristics of individuals and aspects of their current work situation, and in terms of structural and attitudinal characteristics of firms can then be identified. The method is a modification of McQuitty's pattern analysis (Chalmers et al, 1953b, Chapter 14; McQuitty, 1960; Derber et al, 1960, pp.58-68). As a preliminary to applying the procedure to firms, the findings on the measures of strikes, voluntary absenteeism and voluntary labour turnover were trichotomised.

DESCRIPTIVE FINDINGS: BIOGRAPHICAL CHARACTERISTICS OF
CONTRACTORS' EMPLOYEES ON THE MERSEYSIDE LARGE SITE

INTRODUCTION

This chapter presents descriptive findings from the case study on the Merseyside large site on the employment experience, promotion experience and trade union activity experience of contractors' operatives, shop stewards, supervisors and managers. Differences between roles and trade groups on the various characteristics are examined, and comparative findings from other studies are introduced where appropriate.

For three further biographical characteristics - age, geographical origins, skill level - population measures are available and will be presented, aggregated by firm, in Chapter 7. Nevertheless, any significant differences by role or trade group on these characteristics within the interview sample are of interest, and these are discussed in a brief final section of this chapter.

EMPLOYMENT EXPERIENCE

The lengths of service of operatives, shop stewards and supervisors with their current company (standardised to the mid-point of the interviewing programme), with the two companies preceding this, and their longest period of continuous employment with any one company,

are presented in Table 5.1. Managers' continuous lengths of service with their current company, and the amount of time spent on the Merseyside large site as a manager and in total are presented in Table 5.2.

The labour stability of manual employees in mechanical and electrical contracting companies is similar to that reported for other large sites. For these groups, the NEDO survey found that 48% of craftsmen had under one years service and only 18% had over five years service (1970a, pp.55, 78-80). On the Alcan site, the respective figures were 57% and 14% (CIR No. 29, 1972, p.55). The labour stability of the civil operatives is much greater than generally found in building and civil engineering (cf. Phelps Brown Report, 1968, pp.54-8; Thomas, 1968, p.6; Samuel, 1969, pp.7-8; Shenfield, 1968, pp.6-7). Indeed 70% of civil operatives on the Merseyside site stated that their longest period of continuous employment was with their current employer.

In making inter-trade group comparisons, the most noticeable features are the relatively high stability of employment in the civil trade group, the low stability in the mechanical group and the bimodal distributions for electrical operatives and scaffolding shop stewards. The length of service distribution of civil operatives is significantly different from that of mechanical, electrical and scaffolding operatives. For shop stewards, the civil group differs significantly from both the mechanical and thermal groups, and for supervisors from the mechanical, electrical and scaffolding groups. In addition, thermal insulation supervisors show significantly longer service than mechanical supervisors, of whom 37% have under one years service with their current company. For managers, the mechanical trade group is the least stable. One half

Table 5.1

Operatives - Stability of Employment

(a) Time with current firm

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %
Mechanical	(50)	14	42	30	7	7	7
Thermal Insulation	(14)	21	-	29	7	7	28
Electrical	(28)	21	25	11	32	11	-
Civil	(43)	7	-	30	19	26	20
Scaffolding	(15)	20	7	53	7	-	-
All	(150)	10%	20%	33%	15%	12%	10%

(b) Time with employer before firm (a)

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	No previous employer %
Mechanical	(50)	8	36	36	4	2	2	12
Thermal Insulation	(14)	7	21	29	-	7	-	36
Electrical	(28)	7	11	21	11	11	7	32
Civil	(43)	2	14	19	9	2	12	42
Scaffolding	(15)	-	20	13	7	13	7	40
All	(150)	5%	22%	25%	7%	5%	6%	29%

7 See Appendix 3

Table 5.1 (Cont.)

Operatives - Stability of Employment (Cont.)

(c) Time with employer before firm (b)

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	No previous employer %
Mechanical	(50)	14	34	24	10	6	2	10
Thermal Insulation	(14)	14	21	7	-	7	14	36
Electrical	(28)	4	18	25	4	7	4	39
Civil	(43)	2	23	23	5	2	2	42
Scaffolding	(15)	7	20	40	-	-	-	33
All	(150)	8%	25%	24%	5%	5%	3%	29%

(d) Longest time with any employer

Trade Group	No. of Respondents	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	Is this current employer?	
							Yes %	No %
Mechanical	(50)	8	42	22	14	14	22	78
Thermal Insulation	(14)	-	14	21	21	43	43	57
Electrical	(28)	4	14	39	29	11	46	54
Civil	(43)	-	2	19	26	53	70	30
Scaffolding	(15)	-	47	13	27	13	40	60
All	(150)	3%	23%	23%	22%	27%	44%	56%

Table 5.1 (Cont.)

Shop Stewards - Stability of Employment

(a) Time with current firm

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %
Mechanical	(22)	-	41	27	14	7	14
Thermal Insulation	(4)	-	-	100	-	-	-
Electrical	(4)	25	-	50	25	-	-
Civil	(9)	-	-	22	11	67	-
Scaffolding	(5)	20	20	-	-	60	-
All	(44)	5%	23%	32%	11%	23%	7%

(b) Time with employer before firm (a)

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	No previous employer %
Mechanical	(22)	9	46	27	-	-	-	18
Thermal Insulation	(4)	25	-	25	25	-	-	25
Electrical	(4)	-	25	50	-	-	-	25
Civil	(9)	11	-	11	11	22	-	45
Scaffolding	(5)	-	-	20	-	-	20	60
All	(44)	9%	25%	25%	5%	5%	2%	30%

7 See Appendix 3

Table 5.1 (Cont.)

Shop Stewards - Stability of Employment (Cont.)

(c) Time with employer before firm (b)

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	No previous employer %
Mechanical	(22)	9	50	23	9	-	-	9
Thermal Insulation	(4)	-	25	75	-	-	-	-
Electrical	(4)	-	25	50	-	25	-	-
Civil	(9)	-	11	11	-	11	11	56
Scaffolding	(5)	-	-	20	20	-	-	60
All	(44)	5%	32%	27%	7%	5%	2%	23%

(d) Longest time with any employer

Trade Group	No. of Respondents	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	Is this current employer?	
							Yes %	No %
Mechanical	(22)	7	41	23	14	18	50	50
Thermal Insulation	(4)	-	50	25	25	-	25	75
Electrical	(4)	-	50	25	25	-	25	75
Civil	(9)	-	11	-	56	33	44	56
Scaffolding	(5)	-	20	-	60	20	60	40
All	(44)	2%	34%	16%	30%	18%	45%	55%

/ See Appendix 3

Table 5.1 (Cont.)

Supervisors - Stability of Employment

(a) Time with current firm

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years up to 20 years %	20 years and over %
Mechanical	(35)	11	26	40	6	11	7	7
Thermal Insulation	(4)	-	-	-	25	-	50	25
Electrical	(9)	11	11	22	33	11	11	-
Civil	(17)	-	-	-	7	29	41	24
Scaffolding	(7)	-	-	29	29	-	29	14
All	(72)	7%	14%	25%	13%	14%	18%	10%

(b) Time with employer before firm (a)

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	No previous employer %
Mechanical	(35)	6	26	23	6	-	-	40
Thermal Insulation	(4)	-	-	-	25	-	-	75
Electrical	(9)	-	22	22	-	-	-	56
Civil	(17)	-	6	6	6	12	-	71
Scaffolding	(7)	-	-	14	-	14	-	71
All	(72)	3%	17%	17%	6%	4%	-	54%

7 See Appendix 3

Table 5.1.1 (Cont.)

Supervisors - Stability of Employment (Cont.)

(c) Time with employer before firm (b)

Trade Group	No. of Respondents	3 months and under %	4 months up to 1 year %	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years and over %	No previous employer %
Mechanical	(35)	3	20	40	6	9	6	17
Thermal Insulation	(4)	-	25	50	-	-	-	25
Electrical	(9)	-	22	33	-	-	-	44
Civil	(17)	-	6	18	6	-	-	71
Scaffolding	(7)	-	-	-	14	71	-	14
All	(72)	1%	15%	31%	6%	11%	3%	33%

(d) Longest time with any employer

Trade Group	No. of Respondents	1 year up to 3 years %	3 years up to 5 years %	5 years up to 10 years %	10 years up to 20 years %	20 years and over %	Is this current employer?	
							Yes %	No %
Mechanical	(35)	29	17	37	14	7	29	71
Thermal Insulation	(4)	-	25	-	50	25	75	25
Electrical	(9)	22	22	33	22	-	33	67
Civil	(17)	-	7	7	59	29	71	29
Scaffolding	(7)	-	29	29	29	14	43	57
All	(72)	17%	17%	26%	29%	11%	43%	57%

7 See Appendix 3

Table 5.2

Managers - Length of time with current employer

Trade Group	No. of Respondents	On this site as manager							On this site in total							In total with company							
		3 months & under	4 months up to 1 year	1 year up to 3 years	3 years up to 5 years	5 years up to 10 years	10 years up to 20 years	20 years and over	3 months and under	4 months up to 1 year	1 year up to 3 years	3 years up to 5 years	5 years up to 10 years	10 years up to 20 years	20 years and over	3 months and under	4 months up to 1 year	1 year up to 3 years	3 years up to 5 years	5 years up to 10 years	10 years up to 20 years	20 years and over	
Mechanical	(12)	(1)	(3)	(4)	(2)	(1)	-	(1)	(3)	(5)	(2)	(1)	(1)	-	(1)	(1)	(1)	(1)	(1)	(2)	(2)	(2)	(1)
Thermal Insulation	(4)	-	-	(2)	-	(2)	-	-	-	(1)	(1)	(1)	(1)	(1)	-	-	-	-	(1)	(1)	(2)	-	-
Electrical	(5)	-	(2)	(1)	(1)	-	-	-	(2)	(1)	(1)	-	(1)	(1)	(1)	-	-	(1)	(1)	(1)	(1)	(1)	(1)
Civil	(4)	-	(1)	(2)	-	-	-	-	-	(3)	-	-	-	(1)	(1)	-	-	(1)	(1)	(1)	(1)	(1)	(1)
Scaffolding	(3)	(1)	(2)	-	-	-	(1)	(1)	(2)	-	-	(1)	-	-	-	-	-	(1)	(1)	-	-	(1)	(1)
All	(28)	7%	29%	32%	11%	11%	4%	25%	36%	14%	7%	11%	4%	25%	36%	14%	7%	11%	4%	25%	36%	14%	14%

of its managers have been with their current employer for less than three years. All scaffolding managers are new to the Merseyside site, but not to their companies.

Similar patterns of differences between trade groups are noticeable when comparisons are made on employees' expected duration of employment with their current company. This is significantly shorter for mechanical operatives than for those in any other trade group, and significantly shorter for thermal insulation and scaffolding operatives than for electrical or civil operatives. Mechanical shop stewards have significantly shorter expectations than civil shop stewards, and mechanical supervisors than electrical or civil supervisors. These figures, of course, reflect the typical pattern of mechanical contractors of employing most manual workers and many first level supervisors for one contract only with little opportunity for transfer.

When comparisons are made between roles on lengths of service with their current employer, managers and supervisors overall are found to have significantly longer service than either operatives or shop stewards. Within trade groups, there are significant differences between the lengths of service of operatives on the one hand and supervisors and managers on the other in the mechanical group; between operatives and supervisors in the electrical, civil and scaffolding groups; and between civil shop stewards and supervisors.

Experience of stability of employment is affected by the transfer policies of companies. Table 5.3 shows the numbers of operatives, shop stewards and supervisors in each trade group who were transferred onto the Merseyside large site by their current employer. The figures for the civil trade group are similar to the average for the building

industry (Phelps Brown Report, 1968, p.61). Overall on the Merseyside site, supervisors are significantly more likely than either operatives or shop stewards to have been transferred. Within roles civil operatives are significantly more likely than mechanical operatives to have been transferred.

Table 5.3

Operatives, Shop Stewards, Supervisors - Transfer
by current employer onto Merseyside site

Role	Trade Group	No. of Respondents	Transferred onto Site
Operative			%
	Mechanical	(50)	7
	Thermal Insulation	(14)	36
	Electrical	(27)	21
	Civil	(43)	40
	Scaffolding	(15)	20
	All	(149)	23%
Shop Steward	Mechanical	(22)	14
	Thermal Insulation	(4)	25
	Electrical	(4)	25
	Civil	(9)	33
	Scaffolding	(5)	60
		All	(44)
Supervisor	Mechanical	(35)	37
	Thermal Insulation	(4)	75
	Electrical	(9)	44
	Civil	(17)	59
	Scaffolding	(7)	71
		All	(72)

7 See Appendix 3

Transfer policies of companies and the overall stability of employment offered are reflected in the amount of unemployment experienced by contractors' employees. Very few supervisors experienced a period of

Table 5.4

Operatives and Shop Stewards - Experience of Unemployment

Trade Group	Role	No. of Respondents	Unemployment immediately before current job					Longest period of unemployment in last 10 years				
			1 month and under %	1 month - 3 month %	4 month - 6 month %	7 month - 12 month %	1 month and under %	1 month - 3 month %	4 month - 6 month %	7 month - 12 month %		
Mechanical	Operative	(50)	60	18	12	10	28	26	24	22		
	Shop Steward	(22)	55	9	23	14	36	14	32	18		
Thermal Insulation	Operative	(14)	86	✓	✓	-	71	21	✓	-		
	Shop Steward	(4)	100	-	-	-	100	-	-	-		
Electrical	Operative	(28)	96	✓	-	-	68	21	✓	✓		
	Shop Steward	(4)	100	-	-	-	75	-	25	-		
Civil	Operative	(43)	98	-	✓	-	95	✓	-	-		
	Shop Steward	(9)	89	11	-	-	78	22	-	-		
Scaffolding	Operative	(15)	80	✓	✓	✓	73	✓	✓	✓		
	Shop Steward	(5)	100	-	-	-	100	-	-	-		
All	Operative	(150)	82%	8%	6%	4%	63%	17%	11%	9%		
	Shop Steward	(44)	75%	7%	11%	7%	61%	11%	18%	9%		

✓ See Appendix 3

unemployment immediately prior to taking up their current post, and over three quarters of them had not been out of work for a continuous period of more than a month at any time during the past ten years.

None of the remainder had experienced a period of unemployment of over three months. However, for operatives and shop stewards experience of unemployment is somewhat greater. Findings are presented in Table 5.4.

There are no significant differences in the unemployment experiences of operatives and shop stewards. Within each role, however, unemployment has been greater in the mechanical trade group. Mechanical operatives have experienced significantly longer unemployment than either thermal insulation, electrical or civil operatives. Mechanical shop stewards have experienced significantly longer unemployment than civil shop stewards. Many men stated that they had no 'foreigners' or 'lumpers' during recent periods of unemployment (cf. Berry, 1963, pp.29-30).

These unemployment figures can be set in context using findings from other surveys. NEDO estimated that the average large site worker experienced six weeks unemployment in 1966 (1970a, p.55). In building and civil engineering, Shenfield found that of skilled men who were unemployed in 1965, 56% were out of work for less than six weeks and 15% for more than six months (1968, p.8).

The experiences of employees at all levels in taking a job involving living away from home are relevant to an examination of both unemployment and continuity of work with one company. (Table 5.5).

Overall, supervisors and managers are significantly more likely to have worked away than either operatives or shop stewards. Within roles, mechanical operatives are significantly more likely than operatives in

Table 5.5

Operatives, Shop Stewards, Supervisors,
Managers - Experience of working away from
home for more than one month during last ten years

Role	Trade Group	No. of Respondents	Worked away %
Operative	Mechanical	(50)	74
	Thermal Insulation	(14)	36
	Electrical	(28)	43
	Civil	(43)	9
	Scaffolding	(15)	7
	All	(150)	39%
Shop Steward	Mechanical	(22)	50
	Thermal Insulation	(4)	50
	Electrical	(4)	50
	Civil	(9)	-
	Scaffolding	(5)	-
	All	(44)	34%
Supervisor	Mechanical	(35)	74
	Thermal Insulation	(4)	100
	Electrical	(9)	89
	Civil	(17)	12
	Scaffolding	(7)	14
	All	(72)	57%
Manager	Mechanical	(12)	100
	Thermal Insulation	(4)	50
	Electrical	(5)	40
	Civil	(4)	-
	Scaffolding	(3)	-
	All	(28)	57%

/ See Appendix 3

any other trade group to have worked away, while electrical operatives differ significantly from civil and scaffolding operatives on this measure. The figures for the last two trade groups are similar to those reported elsewhere for the building industry (Thomas, 1968, p.38). Mechanical shop stewards are significantly more likely to have worked away than are civil stewards. For supervisors, those in the civil and scaffolding trade groups are each significantly less likely to have worked away than are supervisors in the other three trade groups.

In order to examine whether there is any relationship between experience of unemployment and having worked away from home, these factors were cross tabulated for operatives and shop stewards. For both roles, those who have not worked away have experienced significantly less unemployment. However, for mechanical operatives alone, the finding - although not significant - is in the opposite direction. All that can be tentatively concluded at this stage is that there are probably two trends present. The dominant one is that experience of unemployment leads men to seek work outside their home area. There is inertia to be overcome in most cases before this happens. This was aptly expressed by an electrician who had experienced eight months unemployment, "... time slips by ... you always think a local job will turn up soon ...". The other trend, which is hinted at in the mechanical trade group, is that some men are reluctant to move away to work and so remain unemployed for extended periods.

There is evidence that the vast majority of employees at all levels are committed to employment in the construction industry. Thus, as Table 5.6 illustrates, 83% of all operatives, 91% of all shop stewards and 97% of all supervisors had their immediate previous job in

Table 5.6

Operatives, Shop Stewards, Supervisors - Type of work in previous two jobs

Role	Trade Group	No. of Respondents	Immediate Previous Job			Two Jobs Back			
			Contracting %	Factory or Shipyard %	Other %	Contracting %	Factory or Shipyard %	Other %	School Services, etc %
Operative	Mechanical	(50)	84	10	7	72	12	10	7
	Thermal Insul.	(14)	72	21	7	79	7	7	-
	Electrical	(25)	80	7	16	60	7	12	20
	Civil	(42)	82	7	13	64	7	10	21
	Scaffolding	(15)	93	7	-	73	7	-	20
All		(146)	83%	9%	8%	69%	9%	10%	12%
Shop Steward	Mechanical	(21)	95	7	-	86	14	-	-
	Thermal Insul.	(4)	100	-	-	100	-	-	-
	Electrical	(4)	100	-	-	75	25	-	-
	Civil	(9)	67	33	-	23	-	44	33
	Scaffolding	(5)	100	-	-	80	-	-	20
All		(43)	91%	9%	-	73%	9%	9%	9%
Supervisor	Mechanical	(35)	97	-	7	97	7	-	-
	Thermal Insul.	(4)	100	-	-	100	-	-	-
	Electrical	(9)	100	-	-	100	-	-	-
	Civil	(15)	93	-	7	80	-	-	20
	Scaffolding	(7)	100	-	-	71	-	-	29
All		(70)	97%	-	3%	92%	1%	-	7%

7 See Appendix 3

contracting. These findings have a parallel in shipbuilding which is also characterised by a large degree of industrial stability (Brown et al, 1972, p.20). Although there are no significant differences between trade groups, the impression from the interviews was that welders were more mobile between industries than were other craftsmen and that it was the labourers in the various trade groups who showed the most varied job patterns. For men who were mobile within the construction industry, almost a quarter of the operatives and shop stewards and a fifth of the supervisors had their immediate previous job with a contractor currently or recently on the Merseyside site.

The final aspect of employment experience to be examined is whether employees left their former firms voluntarily or involuntarily. There are no significant differences between the responses given for the immediate previous job and two jobs back. Thus in Table 5.7, which shows the proportion made redundant, only data for the immediate previous employer is presented.

Overall, there are no significant differences between the three roles in the proportions made redundant. Within roles, mechanical operatives are significantly more likely to have been made redundant by their last employer than are either thermal or electrical operatives, mechanical shop stewards differ significantly on this measure from civils, and mechanical supervisors from both thermal and civil supervisors. The redundancy figures for operatives and shop stewards presented in Table 5.7 are of the same order as the proportions of involuntary leavers reported by other surveys on large sites (NEDO, 1970a, pp.81-2; CIR No. 29, 1972, p.56). These survey figures include men who were dismissed. In the Merseyside study no-one admitted to falling into this category,

but it seems likely that some men who claimed to have been made redundant were in fact dismissed.

Table 5.7

Operatives, Shop Stewards, Supervisors - Experience of being made redundant by immediate previous employer

Role	Trade Group	No. of Respondents	Made Redundant %
Operative	Mechanical	(50)	82
	Thermal Insulation	(14)	43
	Electrical	(28)	32
	Civil	(43)	35
	Scaffolding	(15)	53
	All	(150)	53%
Shop Steward	Mechanical	(21)	76
	Thermal Insulation	(4)	75
	Electrical	(4)	25
	Civil	(9)	33
	Scaffolding	(5)	40
	All	(43)	58%
Supervisor	Mechanical	(35)	57
	Thermal Insulation	(4)	-
	Electrical	(9)	44
	Civil	(17)	15
	Scaffolding	(7)	29
	All	(72)	39%

PROMOTION EXPERIENCE

Information was collected on the experience of contractors' operatives, shop stewards, supervisors and managers of holding posts at different levels in the managerial hierarchy.

Overall, 12% of all operatives and 18% of all shop stewards have held a supervisory post in the industry at some time in the past. Mechanical operatives, 24% of whom have done so, are significantly more likely to have been supervisors than are civil operatives. There are no significant differences between the supervisory experiences of shop stewards in the different trade groups, nor between them and operatives.

All first level supervisors on site started in the industry as operatives but some of them have experienced fluctuations in status following their initial promotion. 15% of all current first level supervisors have at some stage experienced downward mobility from supervisor to operative, while 3% have experienced a fluctuation up the managerial hierarchy. There are no significant differences between trade groups on this measure.

The career backgrounds of managers are shown in Table 5.8. This illustrates that although the majority joined their current employer as a manager, most of them did start in the industry as an operative. The main exceptions to this are the civil engineering managers who are significantly less likely than thermal insulation or electrical managers to have ever been operatives. Typically site agents in civil engineering are qualified engineers, and the highest post that a craftsman can reach is that of general foreman.

TRADE UNION ACTIVITY EXPERIENCE

The first aspect to be examined is the experience of operatives, shop stewards, supervisors and managers of holding the office of shop steward at some time in the past.

Table 5.8

Managers - Career Backgrounds

Trade Group	No. of Respondents	First job with current employer			First job in this industry	
		Manager	First-Line Supervisor	Operative	Manager	Operative
Mechanical: Line Managers	(9)	(n)	(n)	(n)	(n)	(n)
Personnel Managers	(3)	(5)	-	(4)	(3)	(6)
All Mech. Managers	(12)	(3)	-	-	(2)	(1)
		(8)	-	(4)	(5)	(7)
Thermal Insulation	(4)	(2)	(1)	(1)	-	(4)
Electrical	(5)	(3)	-	(2)	-	(5)
Civil	(4)	(4)	-	-	(4)	-
Scaffolding	(3)	(2)	-	(1)	(1)	(2)
All	(28)	68%	4%	29%	36%	64%

Overall, as Table 5.9 shows, 14% of operatives who are not currently stewards have been so at some stage. This can be compared with a survey finding over all industries that 5%-10% of union members become shop stewards sometime during their working lives. (Workplace Industrial Relations, 1968, p.121). On the Merseyside site, mechanical operatives are significantly more likely than those in the thermal insulation, electrical or civil trade groups, to have held this office.

Table 5.9

Operatives - Experience of Shop Steward's Office

Trade Group	No. of Respondents	Held office in past
		%
Mechanical	(50)	28
Thermal Insulation	(14)	-
Electrical	(28)	†
Civil	(43)	†
Scaffolding	(15)	27
All	(150)	14%

† See Appendix 3

Combination of the findings of Table 5.9 and data from the previous section on promotion experience shows that 6% of all operatives and 12% of mechanical operatives, have been both a shop steward and a supervisor on separate occasions in the past.

Of current shop stewards, 50% have been continuously in office for under one year, and 90% for under three years. There are no significant differences between trade groups on this measure. Most stewards have held the office on previous occasions and, as Table 5.10 illustrates,

overall 34% are now in post for the fourth or more time. Mechanical stewards have held such a post on a significantly greater number of separate occasions than civil stewards. Of course, the latter have significantly longer service with their current employer.

Table 5.10

Shop Stewards - Experience of holding steward's office on previous occasions

Trade Group	No. of Respondents	None	Held Once	Held twice	Held three or more times
		%	%	%	%
Mechanical	(22)	14	18	9	59
Thermal Insulation	(4)	50	25	25	-
Electrical	(4)	75	25	-	-
Civil	(9)	78	-	-	22
Scaffolding	(5)	80	-	20	-
All	(44)	43%	14%	9%	34%

The experience of current supervisors of holding a shop steward's post during their last five years as an operative is presented in Table 5.11. Mechanical supervisors are significantly more likely to have done so than supervisors in the other trade groups combined. A graphic example of role mobility in the mechanical trade group is the situation in one firm where such movements had resulted in an exchange of roles between a shop steward and a foreman.

Table 5.11

Supervisors - Experience of Shop Steward's post during last five years as an operative

Trade Group	No. of Respondents	Held Steward's post
		%
Mechanical	(35)	43
Thermal Insulation	(4)	-
Electrical	(9)	11
Civil	(17)	12
Scaffolding	(7)	14
All	(72)	26%

Of those managers who have been operatives in the industry, 47% were shop stewards at some stage. Thus 29% of all managers currently on site have held steward's office. The figures are higher for the mechanical trade group. Here 42% of all managers, and 71% of those managers who have been operatives, have been shop stewards in the past.

When comparisons are made between the four roles on experience of shop steward's office, two significant relationships are found for the site as a whole. Current shop stewards are significantly more likely to have been stewards in the past than are current operatives, supervisors or managers. Current supervisors are significantly more likely than current operatives to have been shop stewards.

A second aspect of union activity which will be briefly examined is experience of holding voluntary union office off site, either at branch or higher level. Currently 3% of all operatives and 23% of all shop stewards hold such office. The latter figure is similar to that found in other surveys (Workplace Industrial Relations, 1968, p.11; Parker, 1974, p.11; Clegg et al, 1961, pp.167-71). 6% of all operatives and 39% of all shop stewards have held such office in the past. Stewards are significantly more likely than operatives to currently hold union office off site and to have done so in the past. (cf. McCarthy and Parker, 1968, pp.57-9). Mechanical shop stewards, 64% of whom have held union office off site at some time, are significantly more likely to have done so than stewards in other trade groups.

The final aspect of union activity to be examined is attendance at branch meetings. These meetings vary greatly in their relevance to the site and to the industry with, for example, the AEU meetings dominated by the problems of a large motor manufacturing plant in the vicinity. Location and timing of branch meetings also influence attendance. In the civil trade group, for example, many Welsh operatives are members of UCATT branches in the Wirral meeting on Sunday mornings.

Table 5.12

Operatives and Shop Stewards - Number of Union
branch meetings attended in previous year

Role	No. of Respondents	All	Most	A few	One	None
		%	%	%	%	%
Operatives	(145)	8	4	13	11	63
Shop Stewards	(44)	37	19	30	2	11

Figures on branch meeting attendance are presented in Table 5.12. Shop stewards are significantly more frequent attenders than are operatives. There are no significant differences between trade groups. The figures for the Merseyside large site are of the same order as those reported in many other surveys (e.g. Workplace Industrial Relations, 1968, pp.25, 121; Roberts, 1956, p.95; Cotgrove and Vamplew, 1972, p.175; Goldthorpe et al, 1968, pp.99-100). Higher average attendance figures are, however, reported in a few studies (e.g. Brown and Brannen, 1970, p.77; Pedler, 1973, p.53; Goodman and Whittingham, 1969, p.104).

AGE, GEOGRAPHICAL ORIGINS AND SKILL LEVEL

Measures for the population are available for each of these three factors and will be presented, aggregated by firm, in Chapter 7. Even so, it is of interest to test for significant differences by role and trade group for the interview sample as an aid to interpreting findings from the hypothesis testing.

There are, overall, no significant differences in the age distribution of members of the four roles. Within roles, electrical operatives are significantly more likely to be less than 35 years old than are mechanical or civil operatives, and thermal insulation shop stewards are significantly likely to be younger than civil shop stewards. The finding for electrical operatives is in line with the industry-wide estimate that 70% of them are under the age of 35 (PIB No. 120, 1969, p.4).

On geographical origins, both supervisors and managers are significantly more likely than either operatives or shop stewards to have their present permanent address beyond daily travelling distance of the site. This is the case both within the mechanical trade group and overall. Civil operatives are significantly less likely than operatives in each of the other trade groups to be drawn from the local Merseyside area. Just under one third of civil operatives in the interview sample are from North Wales and one fifth from Ireland. There is an indication that mechanical managers are more likely to be drawn from outside the local area than is the case for other trade groups.

The final measure to be considered is the skill level of operatives and shop stewards. For both roles, the skill composition of both the civil and the scaffolding trade groups differ significantly from that of each of the remaining three groups. The civil trade group is dominated by labourers and the scaffolding group by semi-skilled scaffolders, whereas the other groups are composed mainly of men classified and paid as skilled.

DESCRIPTIVE FINDINGS: ATTITUDES OF CONTRACTORS'

EMPLOYEES ON THE MERSEYSIDE LARGE SITE

INTRODUCTION

In this chapter, detailed findings from the case study of operatives', shop stewards', supervisors' and managers' attitudes to work, to their current employer, to the supervisory role, to activity in the union, to union involvement in aspects of rule making, to conflict, and to client influence, are presented. Differences between roles and trade groups on the various items are examined, as are a limited number of inter-relationships of interest in interpreting the data. Comparative findings from other studies are introduced where appropriate.

ATTITUDES TO WORK

Liked and disliked features of jobs

People's attitudes towards jobs often differ between the time they are actually working in a job and the time when they are considering a job change (Daniel, 1970). Both these situations are, therefore, considered.

Operatives, shop stewards, supervisors and managers were asked their reasons for liking their most preferred job, and what they liked best about their current job and what they liked least.

Table 6.1

Operatives and Shop Stewards -
Reasons for liking their most favoured job

Trade Group	Role	No. of Respondents	Reasons							
			No preference between jobs	Amenities/Facilities	Security of Employment	Job itself - Interest/Variety	40 hour week	Level of Earnings	Personal Relationships	Behaviour of Managers and Supervisors
Mechanical	Operative	(49)	16	7	7	27	10	51	20	29
	Shop Steward	(22)	32	-	7	14	7	23	27	27
Thermal Insulation	Operative	(14)	36	-	7	36	-	29	7	7
	Shop Steward	(4)	50	-	-	-	-	50	-	25
Electrical	Operative	(27)	-	7	7	41	-	41	15	33
	Shop Steward	(4)	-	-	50	50	-	50	25	25
Civil	Operative	(43)	14	14	21	14	7	28	7	33
	Shop Steward	(9)	22	-	-	22	22	33	-	11
Scaffolding	Operative	(15)	7	-	-	7	-	87	-	20
	Shop Steward	(5)	20	-	-	20	-	20	20	20
All	Operative	(148)	14%	7%	11%	24%	5%	43%	11%	28%
	Shop Steward	(44)	27%	-	7%	18%	7%	30%	18%	23%

7 See Appendix 3

Table 6.1 shows that for operatives and shop stewards, level of earnings is the single most important factor distinguishing their best liked job. Scaffolding operatives are significantly more likely to mention this than operatives in any other trade group, and mechanical operatives are significantly more likely to mention it than civils. The next most frequently expressed reason is what is described as fair behaviour by management and supervision, and this usually involves a lack of close direction and a flexible attitude to timekeeping and the like. The third most frequently mentioned factor by operatives and shop stewards is the interest of the work itself, and particularly the variety it provides. Other studies have found that general enjoyment of the job is fairly widespread in construction (Shenfield, 1968, p.24; Thomas, 1968, p.19; Davis, 1948, p.59). In general, the findings are similar to those obtained in a survey of shipbuilding workers (Brown et al, 1972, p.28).

A very similar range and distribution of factors are given by operatives and shop stewards as the best features of their current job. Here 39% of operatives mention the level of earnings and 23% aspects of the work itself, but only 13% mention the behaviour of management and supervision. 22% of operatives and 20% of shop stewards are unable to name anything they like about their current job.

The feature of their current job which both operatives and shop stewards dislike most is the general physical environment, especially the mud, smells, and 'dangerous' chemicals. This is mentioned by about one fifth of men in both roles. A complaint about levels of earnings, made by 13% of operatives, is the only other factor mentioned by more than 10% of respondents. 31% of operatives and almost one half of the shop stewards are unable to name anything that they dislike.

For supervisors and managers, the favourable factors mentioned for their most preferred job and their current job are so similar that only data for the latter will be presented. The most commonly mentioned factor is the interest of the work itself. This is given by 29% of supervisors and 50% of managers. The independence afforded by their position is particularly enjoyed by managers. The only other factor mentioned by more than 10% of respondents in either role is good personal relationships. 15% of supervisors and 21% of managers raise this. 28% of supervisors and 14% of managers are unable to mention any feature of their current job which they particularly like.

On the question of the least liked feature of their current job, the only aspect raised with any frequency is the behaviour of operatives and shop stewards. 24% of supervisors and 29% of managers see their subordinates as lazy and strike prone. However, 47% of supervisors and 29% of managers are unable to name anything that they particularly dislike.

In order to investigate attitudes towards work at the time of job change, operatives, shop stewards and supervisors were asked their reasons for joining their current employer. (Table 6.2) The most noticeable feature is that the majority in all roles have no positive reasons (cf. NEDO, 1969, p.12). In many cases they have taken the only job they knew was going at the time. Mechanical operatives are significantly less likely to have made a positive choice than either electrical or scaffolding operatives, and thermal insulation and civil operatives are both significantly less likely to have done so than scaffolding operatives. Certainly in the scaffolding trade group, the reputation of the Merseyside large site as being one of the highest

Table 6.2

Operatives, Shop Stewards and Supervisors -
Reasons for joining current employer

Role	Trade Group	No. of Respondents	No Positive Choice	Positive Choice				Friends/ Relations Here
				Pay	Amenities	Location	%	
Operative	Mechanical	(50)	72	12	8	7	10	
	Thermal Insulation	(14)	64	-	-	7	21	
	Electrical	(27)	44	25	11	14	11	
	Civil	(43)	65	16	7	12	14	
	Scaffolding	(15)	27	33	7	40	33	
	All	(149)	60%	17%	7%	12%	15%	
Shop Steward	Mechanical	(22)	59	18	-	23	9	
	Thermal Insulation	(4)	50	25	-	25	25	
	Electrical	(4)	25	25	-	50	-	
	Civil	(9)	57	11	11	11	11	
	Scaffolding	(5)	60	40	-	20	-	
	All	(44)	57%	21%	2%	23%	9%	
Supervisor	Mechanical	(35)	57	11	34	7	9	
	Thermal Insulation	(4)	75	25	-	-	-	
	Electrical	(9)	67	11	22	22	-	
	Civil	(17)	71	7	7	12	12	
	Scaffolding	(7)	86	14	-	-	-	
	All	(72)	65%	11%	21%	8%	7%	

7 See Appendix 3

paying jobs in the area was passed between friends. For all roles and trade groups reasons given stress factors extrinsic to the job, whereas more intrinsic factors are mentioned when men are actually working on a job.

It is noticeable, considering the instability of employment noted in the previous chapter, that on all the questions so far very little mention has been made of security of employment. Only 7% of operatives mention its presence as a good feature of their current job, and only 3% mention its absence as something they dislike. The significance of a situation depends on the expectations of the individuals involved. In many cases, redundancy and periods of unemployment are treated as a normal part of the industry and not as a cause for special comment.

Nevertheless, an insecure employment situation might be expected to influence behaviour on the job. The sizeable minority of operatives, shop stewards and supervisors who have no real preference between jobs or likes in their current job, often made comments such as, "Here today, gone tomorrow, so I don't bother".

In order to investigate this area a little more systematically, operatives and shop stewards were asked their attitudes to spinning a job out. Only 13% of operatives and 5% of stewards think this is a policy which should be pursued. The objections most commonly raised are its effects on bonus earnings (23%) and on the future employment prospects of the individuals involved (37%). 17% of operatives think such action is impracticable. In response to a query about the quality of work, three quarters of all operatives and shop stewards feel that at least one half of the men in their current company take a pride in their workmanship.

There are no significant differences between the two roles or the five trade groups on these factors.

To put these findings in perspective, supervisors and managers were asked to comment on the quantity and quality of work done by manual employees in their current company. 29% of all managers and 22% of supervisors feel that the operatives in their firm do restrict output to make jobs last longer. 58% of supervisors rate the productivity of the average operative in their current company as fairly high, 29% rate it as fair, and 13% rate it as low. Managers' ratings do not differ significantly from those of supervisors. When comparisons are made between trade groups, electrical supervisors are significantly more likely to rate the productivity of their operatives as fairly high than are civil supervisors.

On the question of the conscientiousness of their average operative, 67% of supervisors and 54% of managers rate it as fairly high, 22% and 21% respectively as fair, and 11% and 25% respectively as low. These differences are not significant. Only civil supervisors differ significantly between the ratings they give on conscientiousness and productivity. 76% of them rate the former as fairly high but only 29% give this rating on the latter measure. Finally, on the measure of quality of workmanship, 82% of supervisors and a similar proportion of managers think that at least a half of their manual employees take a pride in their workmanship. There are no significant differences between trade groups.

Meeting socially outside work

Another element of use in describing attitudes to work is the extent to which men integrate their work and non-work lives. As one indication of this, Table 6.3 shows the extent to which work colleagues are met socially outside of work. It needs to be remembered that this depends on opportunity as well as inclination.

Table 6.3

Operatives, Shop Stewards, Supervisors and Managers - Social contacts with work colleagues out of working hours

Role	No. of Respondents	Frequent	Occasional	Rare
		%	%	%
Operative	(150)	13	45	43
Shop Steward	(44)	30	50	20
Supervisor	(72)	10	40	49
Manager	(28)	7	68	25

Shop stewards are significantly more likely than either operatives or supervisors to frequently or occasionally meet work colleagues socially. Indeed it was observed in one large mechanical contracting company that the stewards were a fairly tightly integrated social group whereas the foremen frequently did not know each other's names. There is also an indication that managers differ from supervisors on this measure. Within roles, scaffolding operatives are significantly more likely to meet socially than are other operatives, and this ties in with the earlier finding of more scaffolders having knowledge of their current job before taking it. Electrical supervisors are significantly less likely than other supervisors to meet socially. The extent of social contact among

operatives is only about one half of that reported for shipyard workers on Tyneside (Brown et al, 1972, p.24). Differences in geographical dispersion of the labour force and length of service distribution are probably important in explaining this.

Working away from home

The expressed willingness of operatives, shop stewards and supervisors to take a job at some time in the future involving them living away from home is presented in Table 6.4. About 40% of operatives and supervisors, and 60% of shop stewards, are unwilling to work away in any circumstances. Overall the differences between the roles are not significant. For each of the three roles, men in the mechanical trade group are significantly likely to be more willing to work away than men in either the civil or scaffolding trade groups. Additionally, both thermal insulation and electrical supervisors are significantly more likely than civil supervisors to be willing to work away. A typical response in the civil trade group is that of a joiner who said that he would rather work as a labourer than move.

The findings for mechanical and electrical operatives are similar to those in a national survey in which 75% of these workers declared themselves willing to work away (NEDO, 1970a, p.56). The low proportion of men in the civil and scaffolding trade groups who are willing to work away also compares with findings from other surveys (e.g. Phelps Brown Report, 1968, pp.29-30, 70; Shenfield, 1968, p.23).

There is evidence from the Merseyside large site that it is mainly those same people who have worked away in the past who are willing to work away in the future. Significant relationships between past experiences

Table 6.4

Operatives; Shop Stewards and Supervisors
Willingness to work away from home in future

Role	Trade Group	No. of Respondents	Never %	Only as a last resort %	Readily %
Operative	Mechanical	(48)	19	44	38
	Thermal Insulation	(12)	50	33	17
	Electrical	(27)	30	26	44
	Civil	(27)	74	15	11
	Scaffolding	(15)	73	27	-
	All	(129)	42%	31%	27%
Shop Steward	Mechanical	(21)	38	43	19
	Thermal Insulation	(4)	50	25	25
	Electrical	(4)	50	-	50
	Civil	(9)	100	-	-
	Scaffolding	(5)	100	-	-
	All	(43)	61%	23%	16%
Supervisor	Mechanical	(34)	15	38	47
	Thermal Insulation	(4)	25	50	25
	Electrical	(9)	22	33	44
	Civil	(15)	93	7	-
	Scaffolding	(6)	67	33	-
	All	(68)	38%	31%	31%

NB: Ineligible interviewees, e.g. elderly, not included.

and future intentions on this measure are found over the whole site for operatives; shop stewards and supervisors, and within trade groups for mechanical and civil operatives and for mechanical supervisors.

Evidence of a relationship between experience of unemployment and having worked away from home has been presented in the previous chapter. When future intentions are considered, operatives - both overall and within the scaffolding trade group - who have experienced more unemployment are more likely to express a willingness to work away from home. This gives an indication that many men view working away from home as the last alternative to unemployment. They do not positively seek to move away to jobs which may be seen as more attractive than local jobs.

ATTITUDES TO CURRENT EMPLOYER

General Satisfaction

Operatives and shop stewards were asked how satisfied they were with their current employer compared both with previous jobs they had held and with other firms or groups on the Merseyside large site.

On the first point, 57% of all operatives and 43% of all shop stewards prefer their current job to any previous one. The difference between the two roles is not significant. There are, however, significant differences between the preferences of operatives in the various trade groups. Mechanical operatives, only 31% of whom prefer their current employer, are less likely to do so than either thermal insulation (57%), electrical (59%), civil (74%) or scaffolding (87%) operatives.

On the second point, 66% of all operatives and 52% of all stewards either make no comparisons with other firms or groups on the site or, if they do, consider no other group better off. When comparisons are made they are generally on pay, and dissatisfaction is significantly higher in the electrical trade group. Here 64% of operatives and 75% of the shop stewards feel that other groups are better off.

It is noticeable that extremely limited spheres of comparison are adopted (cf. Hyman and Brough, 1975, pp.42-4; Bain et al, 1973, p.111; CIR No. 29, 1972, p.25). Thus civil craftsmen, who objectively are one of the lower paid groups on site, do not make comparisons with craftsmen in other trade groups or with semi-skilled scaffolders. Physical and administrative isolation are probably contributory factors here. Satisfaction depends on expectations, and civil labourers who compare their situation on the Merseyside site with previous jobs in agriculture or with small local builders are satisfied.

Fairness to Manual Employees

Data on operatives', shop stewards', supervisors' and managers' perceptions of the fairness of their current company towards its manual employees in four areas was collected.

Timekeeping is the first area to be examined. Since arrival and departure times are fixed by shared site transport, it is in the rigour of restricting breaks to the formally agreed length that there is most opportunity for variation between firms. Over 90% of operatives, shop stewards and supervisors, and all the managers think their company behaves reasonably over timekeeping at breaks. Among these are included the 18% of operatives, 16% of stewards, 26% of supervisors, and 29% of

managers who see their company as strict but fair. There are no significant differences either between roles or trade groups.

The impression, both from interviews and from observation, is that this general acceptance of fairness is achieved in many companies through not being very strict over timekeeping at breaks. In some mechanical firms, a 10 minute official break can result in up to 40 minutes off the job. There is, of course, no necessary relationship between time spent actually on the job and the amount of work done.

The second area to be investigated is whether respondents regard their current company as a ruthless employer. The vast majority do not. This is the case for 83% of both operatives and supervisors, 86% of shop stewards, and, not surprisingly, 100% of managers. Overall the differences between the four roles are not significant, although it is of interest to note that within the mechanical trade group operatives are significantly more likely than stewards to regard their employer as ruthless. Within roles, mechanical operatives, 29% of whom think their company is ruthless, are significantly more likely than civil operatives to think this. However, mechanical shop stewards are significantly less likely than either electrical or scaffolding stewards to see their company as ruthless.

The third area is whether respondents regard management in their company as open and honest in its dealings with the manual employees. Not surprisingly, managers, 90% of whom think it is, differ significantly from each of operatives (54%), shop stewards (48%) and supervisors (56%). Men in the civil trade group are more likely than those in other trade groups to see management as open and honest. Civil operatives, 84% of

whom think this, differ significantly from operatives in each of the other trade groups. Civil stewards, 89% of whom think this, differ significantly from mechanical, thermal insulation and scaffolding stewards. Civil supervisors (82%) differ significantly from mechanical and electrical supervisors.

The bonus scheme is the issue most frequently mentioned by operatives and shop stewards in the mechanical, thermal insulation and electrical groups as evidence of management dishonesty. Perceived disparities between effort and earnings in different weeks are attributed to management trickery. Other issues raised as evidence of management dishonesty include the claim that management provoke disputes to save paying wages when the job is held up for some reason, that they give false information on the profitability of contracts, and that they give false promises of security of employment.

The last of the four areas on the perceived fairness of the current employer is the extent to which respondents feel their company takes an interest in the welfare of its manual workers. (Table 6.5) Both overall and for the mechanical trade group alone, managers are significantly more likely than either operatives or shop stewards to describe their company as taking such an interest. 79% of civil operatives take this view, a significantly higher proportion than in other trade groups.

Factors raised in support of the current employer include good facilities and sympathetic treatment over personal problems. Respondents who take an opposite viewpoint are divided between those with some specific complaint, such as poor cabins, and those with a general bitterness

and distrust towards this employer and indeed all employers. For each role there is no connection between the 'objective' welfare situation in a firm, as measured by the standard of facilities and the existence of sick pay and pension schemes, and respondents evaluations of their firm's interest in the welfare of its manual workers. It therefore appears that, as in other areas, it is expectations which govern evaluations.

Table 6.5

Operatives, Shop Stewards, Supervisors and Managers -
Comments on "This company takes a real interest in the
welfare of their employees"

Role	No. of Respondents	Agree	Disagree
		%	%
Operative	(146)	53	47
Shop Steward	(43)	49	51
Supervisor	(68)	62	38
Manager	(28)	82	18

An index of operatives', shop stewards', supervisors', and managers' perceptions of the fairness of their current company towards its manual employees was constructed from these four measures. (See Appendix 4 for details). There are no significant differences between the four roles in the findings. Within roles, with the exception of managers where there are no significant differences, men in the civil trade group have the most favourable opinions of their current employer. Civil operatives differ significantly on this index from operatives in each other trade group. Civil shop stewards differ significantly from mechanical, thermal insulation and scaffolding stewards, and civil supervisors from mechanical and electrical supervisors.

Table 6.6

Promotion ambition profile of each trade group

Trade Group	No. of Respondents	Eligible Operatives willing to take supervisory post %	No. of Respondents	Eligible Stewards willing to take supervisory post %	No. of Respondents	Eligible Supervisors wanting to rise up managerial hierarchy %	No. of Respondents	Eligible Managers wanting to rise up managerial hierarchy %
Mechanical	(41)	24	(22)	14	(35)	66	(11)	100
Thermal Insulation	(10)	-	(4)	25	(4)	-	(3)	33
Electrical	(25)	56	(4)	75	(9)	89	(5)	60
Civil	(37)	54	(8)	50	(15)	47	(4)	75
Scaffolding	(14)	57	(5)	40	(6)	50	(3)	100
All	(127)	41%	(43)	30%	(69)	59%	(26)	81%

NB: Ineligible interviewees, e.g. elderly, labourers in firms where all supervisors drawn from more skilled grade, not included.

Promotion Ambitions

Table 6.6 shows the willingness of operatives, shop stewards, supervisors and managers to accept further promotion up the managerial hierarchy. In comparison with a nationwide survey of union members over all industries, the proportion of Merseyside site operatives and supervisors willing to take promotion is somewhat lower and the proportion of stewards is about the same (Workplace Industrial Relations, 1968, pp.12, 98, 134).

On the Merseyside large site, supervisors and managers are both significantly more likely to be willing to take further promotion than are either operatives or shop stewards. Thus ambition for further promotion is greater at successively higher levels in the managerial hierarchy. Among operatives, those in the electrical, civil and scaffolding trade groups are each significantly more likely to be willing to accept promotion than those in the mechanical or thermal insulation trade groups. Electrical shop stewards are significantly more likely than mechanical shop stewards to be willing to accept promotion. Mechanical and electrical supervisors are both significantly more willing than thermal insulation supervisors to accept further promotion.

The reasons for operatives and shop stewards favouring or not favouring the acceptance of a first line supervisory post were investigated. Those who would accept such a post were asked their reasons, and those who would not accept were asked what they thought were the reasons making others willing to do so. (Table 6.7)

Table 6.7

Operatives and Shop Stewards - Reasons favouring the acceptance of a Supervisory post

Role	Would respondent accept a supervisory post?		No. of Respondents	Reason for self or attributed to those who would accept		None Mentioned	Good pay	Interesting Nature of job	Likes power/status	Higher security	Has experience/ability	Ambition	Too lazy for manual work	Too old for manual work
	Yes	No		Self	Other									
Operative	Yes		(52)	Self			44	27	21	10	15	-	-	-
	No		(75)	Other		9	20	8	27	8	19	19	17	9
Shop Steward	Yes		(13)	Self		8	31	31	15	15	31	-	-	-
	No		(30)	Other		17	23	7	37	10	17	17	10	7

Table 6.7

As might be expected, there is a significant difference in the distribution of reasons given by acceptors and non-acceptors, and this is so for both operatives and shop stewards. Whereas acceptors stress the good pay and the broader scope and interest of a supervisor's job, non-acceptors give a greater weight to more negative factors. The latter frequently see those willing to become supervisors either as ambitious men who will enjoy wielding what power they can, or as rather naive characters holding no strong views who are duped into taking the job by promises of further promotion which will never materialise. A sizeable minority of non-acceptors, particularly in the thermal insulation and civil trade groups, stress personal ability as an important factor making others willing to take promotion.

Table 6.8 presents the reasons which operatives and shop stewards give for their own unwillingness to accept a supervisory post, and the reasons attributed to non-acceptors by those who would take such a post. Here again there are significant differences in the distribution of reasons given by the two groups in both roles.

Non-acceptors stress what they regard as the undesirable features of a supervisor's job. These include poor pay with staff foremen often earning less than craftsmen, poor treatment by management, lack of respect from operatives, and distasteful duties expressed by one mechanical operative as "... they are policemen, not tradesmen!". Non-accepting stewards often give their union activity as a major reason, and this is particularly so in the mechanical trade group where 47% of stewards mentioned it. Sentiments expressed here involved such notions as 'crossing to the other side' and so being viewed "as a traitor to his class and to his fellow workers" (Sykes, 1965a, p.302). The

Table 6.8

Operatives and Shop Stewards -
Reasons not favouring the acceptance of a Supervisory post

Role	Would respondent accept a supervisory post?	No. of Respondents	Reason for self or attributed to those who would not accept	None mentioned	Undesirable job	Lacks ability/experience	Too much responsibility	Dislikes existing supervisor	Active in Trade Union
Operative	No	(75)	Self	7	77	7	37	9	4
	Yes	(52)	Other	12	17	37	52	1	1
Shop Steward	No	(30)	Self	3	67	3	23	-	30
	Yes	(13)	Other	8	23	46	31	-	8

7 See Appendix 3

Table 6.8

majority of those operatives and shop stewards who would accept a supervisory post attributed the unwillingness of others to do so in terms of personal failings such as lack of ability or fear of taking responsibility.

In general, the reasons given for the willingness or unwillingness of manual employees to accept promotion reflect those reported in the literature (e.g. Bain et al, 1973, pp.116-7; Beynon and Blackburn, 1972, pp.88-91; Goldthorpe et al, 1968, pp.120-4; Beynon, 1973, pp.123-5).

There are no significant differences between those operatives and shop stewards who are willing to take a supervisory post and those who are not on any of the following biographical characteristics or aspects of their current employment situation: security of employment, supervisory experience, age, location of permanent home, length of service, experience of unemployment, size of firm, time of firm on site.

Supervisors' relations with manual employees

In the vast majority of cases, the role of the supervisor is restricted to the technical organization of the work and the day-to-day supervision of the manual employees. With one exception, no supervisors have 'hire/fire' responsibilities (cf. Workplace Industrial Relations, 1968, p.99; NEDO, 1970a, p.83). Indeed the majority have no involvement at all in the selection of labour. Their role in the handling of grievances is also very limited and, in the mechanical trade group in particular, most supervisors have no dealings at all with shop stewards.

When asked how satisfied they were with their amount of responsibility in the employment field, overall 58% of supervisors replied affirmatively. Mechanical supervisors, 57% of whom would like more responsibility, are

significantly less satisfied than supervisors in any other trade group. These findings may be compared with a nationwide survey over many industries which found that only 20% of foremen who dealt with shop stewards wanted more freedom in being able to settle issues themselves (Workplace Industrial Relations, 1968, p.110).

Table 6.9

Supervisors - Reasons given by those not wanting more responsibility in the employment field

No. of Respondents = 42			
Too much worry	24%	Would show favouritism to some men	10%
Don't want to offend men	21%	Good decisions taken now	36%
Lack of knowledge of broader implications	14%	Have enough responsibility already	29%
Lack training	17%		

Reasons given by supervisors for not wanting more responsibility in the employment field are presented in Table 6.9. There are no significant differences between trade groups in the reasons given.

Of those supervisors who would like more responsibility, 73% claim that their knowledge of the manual employees would enable them to make good decisions, 27% think that poor decisions are made now, and 20% feel that increased responsibility would give them more control over the men they supervise. The reasons given do not differ significantly between trade groups.

On the question of the conduct of their current role, supervisors were asked how popular they thought they were with the operatives and, at a different stage in the interview, what importance they attributed to popularity. Overall, 65% of supervisors feel they are popular, 32% feel they occupy a neutral position, and the remainder feel themselves to be very unpopular. There are no significant differences between trade groups. Not surprisingly those who feel they are popular are significantly more likely than other supervisors to say that popularity is helpful to getting the job done. This relationship holds both overall and for the mechanical trade group alone. The less popular supervisors typically expressed sentiments such as "If you're soft with these men, they take advantage of you".

Supervisors' Satisfaction with Management's Handling of the Manual Employees

Supervisors were asked five questions related to their evaluations of management's handling of the manual labour force. The majority of replies were favourable.

Overall, 72% of supervisors feel that management in their company understand the manual employees very or fairly well, and only 13% feel management's understanding is poor. There are no significant differences in opinion between trade groups.

On the question of the response of management to the demands of manual employees, 56% of supervisors feel management strike the right balance, 31% feel they give in too easily, and the remaining 13% feel that they do not give in easily enough. Civil supervisors, 94% of whom think management strike the correct balance, are significantly more likely

to think so than supervisors in any other trade group. 44% of electrical supervisors feel that management is too tough, a significantly higher proportion than in other trade groups. Overall the findings reflect the tendency among foremen in general, and construction foremen in particular, to see higher management as more willing to agree to union demands than they themselves would be (Workplace Industrial Relations, 1968, p.109; Parker, 1974, p.59). Indeed the proportion of supervisors on the Merseyside site rating their management as too lenient is higher than that reported in a survey over a wide range of industries (Workplace Industrial Relations, 1968, p.145).

Supervisors were asked two questions on the amount of support they feel they receive from higher management. Considering first a general question, 81% of supervisors feel that management always or usually backs them up over decisions they have made regarding the manual employees. There are no significant differences between trade groups. A survey over a wide range of industries reports a similar finding (Parker, 1974, p.16). However, on the specific issue of timekeeping, supervisors on the Merseyside site are split fairly evenly in all trade groups between those who feel management give them adequate support (48%) and those who do not (52%). Many of the latter expressed anger at the humiliation they had suffered when, following protests from the stewards, management agreed to restore pay to men who the supervisor had 'quartered'.

The final item in this area is whether supervisors feel that management pay too much attention to the shop stewards. Overall only 24% feel that too much attention is paid, and there are no significant differences between trade groups. The minority of supervisors who feel that

management does not back them up in general are significantly more likely than other supervisors to feel that too much attention is paid to the stewards.

The five measures were combined into a single index of supervisors' satisfaction with management's handling of the manual employees. (See Appendix 4 for details). On this index, civil supervisors are significantly more likely than mechanical supervisors to be satisfied.

There are two significant relationships between measures for supervisors on this index and on attitudes already presented. First, over the whole site, supervisors who perceive their current company to be fair towards its manual employees are more likely than other supervisors to be satisfied with management's handling of the labour force. Secondly, for all supervisors and for mechanical supervisors alone, those who are satisfied with the productivity of operatives in their current company are significantly more likely than other supervisors to be satisfied with management's handling of the labour force.

Managers' Evaluations of Supervisors

Managers' opinions on the loyalty and effectiveness of the supervisors in their current firm are presented in Table 6.10. On both counts, managers in the mechanical trade group have a lower opinion of their supervisors than do managers in other trade groups. The differences are not, however, significant.

Table 6.10

Managers - Rating of the Loyalty and Effectiveness of Supervisors in their Firm

Trade Group	No. of Respondents	Loyalty low effectiveness low	Loyalty high effectiveness low	Loyalty high effectiveness high
		%	%	%
Mechanical	(12)	50	8	42
All	(28)	32	14	54

In the civil trade group, managers typically expect high loyalty from their supervisors and specifically try to cultivate it. This contrasts with the typical situation in the mechanical and scaffolding trade groups, where supervisors are viewed as casual employees and loyalty is not expected.

Managers were asked if they would like their supervisors to have more responsibility in the employment field. Only one manager said he would. The main reasons given for not wanting to extend the supervisor's role are that good decisions are made already (25%) and that supervisors lack knowledge of the broader implications of decisions (25%). One quarter of the managers in the mechanical trade group feel their supervisors would show favouritism to some men.

Using items discussed above, an index of managers' evaluations of the loyalty and effectiveness of their supervisors was constructed. (See Appendix 4 for details). There are no significant differences between trade groups on this index. However, managers who give a high rating to the loyalty and effectiveness of their supervisors are significantly more likely than other managers to be satisfied with the productivity

of the manual employees in their company. Relating this evidence to that presented at the end of the previous section builds a picture that in firms where the manual employees are perceived as working well, managers are satisfied with the performance of their supervisors and supervisors are happy with the way management are handling things.

ATTITUDES TO ACTIVITY IN THE UNION

Taking Union Office

Operatives and shop stewards were asked if they would be willing to take union office at some time in the future. As Table 6.11 shows, 24% of all operatives express a willingness to become shop stewards. This is two to three times greater than the proportions reported in some other surveys (Pedler, 1973, p.49; Workplace Industrial Relations, 1968, p.58). It is also greater than the proportion of operatives who have been stewards in the past. Civil operatives are significantly less likely than operatives in each trade group except thermal insulation to be willing to become shop stewards in the future.

Table 6.11

Operatives - Expressed willingness to hold shop steward's office in the future

Trade Group	No. of Respondents	Willing to hold office in future
		%
Mechanical	(50)	38
Thermal Insulation	(14)	21
Electrical	(28)	29
Civil	(43)	7
Scaffolding	(15)	33
All	(150)	24%

7 See Appendix 3

The opportunities for labourers and mates to become stewards are extremely limited in firms where the vast majority of the labour force is skilled. This is the situation in the mechanical, thermal insulation and electrical trade groups. Here, if only craftsmen are considered, the proportion of operatives willing to become stewards rises to 46%, 27% and 33% respectively.

Of current shop stewards, 93% are willing to take the office again in the future. There are no significant differences between trade groups. Additionally, 14% of stewards would like to become union full-time officials and 7% to hold voluntary union office above branch level. For the mechanical trade group alone these figures are 23% and 14% respectively, although the differences between trade groups are not significant. Other surveys have reported between 29% to 50% of stewards being willing to hold higher union office (Goodman and Whittingham, 1969, p.93; Beynon, 1973, p.228; Clegg et al, 1961, pp.167-71; Workplace Industrial Relations, 1968, p.39).

From the above discussion, and from Table 5.10, there is a strong indication that it is the same active minority of manual workers who take shop stewards' posts again and again. This is supported by the finding that operatives who have been a steward in the past are significantly more likely than other operatives to be willing to take shop steward's office in the future. Overall, 71% of operatives with experience of the post said they would be willing to take it again, while 84% of those who have not held the post said they would never be willing to take it.

In order to investigate whether any biographical characteristics or aspects of their current employment situation distinguish operatives willing to become shop stewards from those who are not, eight possible relationships were examined. Operatives who perceive their current security of employment to be low, or who have been a supervisor at some time in the past, or whose permanent home is in the Merseyside area, are significantly more likely than other operatives to be willing to become stewards. The first relationship holds for the scaffolding trade group alone and for the sum of all trade groups, while the other two relationships hold only over the site as a whole. There is no significant relationship between willingness to become a steward and an operative's age, length of service, experience of unemployment, or the size and length of time on site of his current firm.

The willingness of operatives to become shop stewards in the future may be considered alongside their expressed willingness to become supervisors. 8% of all operatives with a possibility of promotion claim to be willing to accept either post while 42% are willing to accept neither. There is no significant relationship between willingness to accept one post and willingness to accept the other. This finding, along with that presented earlier in this chapter showing no significant difference between operatives and shop stewards in willingness to accept a supervisory post, conflicts with evidence from the literature that "ambition in employment seems to be associated with ambition in the union" (Workplace Industrial Relations, 1968, pp.12-13; see also Poole, 1974, p.63; Sayles and Strauss, 1967, pp.62-4). All that can be summarised at this stage, using the evidence already presented on promotion ambitions, is that in construction a supervisory post is often less

attractive than is the case for most industries. In construction such a post will often either be temporary or will involve moving from place to place.

Operatives were asked the reasons for their willingness or unwillingness to become stewards in the future. The minority of operatives willing to accept the post stress their general agreement with the aims of trade unionism and the importance of the steward's role in affording protection to the men.

40% of the reasons given by operatives who are unwilling to accept the post refer to the difficult and sometimes risky nature of the job. Among these are the 16% of all operatives who see the job as a thankless one and who would be unwilling to defend men with whom they disagree, and the 9% of all operatives who fear management discrimination against them (cf. McCarthy, 1966, p.37; Workplace Industrial Relations, 1968, p.121; Roberts, 1956, p.66). Electrical operatives, 21% of whom raise this latter point, are significantly more likely than operatives in other trade groups to mention the risky nature of the shop steward's job. The other major reasons given for non-acceptance are lack of interest in union affairs (30%), and personal reasons such as lack of ability or confidence (30%).

The reasons given by current shop stewards for taking office, and the reasons attributed to them by operatives, supervisors and managers, are presented in Table 6.12. The range of reasons given reflect those reported elsewhere (e.g. Goodman and Whittingham, 1969, p.93; McCarthy and Parker, 1968, p.15; Parker, 1974, p.12; Pedler, 1973, pp.49, 58).

Table 6.12

Operatives, Shop Stewards, Supervisors and Managers -
Reasons given for existing Shop Stewards taking office

Role	No. of Respondents	D.K./ None mentioned	Ability/ experience	Like to be involved	Thinks union is a good thing	Desire to help men	To bring calm to site	Good support from men	No-one else would have it	Job has to be done	Need of men for protection	Ambition to get on in Union	One of first men on job	For an easy time	For personal gain
Operative	(149)	12	42	34	3	11	7	3	18	3	7	7	3	6	-
Shop Steward	(44)	5	25	32	14	30	11	18	32	23	25	-	-	-	-
Supervisor	(45)	7	38	18	-	20	7	2	13	2	4	-	11	7	-
Manager	(28)	-	39	36	11	18	7	11	54	4	-	7	4	-	-

7 See Appendix 3

Current stewards, whose reasons do not differ between trade groups, stress on the one hand their desire to help the men and the interest of the office, and on the other hand the lack of willingness of anyone else to take the job. On this latter point, 86% of current stewards were unopposed at election and in the remaining cases only one other person stood. Other surveys report between 50% to 78% of stewards unopposed at election (Workplace Industrial Relations, 1968, p.14; Parker, 1974, p.12; Clegg et al, 1961, p.163; Pedler, 1973, p.49). Almost one half of the stewards on the Merseyside site are the first in their firm and union on this job. However, in 27% of cases the current steward replaces a previous steward who has left that employer, and in 29% of cases he has displaced a steward who no longer wanted the job or who had lost the confidence of the men.

Operatives, supervisors and managers give a greater emphasis than the stewards themselves to ability and experience. Some evidence that stewards are indeed likely to be some of the more able manual employees is given by the finding in Chapter 5 that many supervisors and managers have at one stage been stewards. Similarly it has been argued in the literature that ability is a common factor underlying both union ambition and promotion ambition (Tannenbaum and Kahn, 1958, pp.138-42; Clegg et al, 1961, p.200; McCarthy and Ellis, 1973, pp.90-1).

A minority of operatives, supervisors and managers feel that stewards have less altruistic motives for taking the job. One reason mentioned is financial gain through commission paid on union dues collected or handouts from the stewards' fund raised from a weekly levy in the mechanical trade group. Another is the increased job security they feel stewards enjoy (cf. Beynon and Blackburn, 1972, pp.132-5; Roberts, 1956, p.64).

There is no significant differences in the reasons given by the three roles. Within roles, mechanical supervisors are significantly more likely than those in any other trade group to mention the stewards' desire to help men.

Role of Shop Stewards

The amount of time a steward spends on union duties varies with, among other things, the number of members he represents, the range of duties in which he is involved, and the level of conflict which exists. At the time of the interviews, the median time spent by stewards on their duties across the whole site was half a day per week. This is similar to the average time reported in many surveys (Workplace Industrial Relations, 1968, p.16; Clegg et al, 1961, pp.154-5; Marsh et al, 1971, p.172; Parker, 1974, p.12; Goodman and Whittingham, 1969, p.93; Pedler, 1973, p.50). Mechanical shop stewards, for whom the median time is two days per week, spend significantly longer than stewards in other trade groups. In addition, 16% of all stewards spend time outside working hours on union work connected with this office. There is no significant relationship between time spent on stewards' duties on site and ambition to hold union office off-site in the future.

One characteristic of the Merseyside large site is, as described in Chapter 2, co-operation between stewards across firms and trade groups on parts of the site but not on others. 73% of all stewards are satisfied with the existing extent of contact and co-operation. Only among the mechanical stewards' sub-committee is there a strongly felt need for increased contact. Reasons advanced by those favouring increased contact stress the increase in bargaining strength it would

bring about. Those against feel increased contact would involve them too much in other people's disputes.

One important relationship of the steward is that with his members. A key aspect of this is whether he sees his role as to be purely a spokesman or to act predominantly as a leader (cf. CIR No. 17, 1971, p.14; Pedler, 1973, p.56). 23% of all stewards take the former view, feeling that they must take up with management every issue which is raised by their members. An extreme example is a civil steward who claimed that there were issues which he personally would like to raise with management, but as none of his members raised them with him, he felt that it was none of his business to do so.

The majority of stewards feel there are some issues raised by their members which the stewards should not raise with management. Overall, 55% of stewards mention issues which they regard as silly or petty, 23% mention situations where they feel the men are in the wrong, and 14% mention issues which they feel cannot be won.

A second important relationship for the steward is with the local full-time official of his union. Unlike the operatives, only 53% of whom know the name of their official and are able to comment on his performance, all stewards are able to do so. Stewards are divided equally between those regarding the performance of their official as good, moderate or poor. Criticisms centre around the difficulty of getting hold of officials and their lack of knowledge of the site and its problems.

The third main relationship of the steward is with management. A particular aspect of this which was enquired into is how straight the various parties feel the stewards in their company are in their dealings with management. Table 6.13 shows that the great majority in each role feel their stewards are open and honest. Supervisors are significantly less likely to see the stewards in this light than are the stewards themselves. Scaffolding supervisors are significantly less likely to view the stewards in their company as open and honest than are civil supervisors.

Table 6.13

Operatives, Shop Stewards, Supervisors and Managers -
Comments on "Stewards in this company are open and
honest in their dealings with the management"

Role	No. of Respondents	Agree	Disagree	Don't Know
		%	%	%
Operative	(149)	75	7	19
Shop Steward	(44)	89	11	-
Supervisor	(71)	68	20	13
Manager	(28)	75	25	-

The final aspect of the role of the shop steward to be investigated is the question of what stewards and managers feel to be the most difficult parts of a steward's job. Both parties give particular emphasis to problems of relationships. 32% of stewards mention the need to be diplomatic with men's problems and 30% the need to be diplomatic with management, while 21% stress the difficulty for the steward in convincing the rank and file that he is not 'bent'. As one mechanical steward expressed it, "You have to satisfy the men 80% and the management

20%, if you swing too far one way you're classed as militant and if you swing too far the other you're classed as 'bent'" (cf. Beynon, 1973, p.223; Liverpool University, 1954, p.141). Electrical shop stewards are significantly more likely than those in other trade groups to mention the problem of bargaining with a clever management.

Managers see the main problem of stewards as relationships with their members. 54% raise the difficulty of dealing with "hot heads" and 32% the need for the steward to convince the men he is not 'bent'. Electrical managers give significantly greater emphasis than other managers on the need for stewards to be diplomatic in dealing with them.

Evaluation of Shop Stewards

To provide an insight into supervisors' and managers' opinions on the types of men who become shop stewards, they were asked to evaluate the stewards in their company as workmen. Table 6.14 shows that well over 80% of both supervisors and managers rate their stewards as average or above average workmen. There are no significant differences between roles and trade groups. The uniformity of responses on the three performance measures is evidence on the 'halo effect' operating in the rating.

Table 6.14

Supervisors and Managers - Comparison of Shop Stewards, as Workmen, with average operative

Role	No. of Respondents	Measure of Performance	Standard of Performance		
			Above Average	Average	Below Average
Supervisor	(37)	Conscientiousness	35	49	16
		Quality	27	54	19
		Productivity	25	56	19
Manager	(26)	Conscientiousness	35	54	12
		Quality	35	54	12
		Productivity	27	62	12

The second aspect in the evaluation of shop stewards is the question of how well they are perceived as carrying out their union duties. Table 6.15 shows that the great majority of operatives, supervisors and managers are at least moderately satisfied with the way the stewards in their company are serving the interests of the operatives. This is despite the fact that few, if any, stewards have received any formal training and that the facilities available to assist them to carry out their duties are, in most companies, negligible.

Table 6.15

Operatives, Supervisors and Managers - Evaluation of performance of shop stewards from the operatives' viewpoint

Role	No. of Respondents	Good	Moderate	Poor	Don't Know
		%	%	%	%
Operative	(150)	41	37	9	12
Supervisor	(72)	35	26	6	33
Manager	(28)	75	18	7	-

Managers are significantly more likely than either supervisors or operatives to rate the stewards' performance as good. However, it must be noted that what one manager cited as evidence of good performance, namely the fact that men have not lost a lot of time through meetings, would not necessarily be rated as a favourable feature by all operatives.

Within trade groups, scaffolding operatives are significantly more likely to be satisfied with the performance of their stewards than are electrical operatives. The main complaints raised against stewards are their lack of willingness to take up issues and the allegation that they are 'bent'.

An index of operatives', supervisors', and managers' favourability towards shop stewards in their current company was constructed from several of the items discussed in this section on attitudes to activity in the union. (See Appendix 4 for details). There are no significant differences between the three roles on this index. Within roles, the only significant difference is that electrical managers have a less favourable opinion of their stewards than do mechanical managers.

ATTITUDES TO UNION INVOLVEMENT IN ASPECTS OF RULE MAKING

Recruitment and Selection

The opinions of operatives, shop stewards, supervisors and managers on the extent to which trade unions should be involved in influencing the sources of recruitment and method of selection of manual employees were collected. Findings on methods of selection are presented in Table 6.16.

Overall, shop stewards are significantly more likely than either operatives, supervisors or managers to want union involvement in employee selection. Within the mechanical trade group, shop stewards differ significantly on this measure from supervisors and managers, while mechanical operatives are significantly more likely than their supervisors to want union involvement. There are also significant differences within roles. Mechanical operatives are more likely to want union involvement than are electrical or civil operatives, and thermal insulation operatives are more likely to want this than are civil operatives. Mechanical shop stewards differ significantly on this measure from civil stewards.

Table 6.16

Operatives, Shop Stewards, Supervisors and Managers -
Opinion on ideal method of Selection

Role	Trade Group	No. of Respondents	Let Management decide %	Consult with shop steward but let management have final decision %	Union/Management joint decision %	Let Union decide %
Operative	Mechanical	(50)	30	32	16	22
	Thermal Insulation	(14)	43	43	7	7
	Electrical	(28)	75	18	7	-
	Civil	(43)	93	7	-	-
	Scaffolding	(15)	40	33	20	7
	All	(150)	59%	23%	9%	8%
Shop Steward	Mechanical	(22)	9	36	32	23
	Thermal Insulation	(4)	-	50	25	25
	Electrical	(4)	25	50	25	-
	Civil	(9)	56	44	-	-
	Scaffolding	(5)	20	40	20	20
	All	(44)	20%	41%	23%	16%
Supervisor	Mechanical	(35)	63	23	14	-
	Thermal Insulation	(4)	50	25	25	-
	Electrical	(9)	89	11	-	-
	Civil	(17)	88	12	-	-
	Scaffolding	(7)	71	29	-	-
	All	(72)	72%	19%	8%	-
Manager	Mechanical	(12)	67	33	-	-
	Thermal Insulation	(4)	75	25	-	-
	Electrical	(5)	100	-	-	-
	Civil	(4)	100	-	-	-
	Scaffolding	(3)	33	67	-	-
	All	(28)	75%	25%	-	-

7 See Appendix 3

On the sources of recruitment, the majority of operatives in the mechanical trade group and shop stewards in each trade group want to restrict this to local unemployed men. 23% of mechanical stewards wish to further restrict recruitment to the out-of-work lists produced by local union branches. With the exception of a few managers in the mechanical trade group, the vast majority of managers and supervisors, and 60% of all operatives feel that management should not be restricted in their sources of recruitment.

Reasons advanced by those operatives and shop stewards wanting influence over sources of recruitment and methods of selection hinge around ideas of fairness. 61% of shop stewards and 35% of operatives spontaneously offered the information that some vetting of names and exclusion of certain men took place in their company. In the mechanical trade group, the respective figures are 86% and 56%. Allegations of blacklisting are common in construction (e.g. Adamsen, 1972; Cameron Report, 1967, p.29). Many manual employees feel the need for union involvement as a counter against what they regard as management discrimination. Linked with this is a feeling that preference in employment should be given to unemployed men, and among some stewards that length of unemployment should be the sole criterion governing selection.

Managers and supervisors argue against union influence in this area on the grounds that it would result in them getting a less satisfactory labour force. They stress the importance of taking up references from previous employers. Beneath the 'rational' arguments there is, in many cases, a strong undercurrent of emotional assertion of managerial prerogative.

Three questions were asked in order to further explore attitudes to selection of manual employees for employment.

Table 6.17 presents opinions on whom, if anyone, should be excluded from employment on the Merseyside large site. Over the whole site, stewards are significantly more likely than operatives, supervisors or managers to feel that no-one should be excluded, and operatives are significantly more likely than either supervisors or managers to think this. Within each trade group except electrical, operatives and shop stewards differ significantly from supervisors and managers in the pattern of their responses. Within roles, thermal insulation operatives are significantly more likely than those in each other trade group to wish to exclude no-one.

A problem in interpreting these findings is that all respondents are not attributing the same meanings to common words. Perhaps the greatest difficulty is with the word 'troublemaker'. It is common in the industry for employers to express a concern to eliminate what they term as troublemakers in the selection process (e.g. Berry, 1963, p.26; Cameron Report, 1967, p.69). In this they include 'militants' and 'agitators' and often make an implicit assumption that such men are poor tradesmen. They frequently justify their decisions as being in the interests of the vast majority of their labour force who do not want their working lives disrupted and their earnings cut by the actions of these men.

The majority of operatives and shop stewards, on the other hand, distinguish between militants and troublemakers. The former are men to be admired. They are willing to stand up to management for improved terms and conditions, and often they are seen as the most capable craftsmen.

Table 6.17

Operatives, Shop Stewards, Supervisors and Managers -
Opinion on exclusion of people from employment on Merseyside Site

Trade Group	Role	No. of Respondents	Exclude no-one %	Exclude Troublemakers %	Exclude poor workmen/ bad timekeepers %	Men are often wrongly classed as troublemakers %	D.K. %
Mechanical	Operative	(50)	56	22	24	40	7
	Shop Steward	(22)	68	7	31	36	-
	Supervisor	(35)	14	63	51	29	-
	Manager	(12)	-	67	75	17	-
Thermal Insulation	Operative	(14)	79	7	-	7	-
	Shop Steward	(4)	25	-	25	-	50
	Supervisor	(4)	25	50	50	-	-
	Manager	(4)	-	100	75	-	-
Electrical	Operative	(28)	46	32	25	29	7
	Shop Steward	(4)	25	50	25	50	-
	Supervisor	(8)	38	38	50	38	-
	Manager	(5)	-	100	-	20	-
Civil	Operative	(43)	35	42	23	9	14
	Shop Steward	(9)	56	22	22	33	-
	Supervisor	(17)	12	71	41	-	-
	Manager	(4)	-	100	50	-	-
Scaffolding	Operative	(15)	40	27	7	7	20
	Shop Steward	(5)	40	-	60	-	-
	Supervisor	(7)	-	43	100	-	-
	Manager	(3)	-	67	33	-	-
All	Operative	(150)	44%	29%	21%	24%	9%
	Shop Steward	(44)	53%	11%	31%	29%	4%
	Supervisor	(71)	16%	59%	54%	18%	-
	Manager	(28)	-	82%	54%	11%	-

7 See Appendix 3

The latter are a small minority, and include poor workmen who hide behind trade union organization. Several stewards said they would not push for the employment of such men.

The belief or otherwise in the existence of men who can disrupt a site without there being a genuine grievance is the second area to be explored. Managers in the construction industry in general are particularly prone to attributing a high strike incidence to the work of political extremists (Wearne, 1972, p.3; Cameron Report, 1967, especially pp.8-10, 58). Table 6.18 shows that, for the Merseyside site, managers are significantly more likely than either operatives, shop stewards or supervisors to believe in the existence of such agitators, and that supervisors are more likely than stewards to believe in them.

Table 6.18

Operatives, Shop Stewards, Supervisors and Managers -
Comments on "Agitators do exist and can swing a site
without a genuine grievance"

Role	No. of Respondents	Agreeing
Operative	(150)	43%
Shop Steward	(44)	25%
Supervisor	(69)	51%
Manager	(28)	79%

For operatives and supervisors, there is a significant relationship between the perceived existence of agitators and a wish to exclude 'troublemakers' from employment. The absence of significant relationships for shop stewards and managers are probably due to the homogeneity of views within each role.

Table 6.19

Operatives, Shop Stewards, Supervisors and Managers -
 Comments on 'A good worker is hardly ever out of a job'

Role	Trade Group	No. of Respondents	Comments supporting Management				Comments suspecting Management				Don't know
			Agree	Agree if he will travel	Disagree because of Unions	All comments supporting management	Disagree because of discrimination	Disagree because of unemployment	All comments suspecting management	Don't know	
Operative	Mechanical	(50)	12%	-	8%	20%	60%	30%	80%	-	
	Thermal	(14)	29%	-	-	29%	7%	43%	71%	-	
	Insulation	(28)	43%	-	-	43%	39%	18%	57%	-	
	Electrical	(43)	37%	-	7%	40%	-	-	-	60%	
	Civil Scaffolding	(15)	53%	-	-	53%	33%	20%	47%	-	
Shop Steward	All	(150)	31%	-	3%	34%	31%	19%	49%	17%	
Supervisor	All	(44)	32%	-	-	32%	16%	16%	68%	-	
Manager	All	(72)	68%	1%	4%	73%	6%	11%	27%	-	
Manager	All	(28)	46%	11%	7%	64%	11%	21%	36%	-	

7 See Appendix 3

The third and final aspect of union involvement in recruitment and selection to be examined concerns attitudes to recruiting unemployed men. As Table 6.19 shows, supervisors and managers are both significantly more likely than either operatives or shop stewards to think that a good worker is hardly ever out of a job. This may be the underlying rationale for the typical resistance of managements to the recruitment of unemployed men.

Within trade groups, mechanical operatives differ significantly from their supervisors and managers on this measure and electrical and civil operatives from their supervisors. Within roles, scaffolding operatives are significantly more likely than mechanical operatives to think that a good worker is hardly ever out of a job.

Redundancy

Operatives', shop stewards', supervisors' and managers' preferences on the method of selecting individuals to be made redundant should this prove necessary, are presented in Table 6.20. Overall, shop stewards are significantly more likely than members of any of the other three roles to prefer a seniority based system, while operatives are significantly more likely than either supervisors or managers to prefer such a system. Within trade groups, there are significant differences on this factor between both mechanical and thermal insulation operatives and shop stewards and their respective supervisors and managers, between electrical stewards and their supervisors and managers, and between scaffolding operatives and stewards and their supervisors. Within roles, civil operatives are significantly less likely than operatives in any other trade group to favour a seniority

Table 6.20

Operatives, Shop Stewards, Supervisors and Managers - Preferred system in the event of a redundancy

Role	Trade Group	No. of Respondents	First in - last out without exception	Dismiss bad Timekeepers/ workers then first in - last out	Go along with first in - last out	Let Management decide
			%	%	%	%
Operative	Mechanical	(50)	62	14	12	12
	Thermal Insulation	(14)	64	-	7	21
	Electrical	(28)	43	-	7	54
	Civil	(43)	19	7	16	60
	Scaffolding	(15)	46	20	7	20
	All	(150)	45%	8%	12%	35%
Shop Steward	Mechanical	(22)	90	7	7	-
	Thermal Insulation	(4)	50	50	-	-
	Electrical	(4)	75	-	-	25
	Civil	(9)	22	22	22	33
	Scaffolding	(5)	80	-	20	-
	All	(44)	70%	11%	9%	9%
Supervisor	All	(72)	4%	11%	6%	81%
Manager	All	(28)	-	4%	4%	93%

7 See Appendix 3

system, and electrical operatives are less likely than mechanical operatives to do so. Civil shop stewards are significantly less likely than either mechanical or scaffolding stewards to favour seniority.

Reasons advanced by those in favour of seniority are that it is fair, that it lets men know where they stand, that it eliminates victimisation of individuals by management, and that it affords security to older men. Some operatives and stewards refine these arguments and add that seniority over redundancy is really only satisfactory where recruitment and selection follows seniority on an out-of-work list, where any so-called 'exceptional' cases are dealt with before redundancy, and where there are safeguards against false redundancies to prevent management cutting deep to get rid of an individual.

Reasons advanced in favour of letting management decide who should be made redundant are that management knows who are the good workers and who are the lazy and the troublemakers. Retention of men in the first category is argued as being both in the commercial interests of the firm and fairest to the good workers. 21% of operatives and 18% of stewards admit to some of the shortcomings of seniority, but nevertheless feel it necessary as a protection against management discrimination.

Preferences of members of each of the four roles on selection system and redundancy system were cross tabulated. Operatives who prefer union involvement in selection are significantly more likely than other operatives to favour a seniority redundancy system. The absence of significant relationships for stewards, supervisors and managers is probably due to the much greater homogeneity of opinions within each role on the two measures.

Satisfaction with Existing Amount of Union Involvement

In order to investigate their satisfaction with the existing amount of union involvement in their firm and their future goals, operatives and shop stewards were asked if there are any issues over which they would like to be able to influence management but currently do not do so.

76% of operatives raised no additional issues. Condition money and bonus is the only issue raised by a sizeable proportion of operatives (11%).

They favour short-term flexibility at local level.

Table 6.21

Shop Stewards - Opinion on issues they should be able to influence management over, but are unable to do so

No. of Respondents = 44			
No Issues	32%	Organisation of work	23%
Contractual arrangements	11%	Condition money/ bonus payments	14%
Recruitment	11%	Travel payments	11%
Security of employment	11%		

68% of shop stewards have additional issues they wish to influence management over, as Table 6.21 shows. There are no significant differences between trade groups. Many stewards argue that they do not want to tell management how to run its business, but that more openness over financial and contractual details could lead to a more co-operative relationship if the men could really be shown to be getting their fair share.

Table 6.22

Supervisors and Managers - Opinion on issues shop stewards
raise which are none of their business

Role	No. of Respondents	None	Selection of labour	Organisation of work	Financial Arrangements
		%	%	%	%
Supervisor	(72)	68	13	24	7
Manager	(28)	68	11	25	4

Table 6.22 shows that the majority of supervisors and managers have no objections to the range of issues which their stewards raise. This illustrates the typically passive role of managements over union involvement. In both the selection of labour and redundancy areas, they tend to accept the current system even where this is not their preferred system.

Although there are no differences between trade groups for supervisors, mechanical managers are significantly more likely than those in all the other trade groups to object to some issues raised by the stewards. Objections are at two levels. At a fundamental level there are questions of managerial prerogative and of bargaining power. At a practical level, a minority of managers are working under considerable pressure and object to the time taken up by what they regard as trivial points raised by the stewards.

Index of Attitudes to Union Involvement

Measures of operatives', shop stewards', supervisors', and managers' attitudes to recruitment and selection, redundancy, and existing amount of union involvement were combined into a single index. (See Appendix 4 for details.)

Summed over all trade groups, and for the mechanical trade group alone, shop stewards are significantly more likely to favour a higher degree of union involvement than are operatives, supervisors or managers. Thermal insulation stewards favour more union involvement than do thermal operatives, electrical stewards more than their supervisors and managers, and scaffolding stewards more than their operatives or supervisors.

Within roles, civil operatives are significantly likely to favour less union involvement than mechanical or electrical operatives, and civil stewards less than those in the mechanical, electrical or scaffolding trade groups.

ATTITUDES TO CONFLICT

Fairness of the Existing General Industrial Relations System

As a first measure of the perceived fairness of the existing industrial relations system, operatives, shop stewards, supervisors and managers were asked to comment on the statement, "All negotiations are biased in management's favour". Findings are presented in Table 6.23. Those seeing an equal balance are taken as ascribing fairness to the existing system.

Summed over all trade groups, shop stewards are significantly less likely than members of any other role to perceive an equal balance, and operatives are significantly less likely to do so than either supervisors or managers. Within trade groups, each of mechanical, thermal insulation and electrical operatives and shop stewards are significantly less likely to see an equal balance than the supervisors

Table 6.23

Operatives, Shop Stewards, Supervisors and Managers -
 Comment on 'All negotiations are biased in Management's favour'

Role	Trade Group	No. of Respondents	Agree %	Can't Generalise %	It is 50/50 %	Disagree- biased in unions' favour %	Don't Know %
Operative	Mechanical	(50)	56	/	22	/	14
	Thermal Insulation	(14)	50	/	43	-	-
	Electrical	(28)	36	-	36	/	21
	Civil	(43)	26	/	44	/	23
	Scaffolding	(15)	40	-	47	/	/
	All	(150)	41%	3%	35%	4%	16%
Shop Steward	All	(43)	67%	9%	19%	2%	5%
Supervisor	All	(72)	15%	1%	71%	14%	-
Manager	All	(28)	-	11%	64%	29%	-

/ See Appendix 3

or managers in their respective trade groups. Civil stewards are less likely to do so than civil operatives, supervisors or managers. Within roles, mechanical operatives are significantly less likely than civil operatives to see a fair balance in negotiations. For those in each role who perceive some bias, operatives and shop stewards are significantly more likely than supervisors or managers to see the bias as being in management's favour.

This measure was combined with responses to the statement, "A good worker is hardly ever out of a job", presented in the previous section, to form an index of perceived fairness of the existing industrial relations system. (See Appendix 4 for details of index.)

On this index, over the whole site, both operatives and shop stewards are significantly more likely than either supervisors or managers to see the existing system as unfair. Within trade groups, mechanical operatives differ significantly from their supervisors and managers on this index, mechanical and scaffolding stewards differ from their respective supervisors, and thermal and electrical operatives from their supervisors. Within roles, civil operatives are significantly more likely to see the system as fair than are mechanical, thermal insulation or electrical operatives.

Unconstitutional Industrial Action

As a preliminary to investigating their attitudes to unconstitutional industrial action, the extent to which operatives, shop stewards and managers are acquainted with the formal disputes procedure in their company was tested. Over 90% of managers and 86% of stewards have a reasonable knowledge of procedure, but 61% of operatives have no

knowledge of it at all. The difference between operatives and the other roles is significant both across the whole site and for the mechanical group alone. There are no significant differences between trade groups. The lack of knowledge of operatives of disputes procedure is of a similar magnitude to that reported in other surveys on large sites (e.g. Berry, 1963, p.47; NEDO, 1970a, p.100).

In investigating attitudes to manual employees taking immediate direct industrial action in breach of disputes procedure, the question was phrased according to the respondent's knowledge of procedure. However, in all cases the same sentiment was being tested.

Qualitatively, one impression is the general normality attributed to strikes as a means of settling differences. Another is the feeling among many operatives and shop stewards, including men intellectually aware of the formal procedure, that there is a natural and fair sequence to be followed when a grievance occurs. This is for the steward to raise the matter with management, and then failing a quick settlement and assuming the matter is felt to be important enough, for the employee to take some form of industrial action.

Quantitative evidence on attitudes to immediate industrial action is presented in Table 6.24. Surprisingly perhaps, 43% of managers feel there are circumstances where manual employees are justified in taking such action. However, if the don't knows are ignored, shop stewards are significantly more likely than managers to condone unconstitutional industrial action. Within roles, a significantly smaller proportion of civil operatives (6%) feel it is sometimes justified to break procedure than is the case for operatives in each other trade group. The findings

Table 6.24

Operatives, Shop Stewards and Managers -
Circumstances when they think it is justified for employees to
take immediate direct industrial action in breach of procedure

Role	No. of Respondents	Never justified %	Over unfair dismissal %	When Management break agreement %	When Management slow to decide %	Because procedure is biased %	To keep good IR %	To enable men to gain advantage %	Don't know %
Operative	(150)	21	7	8	5	7	5	13	43
Shop Steward	(44)	14	14	16	11	16	30	9	20
Manager	(28)	57	7	-	4	-	32	-	-

presented in Table 6.24 are of a similar magnitude to those reported in other surveys (e.g. Workplace Industrial Relations, 1968, pp.35, 66, 130; Parker, 1974, pp.69-70, A37).

Managers who condone breaches of procedure most often argue on the grounds that outcomes and working relationships are more important than a legalistic interpretation of agreements. Many managers in the mechanical trade group, for example, feel that rather than restricting meetings to the last hour of the day, or insisting they be held off site, as provided for under the site agreement, a quick meeting on site will have less detrimental effects on productivity and will give the best chance for an issue to be resolved.

Stewards similarly often argue that the delays inherent in procedure inflame situations and lead to frustration. To this they add that procedure, since it contains no status quo provision, is biased in management's favour because it acts to keep men at work. The 16% of stewards who mention management breaches of agreement as a justification for direct action are often thinking not only of written agreements but also of custom and practice.

ATTITUDES TO CLIENT INFLUENCE

There are two main difficulties for respondents in evaluating the extent of the client's influence over the day-to-day conduct of industrial relations by contractors on the site. Several operatives, shop stewards and supervisors are unsure whether the information their management give them on the client's role is fact or is exaggerated in order to give the company an excuse for behaving in a certain way. They suspect that

firms try to shift the blame for unpopular actions onto the client.

A parallel case existed with the Docks Labour Scheme (Liverpool University, 1954, pp.92-3). The second difficulty, and this applies mainly to managers, is the interpretation of advice from the client. There seems little doubt that some contractors treat advice as instruction. The pressures to do this are the strongest in companies whose prosperity is most dependent on a continuing good relationship with the client.

With these limitations in mind, there is a feeling among all roles on site that the client does exert influence. 34% of all operatives, 66% of all shop stewards, 25% of all supervisors, and 39% of all managers feel the client exerts a lot of influence. Shop stewards differ significantly from each of the other roles on this, and operatives differ significantly from supervisors. Summed over all roles by trade group, about one half of the respondents in each of the mechanical, thermal insulation, electrical and scaffolding groups feel that the client exerts a lot of influence, while in the civil trade group a significantly smaller proportion (only 7%) feel this.

Areas in which the client is mentioned as having a lot of influence include recruitment and selection, where there is a feeling that the client vets names before individuals can be employed on site, the level of bonus payments, and tactics to be adopted during disputes.

Approximately 85% of operatives, supervisors and managers think it is legitimate for the client to exert the amount of influence which it is perceived as doing. A significantly smaller proportion of stewards (67%) think this. Operatives who perceive the client as having a lot of influence in their company are significantly more likely than other operatives to think this is illegitimate.

The general argument for the legitimacy of client influence is that as he pays for the project, it is acceptable and normal that he should 'call the tune'. Some mechanical stewards favour client influence for instrumental reasons and try to use the client to alter the behaviour of their individual managements. Arguments against client influence centre around what is seen as interference in the internal affairs of contractors.

Managers and supervisors were asked how helpful to good industrial relations they found client influence. The responses do not differ significantly by role or trade group. Overall, 42% of managers feel the client is always helpful, 33% feel the client is generally too weak and advises giving in to the men too easily, and 25% feel the client is too rigid. Supervisors and managers who feel that client influence is legitimate are significantly more likely to feel that client interventions are helpful.

DESCRIPTIVE FINDINGS: CHARACTERISTICS OF FIRMS ON THE
MERSEYSIDE LARGE SITE

INTRODUCTION

In this chapter the main characteristics of the twenty six firms of contractors in the five trade groups on the Merseyside large site are described. Their structural characteristics are presented first. Then the amount and form of conflict exhibited in these firms is described using the measures of strikes, voluntary absenteeism, voluntary labour turnover, productivity and accidents. Comparative findings from other studies on these conflict measures are introduced and links between the five measures are examined. Finally, the amount of union involvement in recruitment and selection, redundancy and organisation of work is described.

STRUCTURAL CHARACTERISTICS

The principal structural characteristics of the twenty six contracting companies in the study are presented in Table 7.1. The figures summarising the overall position in each trade group are derived as follows. For number of employees, time of firm on site and manager's time in post, the arithmetic mean of the figures for individual firms is presented. For age of operatives and their length of service, the figures presented are weighted means based on the average size of each firm's labour force. Occupational mix and permanent home distributions are derived from population figures.

Table 7.1

Principal Structural Characteristics of Firms

Firm	Continuous time on site (1)	Average number of manual employees (2)	Median age of manual employees (1)	Median length of service of manual employees (1)	Maximum number of trade unions for manual employees	Security of employment of manual employees (3)	Home of Manual Employees (2)				Occupational mix of Manual Employees (2)			Proportion in largest single skilled/semi-skilled occupation (2)	Security of employment of supervisors (3)	Status of supervisors (4)	Manager's time in post (1)
							Greater Merseyside	North Wales	Other	Paid lodging allowance	Craftsmen	Semi-skilled	Labourers				
Mech. 1	20	75	40	1.3	5	S	90	5	5	0	84	0	16	24	S	St	0.5
Mech. 2	1.8	235	39	0.7	5	I	94	4	2	4	84	0	16	38	I	HP	0.8
Mech. 3	2.5	180	42	0.2	5	I	63	16	21	8	87	0	13	40	I	HP	2.5
Mech. 4	3.5	10	40	5.2	1	S	100	0	0	0	100	0	0	83	S	St	2.8
Mech. 5	6	50	35	0.5	2	S	95	0	5	0	89	0	11	75	S	HP	2
Mech. 6	1.3	35	32	1.1	4	S	93	4	3	0	78	0	22	30	S	HP	0.5
Mech. 7	25	75	46	6.8	4	S	92	5	3	0	74	0	26	38	S	HP	25
Mech. 8	5	20	30	3	2	I	6	6	88	88	94	0	6	88	I	HP	4
Mech. 9	2	10	35	2.2	1	I	0	0	100	0	100	0	0	90	I	HP	2
Mech. 10	5.5	105	40	3	3	S	80	5	15	3	81	0	19	30	S	HP	5.5
All Mech.	7.3	80	40	1.3	-	-	81	8	11	6	85	0	15	40	-	-	4.5
Thermal 1	6	40	30	1.8	2	I	93	0	7	0	77	0	23	50	S	HP	6
Thermal 2	30	20	33	2.7	2	S	87	0	13	9	79	0	21	36	S	HP	7
Thermal 3	4	15	29	2	2	S	100	0	0	0	88	0	12	38	S	HP	1.5
Thermal 4	10	40	30	1.8	2	S	75	0	25	0	82	0	18	45	S	HP	2.5
All Thermal	12.5	29	31	1.8	-	-	90	0	10	2	80	0	20	45	-	-	4.3

- NOTES (1) At mid-point of interviewing programme
(2) Average over two year period ending three months after termination of interviewing programme
(3) Perceived opportunity for 2 or more years work with employer classed as secure (S);
Perceived opportunity for less than 2 years work with employer classed as insecure (I)
(4) St = Staff status; HP = Hourly paid.

Table 7.1 (Cont.)

Principal Structural Characteristics of Firms

Firm	Continuous time on site (1) (yrs)	Average number of manual employees (2)	Median age of manual employees (1) (yrs)	Median length of service of manual employees (1) (yrs)	Maximum number of trade unions for manual employees	Security of employment of manual employees (3)	Home of Manual Employees (2)				Occupational mix of Manual Employees (2)			Proportion in largest single skilled/semi skilled occupation (2) %	Security of employment of supervisors (3)	Status of supervisors (4)	Manager's time in post (1) (yrs)
							Greater Merseyside	North Wales	Other	Paid lodging allowance	Craftsmen	Semi-skilled	Labourers				
Elec. 1	0.3	55	30	0.3	1	I	40	3	57	28	65	0	35	65	S	St	0.3
Elec. 2	5	65	27	4	1	S	7	0	93	90	89	0	11	89	S	St	5
Elec. 3	18	35	25	2	1	S	63	12	25	0	100	0	0	65	S	St	12
Elec. 4	8	10	26	1.8	1	S	100	0	0	0	100	0	0	100	I	HP	1.5
Elec. 5	4	15	29	2.1	1	S	100	0	0	0	100	0	0	55	S	HP	0.8
All Elec.	7	36	29	2.2	-	-	42	4	54	36	84	0	16	71	-	-	4
Civil 1	20	395	41	3.3	2	S	38	47	15	0	13	2	85	7	S	HP	15
Civil 2	30	245	45	12	2	S	69	17	14	0	20	4	76	13	S	HP	0.8
Civil 3	6	75	21	1.3	1	S	0	0	100	0	0	0	100	0	S	HP	2.3
Civil 4	3.5	75	38	4	2	S	4	92	4	0	45	4	51	41	S	HP	2.3
All Civil	15	198	40	5.8	-	-	37	37	26	0	16	2	82	10	-	-	5
Scaff. 1	0.3	5	30	2	1	S	100	0	0	0	0	67	33	67	S	St	0.3
Scaff. 2	15	35	35	2.1	1	S	100	0	0	0	0	70	30	70	S	HP	0.8
Scaff. 3	10	40	36	1.1	1	I	93	0	7	0	0	72	28	72	I	HP	0.3
All Scaff.	8.5	27	35	1.6	-	-	97	0	3	0	0	71	29	71	-	-	0.5

- NOTES (1) At mid-point of interviewing programme
 (2) Average over two year period ending three months after termination of interviewing programme
 (3) Perceived opportunity for 2 or more years work with employer classed as secure (S); Perceived opportunity for less than 2 years work with employer classed as insecure (I)
 (4) St = Staff status; HP = Hourly Paid.

The table illustrates the great differences between firms. Their time on site ranges between a few months and thirty years and their size between five and almost four hundred manual employees. The median length of service of manual employees ranges between a few months and the remarkable figure of twelve years, while the longest serving manager has been twenty five years in post on site.

The highest stability of employment is found in firms mech.7 and civil 2. In contrast the two largest firms in the mechanical trade group recruit their manual workers and supervisors for a single short contract on site.

Firms which are shown as drawing much of their labour forces from areas other than Merseyside or North Wales, and yet as paying no lodging allowance, often recruit from the firm's area of origin. This may be up to two hours travelling time from the site. For example, firm mech.9 draws its labour force from Preston and firm civil 3 draws its from Manchester.

For the figures of occupational mix, the tradition of the site is followed and rigger-erectors in the mechanical trade group are classed as craftsmen whereas scaffolders are classed as semi-skilled. The dominant occupations in the mechanical trade group are rigger-erectors in five firms, pipefitters in four firms, and welders in firm mech.7. Ladders dominate the thermal insulation trade group. In the electrical trade group apprentices, although entered as craftsmen in the occupational breakdown, are not included with skilled electricians when computing the largest single skilled occupation. The numerically dominant tradesmen in the civil trade group are joiners.

Table 7.2

Domestic Strike Figures, by Firm and Trade Group

Firm	Man-days lost per 1000 employees (annually)	Number of separate stoppages per 1000 employees (annually)	Firm	Man-days lost per 1000 employees (annually)	Number of separate stoppages per 1000 employees (annually)
Mech. 1	4,300	33	Elec. 1	13,600	255
Mech. 2	11,300	34	Elec. 2	100	8
Mech. 3	6,000	31	Elec. 3	0	0
Mech. 4	0	0	Elec. 4	0	0
Mech. 5	3,000	70	Elec. 5	1,200	33
Mech. 6	1,500	43	All Elec.	2,300	79
Mech. 7	0	0			
Mech. 8	0	0	Civil 1	50	3
Mech. 9	0	0	Civil 2	50	2
Mech.10	0	0	Civil 3	0	0
All Mech.	5,400	15	Civil 4	0	0
			All Civil	50	1
Thermal 1	1,000	38			
Thermal 2	800	25	Scaff. 1	0	0
Thermal 3	2,900	100	Scaff. 2	6,300	57
Thermal 4	4,600	75	Scaff. 3	10,300	163
All Thermal	2,400	41	All Scaff.	8,300	85

Strikes

The distinction between domestic and non-domestic strikes has been made in Chapter 4. Statistics of domestic strikes occurring in each firm on the Merseyside large site are presented in Table 7.2, and non-domestic strike statistics are presented in Table 7.3.

Table 7.3

Non-Domestic Strike Figures

Trade Group	Man-days lost per 1000 employees (annually)	Number of separate stoppages per 1000 employees (annually)
Mechanical	5,000	4
Thermal Insulation	6,200	41
Electrical	1,900	8
Civil	14,200	3
Scaffolding	17,300	60

In comparing strike figures between firms, it needs to be borne in mind that the significance of stoppages varies according to circumstances. A series of short strikes is often more damaging to a firm than one longer stoppage. A strike that is announced ahead allows management to plan to minimise the consequences. A strike which, even if it involves only a few men, results in a picket of the refinery gates can cause a lot of disruption to other contractors and to the client. A strike at a critical point in the production cycle can delay contracts and result in lay-offs at other contractors. A strike in a service trade such as welding can have consequences for other operatives within that company. Finally, a small firm with most of its employees

on the Merseyside site and in an insecure financial position is hit much harder by a strike than a larger company.

The strike figures for the mechanical, thermal insulation and electrical trade groups are much higher than the Department of Employment estimates - calculated on the basis described in Chapter 4 - for these trades on large sites in general. These latter figures show, for the period 1964-8, an average annual loss of 911 man days per 1000 employees, and an average strike frequency of 1.3 stoppages per 1000 employees. Nevertheless, individual projects in this survey exhibited losses as high as 15,000 man-days per 1000 employees annually (NEDO, 1970a, pp.103-7; see also NEDO, 1976, p.20).

Man-days lost per 1000 employees due to domestic strikes on the Merseyside large site may be compared with the average annual figures for the Llanwern site for the period 1961-2. The Llanwern loss for mechanical trades, 3,800, is slightly lower than the Merseyside figure, but the loss of man-days among electrical contractors on Llanwern, about 14,500, is much higher than the comparable Merseyside figure (Berry, 1963, pp.68-9). Comparisons may also be made with the Alcan smelter site at Lynemouth. Here the annual strike loss for the mechanical and electrical contractors due to both domestic and non-domestic disputes was approximately 23,800 man-days per 1000 employees (CIR No.29, 1972, pp.8-9). This is considerably greater than the loss on the Merseyside site. Strike losses for the ICI Wilton site in the mid 1960s were about one half of those on the Merseyside site (Wearne, 1970, p.31).

Some indication of the relative low proneness of the civil trade group to domestic strikes, and the high proneness of the scaffolding trade group to such stoppages, is given by comparison with strike figures for

the construction industry as a whole. The industry is numerically dominated by the building trades. In the early 1970's, domestic strike losses were in the range 125-200 working days per 1000 employees annually (D E Gazette, August, 1974, p.710). The high non-domestic strike losses in these trade groups on the Merseyside site is due to the national building strike in 1972.

The stated causes of disputes and their characteristic forms give the flavour of the Merseyside site. Domestic strikes are predominantly of $\frac{1}{2}$ day to 3 days duration and are predominantly unconstitutional. This latter fact is confirmed by the stewards, 73% of whom over the whole site, and 82% in the mechanical trade group alone, admit having taken immediate direct action in breach of grievance procedure. Furthermore, although all disputes procedures on site formally require matters to be raised with the foreman as the first stage, this is by-passed almost without exception (cf. McCarthy and Parker, 1968, p.24; Parker, 1974, p.38; Pedler, 1973, p.51).

The most frequent stated cause of domestic strikes in the mechanical, thermal insulation and electrical trade groups is bonus. Low bonus often leads to protest meetings and to stoppages, and this may escalate with further strikes taking place over the question of pay lost during these protests. Bonus has been reported as a frequent cause of strikes on other large sites (e.g. Berry, 1963, p.69; CIR No. 29, 1972, p.10; NEDO, 1970a, p.42). Of course it may well be that a bonus scheme just provides a convenient handle on which to hang discontent which exists anyway. Indeed, the firms which have most stoppages over low bonus also have most domestic strikes for other stated reasons.

The second major cause of domestic strikes in all trade groups except the civil group concerns challenges to managerial authority. A frequent problem is that of working during inclement weather. Typically management consider conditions suitable for working to take place, the men refuse, and arguments arise over payment for time lost. Other examples include disputes over refusal of operatives to accept instruction from foremen who are not considered to be in the correct union, disputes over mobility of labour, and disputes over sanctions imposed for clocking offences, timekeeping, alleged theft, and drunkenness. In firms elec 1, thermal 4, and scaff 2 and 3, there were major disputes over whether certain working conditions were safe, and over who should be the judge of this.

Related to such challenges are strikes over union involvement in aspects of rule making. Firm mech 2 experienced a major dispute over recruitment. The issues involved were the numbers to be employed on the contract, the source of recruitment and the employment of certain named individuals. Firms mech 1 and mech 5 both experienced strikes over alleged victimisation in redundancy. In the first firm, the matter was complicated by an argument over the ratio of craftsmen to mates to be retained in the labour force. Firm mech 6 had a short strike against the fabrication of parts off-site.

Other reasons for domestic strikes include the following. In each trade group, a few domestic strikes were protests against poor amenities or interruptions of facilities such as water supplies. There were a few demarcation disputes in the mechanical trade group, often as a result of the CEU claiming work done by other unions. Firm elec 1 experienced a number of stoppages over differences in terms and conditions of employment between it and its main contractor firm mech 2. For example, the former had six minutes less daily standard lost time.

Turning now to non-domestic strikes, the major loss of man days arises from the national building strike of 1972, when the civil engineering and scaffolding trade groups were out some six weeks. For other trade groups, most of the losses are attributable to day or half day token and sympathy stoppages, mainly over unemployment and the Industrial Relations Act, 1971. These were concentrated in the mechanical, thermal insulation and scaffolding trade groups. In addition these trade groups each have a tradition of leaving the site for a day if a member of their trade employed on the site dies (cf. Dunlop, 1970, pp. 148-9).

Among other reasons for non-domestic strikes are the following. The thermal insulation trade group had a series of one day stoppages for a revision of bonus norms to bring their average earnings up to those in the mechanical trade group. The electrical trade group lost a little time over a claim for parity of rates with the Alcan site at Lynemouth. Finally, scaffolders on site struck for a week in protest at the use of 'Easifix' scaffolding for simple jobs, and for a couple of days against a client attempt to introduce onto the site a firm employing TGWU scaffolders.

Voluntary Absenteeism

Voluntary absenteeism by site operatives on the Merseyside site, as a percentage of the potential number of working days, is presented in Table 7.4. Time lost due to men absenting themselves without a reason considered valid by their employer is higher than the estimate for all large sites in the U.K. in 1966 of 2.5% (Wearne, 1970, p.10). It is however, much lower than the 15% lost hours figure reported for some British large sites (NEDO, 1976, p.20). The Merseyside figures

Table 7.4
Voluntary Absenteeism, by Firm and Trade Group

Trade Group	Firm	Voluntary Absenteeism (% p.a.)	Trade Group	Firm	Voluntary Absenteeism (% p.a.)	
Mechanical	Mech. 1	2.4**	Electrical	Elec. 1	-	
	Mech. 2	5.8*		Elec. 2	0.05	
	Mech. 3	1.8*		Elec. 3	n	
	Mech. 4	n		Elec. 4	1.0	
	Mech. 5	1.0**		Elec. 5	5.0	
	Mech. 6	0.4*		All Elec.	All Elec.	0.8%
	Mech. 7	0.05				
	Mech. 8	n				
	Mech. 9	1.0				
	Mech. 10	2.5				
Thermal Insulation	All Mech.	3.2%	Civil	Civil 1	2.6*	
	Thermal 1 Thermal 2 Thermal 3 Thermal 4	7.1* 9.0 4.0** 5.0**		Civil 2	5.0	
				Civil 3	16.0	
				Civil 4	0.5	
			All Civil	4.8%		
	Thermal Insulation	All Thermal	6.9%	Scaffolding	Scaff. 1	n
					Scaff. 2	3.8**
					Scaff. 3	9.0
	All Thermal		6.9%	All Scaff.		6.5%

NOTES: * Average over previous 1 year
 ** Average over previous 5 months
 n Negligible (according to contractor)

are, overall, similar to the average figure of voluntary absenteeism in coal mining which has been given as 5.7% (Samuel, 1969, p.12; but see also Fryer, 1974, p.53, for a much higher figure for mining).

Voluntary absenteeism on the Merseyside site is highest on Mondays and Fridays, and in some trades there is something of a tradition of "early days" here (cf. Baldamus, 1961, p.23). Firm thermal 2, for example, averaged 12% absence on Mondays, with a peak voluntary absenteeism of 25% on this day. This may be compared with coal mining, where as many as 40% of faceworkers in certain pits may be missing on early Monday and late Friday shifts (Fryer, 1974, p.53).

Absenteeism levels may also vary with the progress of contracts. In firm mech 2, for example, average levels of absenteeism rose towards the end of the contract.

Overall, voluntary absenteeism on the Merseyside large site resulted in the loss of more man-days than did domestic strikes.

Voluntary Labour Turnover

Table 7.5 shows the percentage of site operatives in each firm on the Merseyside site leaving their employer without being dismissed or made redundant. These low figures can be contrasted with the experience of one large contractor on the ICI Wilton site where voluntary labour turnover was 7% per week (Wearne, 1970, p.31).

The overall low level of the Merseyside figures can be accounted for by restrictions in the internal labour market on site, and by the limited alternative employment opportunities in the area. In the former category fairly standard terms and conditions of employment within

Table 7.5

Voluntary Labour Turnover, by Firm and Trade Group

Trade Group	Firm	Voluntary Labour Turnover (% p.a.)
Mechanical	Mech. 1	0
	Mech. 2	18.2
	Mech. 3	18.6*
	Mech. 4	-
	Mech. 5	5.0*
	Mech. 6	0
	Mech. 7	3.2
	Mech. 8	0
	Mech. 9	15.0
	Mech.10	n
	All Mech.	12.2%
Thermal Insulation	Thermal 1	6.0*
	Thermal 2	26.0
	Thermal 3	10.0*
	Thermal 4	2.7*
	All Thermal	10.7%

Table 7.5

Trade Group	Firm	Voluntary Labour Turnover (% p.a.)
Electrical	Elec. 1	-
	Elec. 2	12.0
	Elec. 3	n
	Elec. 4	28.0
	Elec. 5	10.0
	All Elec.	9.4%
Civil	Civil 1	22.0
	Civil 2	11.0
	Civil 3	29.0
	Civil 4	0.8
	All Civil	18.5%

NOTES: * Average over previous 1 year
n Negligible (according to contractor)

trade groups; coupled with rulings imposed by unions, and in some cases employers, that there should be a gap of several weeks between leaving one firm on site and joining another, severely limit inter-firm mobility.

The level of labour turnover is highest in the civil group. This offers the greatest security of employment. In the more insecure trade groups the predominantly short service men tend to wait to be made redundant.

There are fairly wide fluctuations in voluntary labour turnover over time. In firm mech 2, for example, turnover fell from over 20% p.a. to 13% p.a. as the contract approached completion and as the number of disputes decreased. In firm civil 1, voluntary labour turnover averaged 36% in 1970, 19% in 1971 and 10% in 1972. During this period the company's labour force on site was successively reduced by a series of redundancies.

Productivity and Accidents

Both these measures of unorganized conflict are, as noted in Chapter 4, most meaningfully used in making comparisons between firms engaged in similar kinds of work and are more strongly influenced by the behaviour of management than is the case for the three measures already discussed.

With these notes of caution, findings are presented in Table 7.6.

Although there is no absolute measure of productivity, many managers estimated that their employees spend at the most five hours on the job working in an eight hour day. Activity sampling on a number of large sites in the U.K. indicates that between 14% to 40% of the total working day is actually spent on construction work (NEDO, 1976, pp.24-9). On accidents, the lost time frequency rate over the whole site was 10.12, a lower figure than that for the construction industry as a whole.

Table 7.6

Rating of Firms, within Trade Groups, on Productivity
and on Frequency of Accidents

Firm	Productivity	Accident Frequency
Mech. 1	M	A
Mech. 2	L	A
Mech. 3	L	A
Mech. 4	H	B
Mech. 5	M	B
Mech. 6	M	B
Mech. 7	M	A
Mech. 8	M	B
Mech. 9	H	B
Mech.10	M	A
Thermal 1	H	A
Thermal 2	H	B
Thermal 3	L	B
Thermal 4	M	B
Elec. 1	L	B
Elec. 2	H	A
Elec. 3	M	B
Elec. 4	L	A
Elec. 5	M	B
Civil 1	-	A
Civil 2	-	A
Civil 3	-	B
Civil 4	-	B
Scaff. 1	-	B
Scaff. 2	-	A
Scaff. 3	-	B

NOTES: H = High M = Medium L = Low
A = Above Median B = At or below Median

Links between the Measures of Conflict

Each of the five measures was cross tabulated against each other measure by trade group and, where appropriate, over all trade groups. There are four significant findings. In the mechanical trade group, high productivity is associated with low labour turnover. Over all trade groups, a lower level of absenteeism is associated with lower labour turnover, fewer domestic strikes, and a below average incidence of accidents. Thus there is some initial evidence that all five measures are acting as indicators of the level of conflict in firms, and that they tend to be absent or present together.

AMOUNT OF UNION INVOLVEMENT

Recruitment and Selection

The amount of union involvement in the actual systems of recruitment and selection operating in their firms was accurately perceived by all shop stewards, almost 80% of operatives, and almost 90% of supervisors. The main variations in recruitment and selection procedures lie between trade groups. The methods adopted in firms may vary depending on the numbers being recruited at any one time.

In the mechanical trade group, shop stewards and local full-time union officers have greater influence over recruitment and selection than is the case in other trade groups. The five unions each have their lists of local unemployed members and push for preference to be given to the employment of these men. Additionally the mechanical shop stewards' committee have a series of rulings which they try to enforce. Examples of these rulings are that only men who are unemployed should be started

on site, that firms cannot transfer in non-staff employees from other sites, that preference in employment be given to men made redundant from the Merseyside large site, and that men should not be allowed to move from one employer to another on site without a gap of two weeks in the event of a redundancy and six weeks if a man left voluntarily.

These pressures have been most felt in the larger firms in the trade group and among firms which have recruited in bulk towards the end of the survey period. The outcomes may be illustrated by four examples. Firm mech 2 has recruited all its rigger-erectors and most of its other craftsmen from the union lists, but has selected those individuals it wanted from the lists rather than accepting men in order of length of unemployment. Firm mech 3 has restricted recruitment to local unemployed men but not just to those on the union lists. Firm mech 6 has refrained from trying to transfer in operatives from another site and has recruited locally. Firm mech 8 has transferred men in from other sites. This firm, unlike most in the trade group, employs through its head office rather than locally on site.

In the thermal insulation trade group there have been pressures from the union branch and from stewards that preference be given to local unemployed men, and objections have been raised to the transfer in by firms of 'out-of-town' men. Despite this, firms in the group recruit from whatever sources they like and transfer men in from other sites. Selection remains a managerial prerogative. The typical practice in the group is of employing through head offices off-site rather than locally.

The electrical and civil engineering contractors retain managerial prerogative over sources of recruitment and methods of selection, and there are no real union pressures acting against this. Typically employment is through the company head office, and there is a free transfer of men on and off site. In the electrical trade group, the employment pool system operated by the JIB is little used. Firm civil 3 is notable for a recruitment system which rests on informal contacts within the Irish community in Manchester (cf. Myers, 1946, p.2).

The scaffolding trade group contains two contrasting recruitment and selection systems. In firm scaff 3 the stewards have had some success in enforcing a number of informal rulings similar to those in the mechanical trade group. The other scaffolding companies employ through their head offices, and recruitment and selection remains a managerial prerogative.

Redundancy

With the exception of the civil trade group, where almost 40% of operatives were unsure of the actual system of redundancy or transfer operating in their company and the amount of union involvement in this process, the vast majority of operatives, shop stewards and supervisors accurately perceived the actual system. Even counting in the civil trade group, the figures are 75% of all operatives, 93% of all stewards and 85% of supervisors.

Systems operating are fairly uniform within trade groups, and reflect the differing dominant employment patterns in the groups. Thus, for example, the civil group is characterised by contractors on site for long periods on a series of contracts and on maintenance, and offering

fairly stable and fixed employment. This contrasts with the situation in some of the larger mechanical contractors which hire for one short contract only. Many of the thermal insulation, electrical and scaffolding firms offer transfer opportunities to other sites to at least some of their manual employees.

There is a seniority system for redundancy in all firms in the mechanical trade group. In firms mech 1 and 2, first in - last out is operated without exceptions for rank and file operatives, but in the other firms bad timekeepers or men falling into other special categories are the first to be dismissed. Shop stewards are in all cases the last men to go. There is no seniority protection for first line supervisors.

In the thermal insulation trade group every firm operates a seniority system, with provisions for special cases, for operatives and stewards made redundant from site. However, each company except thermal 1 offer the chance to transfer to other sites to at least some of their employees, and management alone decides to whom it will offer this opportunity.

There is even less union involvement on this question in the electrical and civil trade groups. In the former trade group only firm elec 1 operates a seniority system on redundancy, and in all firms management alone decides to whom it will offer transfer opportunities. In the latter trade group management retains all decision making over redundancy and transfer.

As was the case over recruitment, the scaffolding trade group exhibits a split over redundancy practices. In firm scaff 1 management retains its prerogative. In firm scaff 2 no men are made redundant from site and an informal seniority system operates on transfer. In firm scaff 3 there is a seniority with exceptions scheme for redundancy but no union involvement over transfer.

Organization of Work

As with the two areas already discussed, the amount of union involvement over organization of work varies mainly between trade groups. Overall, union involvement is greatest in the mechanical trade group. Here the shop stewards' committee has established rulings based on general union directives and on custom and practice in the area, and these are implemented to varying degrees in mechanical firms. Thus in most mechanical firms welding is confined to members of the BMS, supervisors are not allowed to work with the tools, and craftsmen will only take instruction from a supervisor who is trained in their craft and is a member of an 'appropriate' union. In a few of the larger mechanical firms there are rulings on levels of manning on specific types of cranes, restrictions in the mobility of men between gangs and jobs, and requirements for the employment of specific trade mates. Inclement weather is a particular problem on construction sites, and throughout the mechanical trade group the stewards enforce their interpretation of when conditions are unsuitable for working. In the latter stage of the research an attempt by one company led to a ruling restricting the bringing of prefabricated parts onto site.

Union involvement in the organisation of work in the thermal insulation trade group is largely confined to the issue of working in inclement weather. The stewards in effect decide whether or not a job has adequate cover.

In the electrical and civil engineering trade groups, union involvement is small and confined to seeing that adequate protective clothing is provided and to fringe activities such as involvement in the planning of routes for the works' buses. Firms in the scaffolding trade group each operate group bonus schemes which enable operatives to "earn their own money". This leads to fairly autonomous work groups governing to a large extent their own pace and hours of work.

Measure of Amount of Union Involvement

As noted in Chapter 4 and detailed in Appendix 6, each firm was scored on the amount of union involvement in the two key areas of recruitment/selection and redundancy. On this measure, firms mech 1, 2, 3, 5 are graded as experiencing high union involvement, firms mech 6, 7, 9, 10 and scaff 3 as having medium union involvement and all other firms as having low union involvement.

FACTORS AFFECTING CONFLICT AND UNION INVOLVEMENT IN
RULE MAKING ON THE MERSEYSIDE LARGE SITE

INTRODUCTION

In this chapter the statistically significant findings from the testing of hypotheses derived in Chapter 3 are first presented. The brackets after each hypothesis indicate whether it is significant within trade groups or over the whole site.

The next section of the chapter presents the findings from the typal analyses. This extends the bivariate analyses by identifying within roles individuals who share a range of common attitudes, and by identifying within trade groups firms which share a range of common amounts of conflict and of union involvement in rule making. The biographical characteristics and aspects of their current work situation which distinguish types of individuals, and structural and attitudinal characteristics which distinguish types of firms, are then identified.

The final section is a discussion of the findings on factors affecting conflict and union involvement in the making and administering of rules governing labour recruitment/selection, utilisation and termination.

Conflict

The following significant relationships are found.

Size of Firm and Conflict

H1.1 Firms with a higher average number of manual employees experience a higher loss of working days per employee due to domestic strikes (mechanical trade group - indication only), a higher percentage voluntary absenteeism (mechanical trade group), a higher percentage voluntary labour turnover (mechanical trade group - indication only), lower levels of productivity (mechanical trade group), and an accident frequency above the median (mechanical trade group - indication only).

Age of Manual Employees and Conflict

H1.2 Firms with a higher median age of manual employees experience an accident frequency above the median (overall, mechanical trade group).

Cohesion of Labour Force and Conflict

H1.3 Firms in which the manual labour force contains a lower proportion of skilled employees experience lower levels of productivity (mechanical trade group - indication only). Firms in which the labour force is less occupationally uniform experience higher voluntary absenteeism (overall, mechanical trade

group - indication only), and an accident frequency above the median (mechanical trade group).

Security of Employment and Conflict

H1.4 Firms which have been a shorter time on site experience a higher loss of working days per employee due to domestic strikes (mechanical and electrical trade groups - indication only). Firms in which the manager has been a shorter time in post experience a higher loss of working days per employee due to domestic strikes (overall, mechanical and electrical trade groups - indications only). Firms which have a shorter median length of service for manual employees experience a higher loss of working days per employee due to domestic strikes (overall, mechanical trade group), and lower levels of productivity (overall, mechanical trade group - indication only). Firms in which the manual employees perceive their security of employment to be low experience a higher level of voluntary labour turnover (mechanical trade group).

Fairness and Conflict

H1.5 Firms in which the shop stewards have less favourable opinions on the fairness of their firm to its manual employees experience a higher loss of working days per employee due to domestic strikes (overall).

Flexibility of Management and Conflict

H1.6 Firms in which the manager feels there are circumstances in which manual employees are justified in taking direct industrial action in breach of grievance procedure experience lower levels of voluntary labour turnover, higher levels of productivity, and an accident frequency below the median (mechanical trade group - indications only).

Influences on Attitudes to Unconstitutional Industrial Action

H1.7 Shop stewards who have taken direct industrial action in breach of grievance procedure feel it is more justified to break procedure (overall).

H1.8 Managers who have a favourable opinion of the shop stewards in their firm feel there are circumstances in which manual employees are justified in taking direct industrial action in breach of procedure (overall).

Influences on Attitudes to Current Firm

H1.9 Operatives and supervisors who have shorter lengths of service with their current employer or who perceive their security of employment to be low, have less favourable opinions on the fairness of their current firm to its manual employees (overall).

H1.10 Older operatives have more favourable opinions on the fairness of their current firm (overall).

H1.11 Operatives who view the existing general industrial relations system as unfair have less favourable opinions on the fairness of their current firm (overall).

Influences on Attitudes to General Industrial Relations System

- H1.12 Operatives who perceive their security of employment to be low, or who have experienced a greater amount of unemployment, view the existing general industrial relations system as unfair (overall).
- H1.13 Operatives with ambitions to become supervisors view the existing general industrial relations system as more fair than do other operatives (overall).
- H1.14 Supervisors who have been shop stewards view the existing industrial relations system as less fair than do other supervisors (overall, mechanical trade group).
- H1.15 Operatives who have been supervisors view the existing industrial relations system as less fair than do current supervisors (overall).

Influences on Attitudes to Supervision

- H1.16 Supervisors who have shorter lengths of service are less satisfied with their management's handling of its manual employees (overall). Supervisors who have less favourable opinions on the work performance of the manual employees are less satisfied with their management's handling of its manual employees (overall, mechanical trade group).
- H1.17 No significant relationships.

H1.18 Managers who are more satisfied with the productivity of their manual employees, or who are in firms in which the majority of supervisors are transferred onto site, or in which supervisors perceive their security of employment to be high, are more satisfied with the loyalty and effectiveness of their supervisors (overall).

Union Involvement in Rule Making

The following significant relationships are found.

Security of Employment and Favoured Amount of Union Involvement

H2.1 Operatives who perceive their security of employment to be low, or who have shorter lengths of service, or who have experienced a greater amount of unemployment favour a greater amount of union involvement than other operatives (overall).

Fairness and Favoured Amount of Union Involvement

H2.2 Operatives who have less favourable opinions on the fairness of their firm favour a greater amount of union involvement than other operatives (overall). Operatives (overall, electrical trade group) and shop stewards (overall) who view the existing general industrial relations system as unfair favour a greater amount of union involvement than other operatives and shop stewards.

Role Change and Favoured Amount of Union Involvement

- H2.3 Operatives with ambitions to become shop stewards or who have been shop stewards favour a greater amount of union involvement than other operatives (overall).
- H2.4 Shop stewards who have been supervisors favour a lesser amount of union involvement than other shop stewards (mechanical trade group).
- H2.5 Supervisors who have been shop stewards favour a greater amount of union involvement than other supervisors (overall).
- H2.6 Supervisors who have been shop stewards favour a lesser amount of union involvement than current shop stewards (overall, mechanical trade group).
- H2.7 Shop stewards with ambitions to become supervisors favour a greater amount of union involvement than current supervisors (overall).

Existing Amount of Union Involvement and Favoured Amount of Union Involvement

- H2.8 Operatives in firms where the existing amount of union involvement is high favour a greater amount of union involvement than other operatives (overall). Operatives and supervisors in firms where there is currently union involvement in the system of recruitment and selection favour such involvement more than other operatives and supervisors (overall). Operatives and shop stewards in firms where there is currently a

seniority system for redundancy favour such a system more than other operatives and stewards (overall). Managers in firms where the existing amount of union involvement is high think that shop stewards raise issues which are none of their business more than do other managers (overall).

Favoured Amount of Union Involvement, Conflict and Achieved Amount of Union Involvement

H2.9 No significant relationships

H2.10 Firms with a higher loss of working days per employee due to domestic strikes have a greater amount of union involvement than other firms (overall, mechanical trade group).

PRESENTATION OF TYPAL ANALYSES

Individuals: Identification of Types within Roles

Operatives

The attitudes of operatives in six areas were noted, and the array scanned for individuals sharing common views on at least any five of these areas. A primary type (Op 1) containing 43 per cent of all operatives and a secondary type (Op 2) containing eleven per cent of all operatives are identified. The remaining operatives are spread over a further eighteen types. The analysis is terminated at this stage because scanning the array for individuals sharing common views on four out of six areas results in 91 per cent of all operatives falling into one category with the same characteristics as Type Op 1.

Table 8.1

Types of Operatives

Type	Op.1	Op.2
Attitude to existing industrial relations system	Unfair	Fair
Attitude to current employer	Fair	Fair
Favoured union involvement	Low	Low
Opinion of shop stewards	Favourable	Favourable
Willingness to become supervisor	No	Yes
Willingness to become shop steward	No	No
Security of employment	Secure	Secure
Supervisory experience	No	No
Age	Over 35	Over 35
Geographical origins	Local	Local
Length of service	Over 3 years	Under 3 years
Experience of unemployment	Low	Low
Skill level	Craftsman	Non-Craftsman
Experience as shop steward	No	No

Table 8.1 presents the modal attitudinal characteristics of the two types, and their biographical characteristics and aspects of their current work situation. Type Op 2 differs from Type Op 1 in being more likely to see the existing industrial relations system as fair and to be willing to become a supervisor. Type Op 2 is more likely to have been a supervisor, to have his present permanent address in an area other than Merseyside or North Wales, to have less than three years' service, to be semi-skilled or a labourer, and to have been a shop steward. Type Op 2 is found more in the scaffolding trade group and less in the thermal insulation trade group than Type Op 1.

Type Op 2 may be summarised as an independent, ambitious, mobile operative, whereas Type Op 1 sees less opportunity for individual advancement and does not seek it.

Shop Stewards

The attitudes of shop stewards in seven areas were noted. The array was scanned for individuals sharing common views in at least any six of these areas and two types emerged. Type SS1 accounts for 34 per cent of all stewards and Type SS2 for 27 per cent of all stewards. The remaining stewards are spread over seven further types. The analysis is terminated at this stage because grouping stewards with common views in five out of seven areas results in 75 per cent of the stewards coming into one category. This has the same modal characteristics as Type SS1 except that the opinion of the employer is favourable.

Table 8.2 presents the modal attitudinal characteristics of the two types, and their biographical characteristics and aspects of their current work situation. Type SS1 emerges as a fairly parochial steward

Table 8.2

Types of Shop Stewards

Type	SS1	SS2
Attitude to existing industrial relations system	Unfair	Unfair
Attitude to current employer	Fair	Fair
Favoured union involvement	High	High
Opinion of operatives	Favourable	Unfavourable
Willingness to become supervisor	No	No
Willingness to take union office off site	No	Yes
Attitude to unconstitutional industrial action	Justified	Justified
Security of employment	Secure	Insecure
Supervisory experience	No	No
Age	Over 35	Over 35
Geographical origins	Local	Local
Length of service	Under 3 years	Under 3 years
Experience of unemployment	Low	High
Skill level	Non-Craftsman	Craftsman

whereas Type SS2 is more active in union affairs. Type SS2 is generally critical of the passivity of the majority of operatives, and attributes the reasonableness of management to his own efforts.

On experiences and current work situation, Type SS2 differs from Type SS1 in being less secure in his current job, less likely to have been a supervisor, less likely to have more than three years service, more likely to have experienced unemployment and more likely to be a craftsman. Type SS2 is restricted to the mechanical trade group, whereas Type SS1 is less likely to be found in this trade group and more likely to be found in the electrical, civil and scaffolding groups.

Supervisors

Supervisors' attitudes were noted in six areas and the array scanned for individuals sharing common views on any four of these. Type Sup 1 accounts for 64 per cent of all supervisors and Type Sup 2 for 29 per cent of all supervisors. The modal attitudinal characteristics of the two types and their biographical characteristics and aspects of their current work situation are presented in Table 8.3.

Type Sup 2 is less satisfied with both management and the operatives than Type Sup 1, and is more willing to work away from home. Type Sup 2 feels less secure in his current job, is more likely to have experienced movement back to operative status, is more likely to have less than five years service, and is more likely to have his present permanent home in an area other than Merseyside or North Wales. Type Sup 2 is found more in the mechanical trade group and less in the civil trade group than Type Sup 1.

Table 8.3

Types of Supervisors

Type	Sup.1	Sup.2
Attitude to existing industrial relations system	Fair	Fair
Attitude to current employer	Fair	Unfair
Favoured union involvement	Low	Low
Opinion of operatives	Favourable	Unfavourable
Opinion of management's handling of labour force	Satisfied	Disssatisfied
Willingness to work away from home	No	Yes
Security of employment	Secure	Secure
Fluctuation in status	No	No
Age	Over 35	Over 35
Geographical origins	Local	Distant
Length of service	Over 5 years	Under 5 years
Experience as shop steward	No	No

Managers

The attitudes of managers in eight areas were noted. When the array was scanned, two main types, with the members of each sharing common views in at least five of the areas, were identified. Type Man 1 accounts for 68 per cent of all managers and Type Man 2 for 25 per cent of all managers (Table 8.4).

Type Man 2 has a less favourable opinion of other parties on site than Type Man 1, and a more rigid attitude to grievance procedure. Type Man 2 differs from Type Man 1 in being less likely to have his present permanent home in Merseyside or North Wales and less likely to have been an operative. Type Man 2 is more likely to be found in the mechanical trade group and less likely to be found in the thermal insulation or scaffolding trade groups than Type Man 1.

Firms: Identification of Types within Trade Groups

Mechanical Trade Group

The mechanical trade group was scanned for firms sharing common behaviours on any three out of five measures of organized and unorganized conflict. The modal characteristics of the three types identified by this process, together with their modal rating on amount of union involvement, are presented in Table 8.5. Firms mech 1, 5, and 6, fall into Type mech A, firms mech 4, 7, 8, 9 and 10, fall in Type mech B, and firms mech 2 and 3 fall in Type mech C.

Table 8.4

Types of Managers

Type	Man.1	Man.2
Attitude to existing industrial relations system	Fair	Fair
Attitude to current employer	Fair	Unfair
Favoured union involvement	Low	Low
Opinion of shop stewards	Favourable	Favourable
Opinion of operatives	Favourable	Unfavourable
Opinion of supervisors	Favourable	Unfavourable
Willingness to work away from home	Yes	Yes
Attitude to unconstitutional industrial action	Justified	Not justified
Age	Over 35	Over 35
Geographical origins	Local	Distant
Length of service	Over 5 years	Over 5 years
Time as manager on this site	Under 3 years	Under 3 years
Role	Line	Line
Experience as operative	Yes	Yes
Experience as shop steward	No	No

Table 8.5

Types of Mechanical Contracting Firms

Type	Mech A	Mech B	Mech C
Domestic strikes	High	Low	High
Absenteeism	Low	Low	Medium-high
Labour turnover	Low	Low	High
Productivity	Medium	Medium	Low
Accidents	Below Median	Below Median	Above Median
Union involvement	High	Medium	High

Basically, Type mech A is characterised by high organized conflict, low unorganized conflict, and high union involvement, Type mech B by low organized and low unorganized conflict and medium union involvement, and Type mech C by high organized and high unorganized conflict and high union involvement.

The structural and attitudinal characteristics distinguishing the types of firms are as follows. Type mech C firms differ from firms in the other two types in being larger (over 200 site operatives), having a labour force with a shorter median length of service (six months) offering their employees less security of employment, and having managers who are less likely to feel that unconstitutional industrial action is justified. Type mech B firms differ from other firms in having been longer on site (about five years), having managers who have been longer in post (about five years), operatives with a higher median length of service (just over four years), and supervisors who are more satisfied with their managements' handling of their labour forces. Type mech A

firms differ from other firms in having managers who are more likely to view the existing industrial relations system as fair and supervisors with less favourable opinions of the shop stewards in their firms.

Thermal Insulation Trade Group

A similar procedure to that described above for the mechanical trade group was carried out for the thermal insulation contracting firms. The findings are presented in Table 8.6. Type thermal A consists of firms thermal 1 and 2, and Type thermal B of the remaining two firms in the trade group.

Table 8.6

Types of Thermal Insulation Contracting Firms

Type	Thermal A	Thermal B
Domestic strikes	Medium	High
Absenteeism	High	High
Labour turnover	Medium-high	Low-medium
Productivity	High	Low
Accidents	Median	Below median
Union involvement	Low	Low

Type thermal A is characterised by firms experiencing less organized conflict, higher productivity, and more absenteeism, labour turnover and accidents than firms in Type thermal B. The two types are distinguished by Type thermal A firms having managers who have been longer in post (over five years as compared with under three years), supervisors who have more favourable opinions of the shop stewards in their firms, and shop stewards who are less likely to view their employing company as fair.

Electrical Trade Group

Electrical firms do not fall as easily into types as firms in the two trade groups already discussed. Table 8.7 presents two types which emerge when electrical firms are scanned for those sharing common behaviours on two of the five measures of conflict. Type elec A consists of firms elec 2, 3 and 4, and Type elec B contains firms elec 1 and 5.

Table 8.7

Types of Electrical Contracting Firms

Type	Elec A	Elec B
Domestic strikes	Low	Medium-high
Absenteeism	Low	Low-medium
Labour turnover	Medium	Medium
Productivity	Medium-high	Low-medium
Accidents	Above median	Below median
Union Involvement	Low	Low

Type elec A may be roughly characterised as experiencing lower organized and unorganized conflict than Type elec B. Structurally, Type elec A differs from Type elec B in consisting of firms which have been longer on site (median figures are respectively eight years and two years), which have managers who have been longer in post (median figure three years and less than one year), and which have operatives with longer service (median figures two and a half years and one year). Attitudinally, Type elec A differs from Type elec B in consisting of firms in which shop stewards are more likely to view

their current company and the existing industrial relations system as fair, and in which managers are more likely to feel it justified in some circumstances for employees to take unconstitutional industrial action and to have a favourable opinion of the shop stewards in their company. Supervisors in Type elec B firms have a predominantly favourable opinion of shop stewards in their company, while opinions in Type elec A firms are more mixed.

Civil Trade Group

The civil trade group was scanned for firms sharing common behaviours on any two of the four available measures of organized and unorganized conflict. The modal characteristics of the two types identified by this process, together with their modal rating on amount of union involvement, are presented in Table 8.8. Type civil B contains only firm civil 1.

Table 8.8

Types of Civil Engineering Contracting Firms

Type	Civil A	Civil B
Domestic strikes	Low	Low
Absenteeism	Medium	Low
Labour turnover	High	Low
Accidents	Above median	Below median
Union Involvement	Low	Low

Type civil B clearly differs from Type civil A in experiencing a lower level of unorganized conflict. Structurally, Type civil B firms differ from firms in Type civil A by being smaller (average of 75 site

operatives compared with 240), a shorter time on site (median time of three and a half years compared with twenty years), and in having 92 per cent of their labour forces drawn from North Wales and a much higher proportion (45%) of craftsmen. Managers and supervisors in Type civil B firms are more likely to have a favourable opinion of the stewards in their company than are those in Type civil A firms, and managers in the former firms are more likely to view the existing industrial relations system as unfair.

Scaffolding Trade Group

The availability of only three conflict measures and the restriction of the sample to only three firms makes a formal type analysis not very meaningful. It may just be noted that the level of domestic strikes and absenteeism is lowest in the smallest and newest firm on site, firm scaff 1.

DISCUSSION OF FINDINGS ON CONFLICT AND UNION INVOLVEMENT IN RULE MAKING

Introduction

The study aims to examine relationships in two main areas. One is the effect of factors which vary between firms on the Merseyside large site on the amount and form of conflict exhibited in these firms. The second and related area is the effect of all these factors on the amount of union involvement in the making and administering of rules governing labour recruitment/selection, utilisation and termination. Combination of findings from the hypothesis testing and typal analyses, and descriptive data from Chapters 5-7, is helpful in the interpretation and discussion of relationships.

As the general model (Figure 1 in Chapter 1) illustrates, it is employees' perceptions and interpretations of their workplace environment, as influenced by their experiences, which provide motives for the expression of conflict by manual employees and their desire for a greater amount of union involvement in rule making, and for the responses of supervisors and managers. This workplace environment also facilitates or constrains the translation of such attitudes into behaviours and the achievement of outcomes in terms of rules concerning job regulation. In so doing the model underlines that it is in combination that factors assume importance.

Influence on attitudes related to conflict and to union involvement

Manual employees' security of employment, and related to this their perceptions of the fairness of their current employer and of the general industrial relations system, are an important motive for conflict and for union involvement.

For the majority of operatives, shorter lengths of service with their current employer, insecurity in current employment and experience of a greater amount of unemployment are associated with a view of both their current employer and the existing industrial relations system as unfair and a desire for a greater amount of union involvement. Experiences of low security of employment are significantly less likely for civil operatives and are probably most pronounced for mechanical operatives. Further, there is evidence that operatives' perceptions of their current situation are dominant in influencing attitudes. Operatives who currently perceive their security of employment to be low are significantly more likely to favour a greater amount of union involvement in both the recruitment/selection and redundancy areas than those

who are currently secure, regardless of either group's experience of unemployment.

However, there are a small minority of operatives who have shorter service with their current employer as a consequence of their greater mobility, both geographically and between roles, than other operatives. Such men are likely to view the existing industrial relations system as fair. They are least common in the mechanical and thermal insulation trade groups.

Within the mechanical trade group and over all trade groups there is evidence that older operatives have more favourable opinions on the fairness of their current firm. Since mechanical and civil operatives do not differ significantly in age but do differ on attitudes in this area, it may be concluded that age is an underlying factor influencing such attitudes.

Shop stewards are significantly more likely than operatives both to view the existing general industrial relations system as unfair and to favour a greater amount of union involvement. Stewards who view the industrial relations system as unfair are significantly more likely than other stewards to favour a greater amount of union involvement. About 70% of stewards feel that unconstitutional industrial action is sometimes justified and such stewards are more likely to have engaged in such action. Civil stewards are significantly less likely than those in other trade groups to hold either of these views.

There is a concentration in the mechanical trade group of stewards who have short service with their current employer, who perceive their security of employment as low and who have experienced much unemployment. Such stewards are the most active in union affairs both on and off site. Those among them who view their current employer as fair attribute this to their own efforts. However, the stewards who are most likely to view their current employer as fair are those who have longer service with their current employer, higher security of employment, and who have experienced little unemployment. They are found particularly in the civil trade group but also in the electrical and scaffolding groups. Such stewards are likely to spend less time on union business, and to be well satisfied with the support they receive from the rank and file.

Security of employment and related attitudes to fairness are also important in understanding the attitudes of supervisors and managers relevant to conflict and to union involvement. Overall, supervisors and managers are significantly more likely than operatives or shop stewards to view the existing industrial relations system as fair, and are significantly less likely than stewards to favour a greater amount of union involvement.

It is the minority of supervisors who have short service with their current employer and who perceive their security of employment as low who are most likely to view their current firm as unfair to its manual employees, to be dissatisfied with management's handling of its manual labour force, and to be dissatisfied with the productivity of the manuals. These dissatisfied supervisors are concentrated in the mechanical trade group and are more likely than other supervisors to

have their permanent home outside the local area and to have experienced fluctuations back to operative status.

Associated with these supervisors are a minority of managers - concentrated in the mechanical trade group and making up about half of all mechanical managers - who are dissatisfied with both the loyalty and effectiveness of their supervisors and the productivity of their operatives. These managers are less likely than other managers to be local to the area or to have started in the industry as operatives.

Over all trade groups a minority of managers hold unfavourable opinions of the stewards in their firms. Such managers are significantly more likely than other managers to take a rigid approach to industrial relations and to feel that there are no circumstances in which manual employees are justified in taking direct industrial action in breach of disputes procedure. This coupling of views is particularly predominant in the electrical trade group. It must be remembered, however, that a small majority of all managers on site feel there are no circumstances which justify unconstitutional industrial action.

There is evidence for all roles that the actual amount of union involvement existing in their firm influences the favoured amount of union involvement. Confirmation that the direction of the relationship is as described comes from the findings of links between factors providing manual employees with a felt need for union involvement - such as short service, insecure employment, perceived unfairness of their current firm and the general industrial relations system - and favoured amount of union involvement; together with the absence of

any significant relationships between these factors providing a need for union involvement and the actual amount of union involvement.

Operatives and supervisors have the most fluid views on union involvement. Those in firms experiencing union involvement in the recruitment/selection system are more likely to favour such involvement. Operatives additionally follow the existing situation in their firm over their preferred redundancy system. Shop stewards are more fixed in their views. There is evidence, however, that stewards in firms which currently operate a seniority system on redundancy are more likely than other stewards to favour such a system. Managers remain constant in deprecating union involvement, and those who are most subject to stewards raising issues are more likely to feel that the stewards are interfering in matters which are none of their business.

Within this broad framework of factors influencing attitudes related to conflict and to union involvement, individuals' views are shaded by their experiences of holding other roles or their ambitions to do so. On the Merseyside site, 14% of all current operatives, 26% of all current supervisors and 29% of all current managers have been shop stewards at some time in the past. The percentage figures are higher for the mechanical trade group. 12% of all current operatives and 18% of all current stewards have been supervisors, with significantly higher proportions in the mechanical group. 15% of current supervisors have experienced a downward fluctuation to operative status and 3% an upward fluctuation to manager. On ambitions, 41% of operatives and 30% of stewards express a willingness to become supervisors at some time in the future, and 24% of operatives express willingness to become stewards.

An examination of the attitudes of those with ambitions for or actual experience of mobility between roles gives rise to two principal findings. The first concerns role adaptation and the second concerns self-selection.

On role adaptation, the evidence is that when occupancy of one role requires different behaviours in a certain area from those required in another role, the individual's current role dominates in shaping his attitudes in that area in comparison with current members of the role aspired to or experienced. Union posts and supervisory posts call for different behaviours over union involvement, and so role change leads to changes in attitudes. Thus supervisors who have been shop stewards favour a lesser amount of union involvement than current stewards, and stewards with ambitions to become supervisors favour a greater amount of union involvement than current supervisors.

On self-selection, there is evidence that those individuals with ambitions for or experience of role change are not typical of either their group of origin or the group aspired to or achieved. They tend to hold intermediate attitudes differing from the typical attitudes of more static members of both roles.

Thus operatives with ambitions to become supervisors are more likely to view the existing general industrial relations system as fair than are other operatives. Operatives with ambitions to become shop stewards, or who in the past have achieved such a post, favour a greater amount of union involvement than other operatives. However, although mobility between operative and steward roles is significantly greater in the mechanical trade group than in other groups, the findings on favoured

amount of union involvement are not significant for this trade group alone. This hints that the low current security of employment and higher experience of unemployment which characterises the mechanical trade group may dominate over role mobility in influencing attitudes to union involvement.

The fairly uniform views of stewards - with over 70% favouring a greater amount of union involvement and perceiving the existing industrial relations system as unfair - may well explain the absence of significant differences in attitudes being identified between stewards with supervisory ambitions and other stewards. Nevertheless the finding, for the mechanical trade group, that shop stewards who have been supervisors favour a lesser amount of union involvement than other stewards does give some evidence of self-selection. It is the less radical stewards who are willing to take supervisory posts. Indeed the typically intermediate attitudes of the men mobile between steward and supervisory posts is illustrated by the findings that supervisors who have been stewards are significantly more likely than other supervisors to favour a greater amount of union involvement and to view the existing industrial relations system as unfair.

Downward mobility from a supervisory post to manual status is usually involuntary. This experience colours attitudes to the fairness of the general industrial relations system, with these ex-supervisors viewing the system as less fair than do current supervisors.

Influences on form and amount of conflict

The workplace environment, in addition to providing motives for conflict, facilitates or constrains its expression. As a preliminary to discussing influences on the form and amount of conflict exhibited in firms, a brief examination is necessary of the links between the five measures of conflict adopted in the study.

Overall, higher voluntary absenteeism, higher voluntary labour turnover, lower productivity and a higher accident frequency are all associated. Each is acting as an indicator of a higher level of unorganized conflict. This association is particularly clear in the mechanical trade group and among the three measures available for the civil trade group. Accident frequency relative to other firms engaged in similar work is perhaps the least satisfactory measure of unorganized conflict. It is the most prone to variations due to other characteristics of firms, as the significant relationship between a higher median age of manual employees and an accident frequency above the median illustrates. The fact that this relationship is significant both within the mechanical trade group and over the whole site, coupled with the finding that only electrical operatives are significantly younger than mechanical or civil operatives, leads to the conclusion that age is an underlying factor influencing accidents but not the other measures of unorganized conflict.

On the links between the measures of organized and unorganized conflict, there is some evidence, within the mechanical trade group and over the whole site, that it is the same firms which experience higher or lower levels of both. However, although this may be the dominant pattern it is not the sole one. Higher organized conflict may be associated with lower unorganized conflict and vice versa.

There is most evidence on factors affecting the form and amount of conflict in firms in the mechanical trade group. Here higher levels of both organized and unorganized conflict are found in firms which have larger numbers of manual employees on site, which have been a shorter time on site, have a fairly recently recruited and insecure manual labour force, a manager who has little experience of the site, and often dissatisfied supervisors. Firms mech 2 and mech 3 share all these characteristics. Higher levels of unorganized conflict, compared with other firms in the mechanical trade group, are found in firms with less cohesive labour forces - as measured by occupational diversity and a lower proportion of skilled employees - and in firms in which the manager takes a less flexible approach to industrial relations as evidenced by a condemnation of all breaches of grievance procedure. It is the very small specialist contractors, such as firms mech 4 and mech 8, which have the most cohesive labour forces and lowest levels of unorganized conflict.

One reason why larger firms experience higher levels of conflict is because such firms tend to be more formal in their administration. They are characterised by more rigid interpretation of the procedural and substantive rules in the site agreement, and more bureaucratic administration over matters ranging from the issue of materials from the stores to the use of telephones. Frustration and ill will was felt in the larger firms as their employees observed smaller firms like mech 4, 8, and 9 using practices such as 'job and finish' and releasing men early during inclement weather.

A second reason for the link between the size of a firm and levels of conflict is because of key bargaining. The attempt of the CEU to increase its control over recruitment and selection was concentrated on the largest firm in the trade group, mech 2, which was attempting to rapidly build up its labour force.

The time that a firm has been on site links with conflict through several factors related to the learning period in the early stages of a contract. Among the manual workers there is usually higher labour turnover as men leave a job which does not meet their expectations, while there might also be organized industrial action to test out a new management, as was the case over manning levels in firm mech 2.

For managers new to the site, time is needed to learn its customs and practices, to learn not to over react to situations, and to try to build up an element of trust and understanding with the stewards.

These problems are particularly acute for managers who are not local to the area, as was the case in firms mech 2 and 3. Thus inexperience on the part of the manager in firm mech 2 led to a lack of appreciation of the probably consequences of delaying to mend a water pipe to a cabin. This was interpreted by the men as confirmation that management did not care about their welfare and acted as a stimulus for a walk-out. Similarly the posting, without prior consultation with the stewards, of a printed sheet on travel allowances in firm mech 3 promoted much suspicion. Evidence of learning taking place by managers is given by the experiences of firm mech 3. This company had three consecutive contracts on the Merseyside large site, and the time lost due to domestic disputes fell over successive contracts.

Insecurity of employment influences the behaviour of both manual workers and supervisors. For the former, in addition to fuelling distrust, insecurity encourages higher voluntary labour turnover as men anticipating redundancy in the near future leave as alternative employment opportunities occur, and leads to falls in productivity towards the ends of contracts. For the latter, low loyalty to the firm and a lack of supervisory training associated with recruitment for a single contract tends to lead to behaviours which are inappropriate from management's viewpoint. Two contrasting mechanisms are of help in explaining the behaviour of supervisors in such a situation, and the evidence is that neither is dominant. Some supervisors, anticipating the day when they again may be a manual worker alongside some of the men they are currently supervising, are lax in supervision and give concessions to win co-operation, such as generous booking of the time spent working under conditions attracting extra payment. This may, as in firms mech 2 and 3, encourage fractional bargaining. Other supervisors, because of the marginality of their status and frustration at their lack of protection by the unions, act in an extremely antagonistic way towards the manuals.

In contrast, firms which do offer security of employment to their supervisors and manual employees are not only offering an environment which may be conducive to more trust and better industrial relations. For supervisors in particular these firms are also more selective over the calibre of men chosen for such longer term appointments and give them training, as was the case in firm mech 10.

In looking beyond the mechanical trade group to the site as a whole, there is evidence at this level of similar factors affecting the form

and amount of conflict. Higher levels of organized conflict are found in firms in which the operatives have a shorter median length of service, the manager has been a shorter time in post, and the shop stewards have less favourable opinions on the fairness of their firm. Additionally, for the electrical trade group, firms which have been a shorter time on site experience higher organized conflict. Higher levels of unorganized conflict are, over the site as a whole, found in firms in which the operatives have shorter service and lower occupational uniformity. There is not, therefore, over the whole site any relationship between either size of firm or the flexibility of the manager and levels of conflict. For the civil trade group, however, there is an indication that the firms with a larger number of manual employees experience higher unorganized conflict. It is these larger firms which are less occupationally uniform.

The characteristics noted above as distinguishing firms which, over the whole site, exhibit higher levels of organized conflict, are less likely to occur in the civil trade group. Here, in comparison with other trade groups, the operatives have significantly longer service with their current employer and shop stewards are significantly more likely to have favourable opinions on the fairness of their firm. A higher proportion of civil managers have longer service with their current company, although not necessarily on the Merseyside site, than is the case for managers in each trade group except thermal insulation.

However, the civil trade group, in comparison with other trade groups, also has larger firms and firms which have been longer on site. These variables are significantly related to levels of conflict for the

mechanical trade group but not for the whole site. This lends support to the view that it is a shorter service, lower trust, inexperienced manager situation which, over all trade groups, characterises higher organized conflict. The picture is not being distorted by any broader characteristics of the civil trade group. Confirmatory evidence is given by the findings that the civil trade group, which has the lowest domestic strike figures, also has operatives who are significantly more likely to view their current firm and general industrial relations system as fair, supervisors who are significantly more satisfied with management's handling of the labour force, and firms which all offer high security of employment.

The experiences of firm elec 1 illustrate clearly how a low security, low trust, inexperienced manager situation leads to higher levels of organized conflict. For example, the manager asked an employee about five months after the start of the eighteen month contract if he knew any good electricians who were looking for work. This led to rumours that the firm was planning either to dismiss the existing labour force or to engage in a large further recruitment of labour to speed completion. A ten day strike resulted.

At a more general level, the importance of workplace environment as contrasted to any specific characteristics of individual employees in influencing the expression of conflict is emphasised by the levels of inter-firm mobility. Almost one quarter of all operatives and shop stewards, and one fifth of supervisors had their immediate previous job with a contractor currently or recently on the Merseyside site.

The absence of any significant relationships between any of the measures of cohesion of a labour force and levels of organized conflict may be interpreted - in the light of the significant relationships between lower cohesion and higher unorganized conflict - as showing that all firms on site, with the probable exception of firms civil 1, 2, and 3, have a sufficient core of men in a single craft or identifiable semi-skilled occupation to act as an organizing force for collective action given the felt need. The predominant expression of conflict in the less cohesive labour forces remains, nevertheless, individual withdrawal.

The role of supervisors varies between trade groups, and with it any influence they may have on the form and amount of conflict expressed in firms. Flexibility over the allocation of condition money is largely restricted to the mechanical trade group, with a little discretion allowed to supervisors in some thermal insulation firms. The resultant fractional bargaining, with its conflict implications, is therefore restricted to these parts of the site. In the scaffolding trade group, the foreman shares in the gang bonus and this provides the basis for a co-operative relationship with the manual employees. Any conflict is channelled against management. In the electrical and civil trade groups, the low discretion allowed to supervisors over industrial relations matters coupled with their predominantly high security of employment and loyalty to management, means that they are, in themselves, unlikely to provoke any industrial relations problems.

Influences on amount of union involvement

Whereas only civil shop stewards favour significantly less union involvement than those in the mechanical, electrical and scaffolding trade groups - and the situation is similar for operatives - greater actual amounts of union involvement are restricted to eight firms in the mechanical trade group and one scaffolding firm. The ability of manual workers to establish union involvement, particularly in the face of management opposition, is influenced by the workplace environment.

There is evidence, both within the mechanical trade group and over the whole site, that whereas a wide disparity in favoured amount of union involvement between shop stewards and managers is not a cause of conflict, the actual amount of union involvement is greater in firms which experience higher levels of organized conflict. These firms combine a felt need for union involvement by manual employees, with the ability to achieve it.

Firm mech 2, the largest firm in its trade group, provides a clear example of the operation of factors to bring about a larger amount of union involvement. Its manual employees are predominantly short service, insecure, and distrustful of the fairness of their current employer and of the general industrial relations system. Its stewards favour unconstitutional action. Its supervisors are predominantly insecure and dissatisfied. Its manager is inexperienced on the site, takes a rigid approach to industrial relations and has low opinions of both the supervisors and the manuals.

As the largest firm in the trade group, mech 2 was subject to key bargaining, particularly as it sought to build up its labour force quickly at the start of its contract. The CEU, which was the most

active of the on-site unions in this field, imposed an employment embargo which succeeded in establishing union involvement in recruitment and selection. The establishment of such influence acted as a factor leading to raised expectations of union involvement. Pressure from the CEU and the craft unions on supervisors and managers led to the establishment of union control over aspects of supervision, levels of manning, mobility between jobs and other aspects of managerial relations. The insecure employment situation provided the stimulus and the need for the protection of members by their unions against discrimination by management in selecting men for redundancy.

Firms mech 1, 3, and 5, experienced similar, but less intensive, pressures for union involvement. These large and medium sized firms share many characteristics of firm mech 2. In particular they attempted to recruit a large proportion of their labour forces in the same time period and offered none or very limited opportunities for transfer to other sites at the end of contracts.

There was a carry-over effect of union involvement to other firms in the mechanical trade group so that, for example, seniority provisions over redundancy became the normal practice. The joint shop stewards' committee and the site convenor were forces for the dissemination of information and standardisation of practice between firms in the trade groups.

Firm scaff 3, which was the only firm outside the mechanical trade group to experience higher union involvement, shared many of the characteristics of those mechanical firms which had a larger amount of union involvement. It is the largest and most strike prone firm

in its trade group, recruits men locally for a single contract and has a manual labour force with a short median length of service. Its employees predominantly see the company as acting unfairly towards them. There is no carry-over of union involvement to other scaffolding firms because of the limited contacts between stewards in the trade group, and because the other firms do not recruit on site and do offer the opportunity for transfer at the end of contracts on the Merseyside large site.

The low amount of union involvement in other trade groups is largely a consequence of the more stable employment environment which the firms in them typically offer their manual employees. Most of these firms have either been a long period continuously on site or offer opportunities for transfer to other sites at the ends of contracts. The consequent absence of large scale recruitment/selection or redundancy situations on site means that both the primary motives and opportunities for unions to try to establish involvement are absent.

CONCLUSIONS: THE CONTRIBUTIONS OF THE STUDY

INTRODUCTION

In this final chapter, the contributions of the study in three areas are examined. First, the general theoretical contribution to an understanding of a modified rules approach to workplace industrial relations is reviewed. Secondly, the specific substantive contribution to an understanding of industrial relations in the fieldwork setting of a large industrial construction site, and wider application of these findings, is discussed. Thirdly - remembering the origins of the study in a project sponsored by a company to help solve practical industrial relations problems - the utility of the study to the client is reviewed and conclusions are drawn on the practicability of simultaneously satisfying the needs of the academic community and the client company. These contributions are drawn together in a final short section.

CONTRIBUTION TO AN UNDERSTANDING OF A MODIFIED RULES APPROACH TO WORKPLACE INDUSTRIAL RELATIONS

A modified rules approach to industrial relations was adopted in this study. It took as its starting point a definition of the subject as "the study of all aspects of job regulation - the making and administering of the rules which regulate employment relationships ..." (Bain and Clegg, 1974, p.95) but incorporated the interpretations and

restrictions argued in Chapter 1. This approach will now be examined in the light of the case study of industrial relations on the Merseyside large industrial construction site.

A major requirement is to define the range of rules and aspects of these rules with which the study of industrial relations is concerned. As a preliminary limitation it can be noted that a workplace level study confined to a single workplace should seek only to explain job regulation taking place within that workplace or taking place outside it but relating specifically and particularly to it rather than to a more general constituency. This latter category would include, for the Merseyside site, the negotiation of the mechanical site agreement by union full-time officials and a contractors' panel, and the making of a policy at a local CEU branch that only members on their out of work list should be employed on this site. Other aspects of job regulation, for example, the negotiation of the industry-wide collective agreements in building and civil engineering, or the making by multi-site contractors of corporate policies on security of employment, are external to the workplace and apply generally to a number of workplaces. They should be treated as a given, as part of the environment influencing job regulation in the workplace being studied.

Within this framework, the rules with which a study of workplace industrial relations is concerned are, broadly, the procedural and substantive rules regulating market and managerial relations (Flanders, 1970, pp.86-89). They may be concerned with both task centred and power centred decisions (Clarke et al, 1972, p.7). However, following Cox (1971, pp.141-142), Goodman et al (1975) and Wood et al (1975), industrial relations is concerned with explaining the content of

substantive and non-creative procedural rules only in so far as they illuminate power relations among the actors. To power should be added, on evidence from the case study, illumination of the goals and values of the actors. For example, the substantive rules governing the sources of recruitment in a company are influenced by the amount of union involvement in rule making in this area. This depends both on the extent to which workgroups or unions desire involvement - as shaped by, among other things, their trust of the employer - and on their ability to achieve it through industrial action. The content of substantive and non-creative procedural rules is, nevertheless, important as forming part of the environment influencing job regulation. For example, rules on technical standards and inspection provisions for welding led, on the Merseyside site, to claims for extra pay by welders and demands that they should only be supervised by members of the BMS.

The case study suggests that consideration should be given to the authorship of the rules regulating employment relationships in defining the scope of the subject of industrial relations. The concern with the process of rule making and interpretation should be restricted to areas where there is actual or attempted union or work group involvement, or where such involvement is desired by the employees. In the absence of any organized countervailing force operating outside an employing organisation's managerial hierarchy to provide a check on unilateral management decision making over employment relationships, the study of the process of rule making and interpretation is one of administrative procedures and managerial decision making processes. This is a traditional area of study for organizational behaviour. To include it

in the study of industrial relations, as is implied by the Bain and Clegg (1974) definition, is to overlap with other established social science fields of study and to disperse the distinct focus of industrial relations. Illustrations from the Merseyside large site of the various classes of authorship of rules will be presented.

The operation of disciplinary procedure, as in the case of a welder suspended and eventually dismissed for stealing some wire from site, is an example of joint management-union involvement in rule making and interpretation. Here industrial relations is concerned to describe and explain factors such as the extent to which the formal procedure is followed, the threat or use of sanctions, the perceived legitimacy of the final outcome and any changes made to the formal procedure. In this example, the procedure was used right through to the final stage - arbitration, but with much informal lobbying throughout by full-time union officers and stewards on both client and contractor. The arbitrator's decision to uphold the dismissal of the man led to a token walk-out in the mechanical trade group and to much acrimony.

Decisions on the organization of work are formally ones of managerial prerogative. Nevertheless, 23 per cent of stewards expressed a wish to be involved in this area, but in most firms management was unwilling to concede this. Questions of levels of manning and mobility of labour led to organized and unorganized conflict, particularly in the mechanical trade group. Industrial relations is concerned to discover such areas of latent discontent and explore their consequences. However, when there is unilateral management rule making with no evidence of a wish for union or work group involvement as, for example, over promotion to supervisory or managerial positions, then the study of process lies

outside the scope of industrial relations. The subject is not specifically interested in explaining the choice and operation of the selection procedure adopted by management.

The final form of rule making to be considered is that originating from unilateral union or work group action. This includes both evolved custom and practice, as over seniority provisions for redundancy, and that imposed by union power, as over recruitment from union out of work lists in firm mech 2. The establishment and maintenance of such rules within an employing organization implies some reaction from management ranging from passive acquiescence to active resistance, and with this a merging into joint rule making. Industrial relations is concerned to explain the processes by which such rules are established and maintained, and their content in so far as this illuminates the goals, values and powers of the actors.

In order to study those areas of the process of rule making and interpretation with which industrial relations is concerned, the case study highlights the need to consider intra-organizational bargaining within both the union and management sides as a preliminary and parallel process to inter-organizational bargaining. Studies of intra-organizational bargaining within trade unions are an established part of industrial relations literature (e.g. Allen, 1954; Boraston et al, 1975). Within management, however, there is a paucity of work in this area (e.g. Winkler, 1974).

On the Merseyside large site there was, for example, a diversity of opinions within each party on the ideal method of recruitment and selection. In the mechanical trade group, both overall and within firms, the majority of shop stewards were divided fairly evenly between

favouring joint consultation on the issue and favouring joint decision making, with a sizeable minority favouring unilateral decision making. Operatives exhibited an even wider distribution of views, with about one-third favouring unilateral management decision making. On the management side in this trade group, two-thirds of managers favoured managerial unilateral decision making and one-third favoured joint consultation, whereas a sizeable minority of supervisors favoured joint decision making. Differences were also observed in the attitudes of personnel managers and line managers within firms, although no systematic data was collected on this.

Faced with such a situation, industrial relations should be able to describe the process by which each party sets its policies and tactics, and to explain why particular outcomes result. This will give insights into, for example, the degree of commitment within parties to the achievement of stated objectives in inter-organizational bargaining. Indeed, as will be discussed later, a weakness of the research design for the Merseyside site case study was insufficient emphasis on intra-organizational bargaining.

In studying rule making and interpretation, it is necessary to clarify the extent to which industrial relations should be concerned to explain the reasons for the behaviours and underlying attitudes related to this process. For industrial relations to seek comprehensively to explain why particular individuals hold particular attitudes to aspects of their current work situation and why they behave, individually and collectively, in certain ways is to cast the net incredibly widely and span much of several social science disciplines. Selection is necessary. Using evidence from the case study the range of behaviours and attitudes with

which industrial relations should be concerned is first discussed and the depth of concern is then indicated.

There are, as noted in Chapter 1, two broad categories of behaviour related to rule making and interpretation. Using the distinction made by Goodman et al (1975) and Wood et al (1975), there is that confined to the industrial relations system and that originating in the production system. Behaviour in the former category is directly and consciously related to rule making. An example is the use of unconstitutional industrial action in firm elec 1 which resulted in a change in the substantive rule governing walking time allowance. Industrial relations is concerned with such behaviour. The latter category covers both custom and practice, for example leaving jobs early at breaks and at the end of the day as was common in the mechanical trade group, and manifestations of unorganized conflict such as absenteeism. Here industrial relations is less concerned with the origins of behaviour to the extent that this was not consciously directed towards industrial relations rule making. For C & P, the concern is to explain how this behaviour is institutionalised into a de facto rule regulating employment relationships, and how it is maintained. For unorganized conflict, industrial relations is concerned with the process through which such behaviour influences rule making. For example, high labour turnover may lead management to unilaterally change rules to remove a source of discontent.

The range of attitudes with which industrial relations is concerned are, basically, the goals, values and expectations of the actors - both individuals and collectivities - related to job regulation in their

current work situation. On the action frame of reference, this includes knowledge of actors' perceptions of their workplace environment. For example, the case study illustrated the importance manual workers attributed to fairness, and the extent to which they viewed their current employer and the existing industrial relations system as fair.

In examining reasons why actors hold particular attitudes and behave in particular ways, workplace industrial relations is restricted to an examination of the influence of the current workplace environment, to a consideration of biographical factors arising out of the specific characteristics of the workplace environment, and to the use of basic biographical data such as age and sex as control variables when making comparisons between sub-groups. In the case study, the formality of administration existing in firms was considered as an aspect of the current environment likely to influence attitudes and their translation into behaviours. Experience of unemployment and experience of holding a supervisory post are examples of biographical factors arising out of the insecure employment environment, and their influences on attitudes and behaviours were examined. Age was used as a control variable, since older employees may be more likely to have favourable opinions towards their current employer and exhibit lower voluntary labour turnover.

Thus the case study on the Merseyside large site has contributed to an understanding of a modified rules approach to workplace industrial relations, and so to the debate on the scope of the subject. The approach, as clarified by the fieldwork, gives a distinct focus to the study of industrial relations and a basis for meaningful explanation of job regulation phenomena while avoiding that academic imperialism which claims for the subject the explanation of all aspects of employment relationships.

Findings from the case study on the Merseyside large site

An industrial relations study in a single workplace permits the collection of data on, and examination of relationships between, a wide range of variables within an environment which can be described and which is constant for sub-groups or for the whole workplace. Such a study can consider the influence of factors which vary between sub-groups in the workplace on internal job regulation.

The fieldwork setting for this thesis - a large industrial construction site - is an area where there has been very little systematic research. Thus descriptive data is of interest in itself as well as a necessary preliminary to the explanation of job regulation. Pilot studies on the Merseyside site, coupled with a survey of the relevant literature, led to the focus of the case study on the explanation of conflict and union involvement in rule making in the areas of labour recruitment/selection, utilisation and termination.

A most noticeable finding from the case study is the great diversity within the Merseyside large site. There are many significant differences by role and trade group in the biographical characteristics of contractors' operatives, shop stewards, supervisors and managers, and in their attitudes related to job regulation. There is great variety in the structural characteristics of firms, and in the form and amount of conflict and of union involvement in rule making found in them. It is this variety which provides the basis for explanation of job regulation phenomena.

The two sets of biographical characteristics which were identified as being of particular importance in the research setting of a large industrial construction site are those related to security of employment and to experience of holding other roles.

On the Merseyside site, stability of employment is highest in the civil trade group and lowest in the mechanical trade group, and greater among supervisors and managers than among manual workers. It is manual employees in the mechanical trade group who have experienced least stability of employment. They have the shortest length of service with their current employer (over a half have less than one year's service) and shortest expectations on duration of their current employment. They are least likely to have been transferred onto the Merseyside site by their current employer and most likely to have been made redundant by their previous employer (82%). They are most likely to have experienced unemployment, with about half of them having experienced a continuous period of over three months out of work, and are most likely to have worked away from home at some time.

On the final aspect of stability of employment noted above, 40% of all operatives and supervisors, and 60% of all shop stewards on the Merseyside site expressed unwillingness to work away from home in any circumstances. Those men who are willing to work away generally see this as the last alternative to unemployment. There is little evidence of 'chasers' moving from job to job in search of higher earnings.

Role mobility is the second biographical characteristic to be considered. Almost one quarter of mechanical operatives have held a supervisory post at some time, twice as many as the average for all trade groups. When

future intentions are considered, 41% of all operatives express willingness to take a supervisory post. 15% of all current supervisors on site have experienced a fluctuation down to operative status. These figures emphasise the often temporary and insecure nature of a supervisory post on large sites. The majority of managers on site started in the industry as operatives, although this was not the case for any of the civil engineering managers. They are typically chartered engineers.

The other aspect of role mobility concerns trade union posts. On the Merseyside site, 14% of operatives, 26% of supervisors and 29% of managers have been a shop steward at some time. The figures for the mechanical trade group are almost double these, illustrating that in many cases the post is a stepping stone to promotion in the firm. A quarter of all operatives express willingness to become shop stewards in the future. The evidence is that it is the same active minority of manual workers who take shop steward's posts again and again.

The case study collected data on a wide range of attitudes related to job regulation. The most important as influences on conflict and union involvement in rule making are those centred on perceptions of fairness and trust. Indeed, for manual employees, the perceived fairness of management was given as second only to pay as a feature distinguishing their best liked job.

Manual workers - and shop stewards in particular - have a considerable distrust of management and, linked with this, favour a greater amount of union involvement in rule making. Manuals in the civil trade group and older operatives are less likely to be distrustful.

Over the Merseyside site, about a half of the manuals do not think that management in their company is open and honest in its dealings with them. Almost one half of all operatives and two thirds of all stewards think all negotiations are biased in management's favour. In the area of recruitment and selection, nearly two thirds of all stewards (86% in the mechanical trade group) and one third of all operatives (56% in the mechanical trade group) spontaneously mention that certain men are unfairly excluded from employment in their company. Eighty per cent of all stewards and 40 per cent of operatives want union involvement in recruitment and selection, while the figures for the mechanical trade group are significantly higher. 90% of stewards and 65% of operatives favour a seniority system in the event of redundancy. 68% of stewards have issues which they wish to influence management over but are unable to do so. Linked with this distrust is the finding that 86% of stewards feel there are circumstances in which direct industrial action in breach of grievance procedure is justified.

In contrast, managers and supervisors overall express reasonable satisfaction with their manual employees and a belief in the fairness of the employment situation. The great majority of them rate the productivity and conscientiousness of their average operative as fairly high or fair, and are satisfied with the way the stewards in their company carry out their union duties. Supervisors and managers are significantly more likely than operatives or shop stewards to see the existing industrial relations system as fair. A surprisingly large number of managers (43%) think there are circumstances where unconstitutional industrial action by the manuals is justified.

Nevertheless, 80% of managers and a half of the supervisors believe in the existence of agitators who can disrupt a site without there being a genuine grievance. They are significantly more likely than manual workers to feel that there are certain people who should be excluded from employment on the site. Thus three quarters of managers and supervisors do not want any union involvement in recruitment and selection, and an even higher percentage favour management discretion over the selection of men for redundancy.

Within management, there is evidence of some friction and distrust between supervisors and managers, and this is concentrated in the mechanical trade group. 57% of mechanical supervisors (and 42% of all supervisors) would like more responsibility in the employment field. Although, overall, the majority of supervisors are satisfied with management's treatment of them and its handling of the manual labour force, this is so for a significantly smaller proportion of mechanical supervisors. Only about one half of the managers on site are satisfied with the loyalty and effectiveness of their supervisors. It is in firms where the manuals are perceived as working well that manager-supervisor relations are better.

Just as there is diversity in the biographical characteristics and attitudes of individuals on the Merseyside large site, so are there differences in the structural characteristics of firms. Their time on site ranges between a few months and thirty years, and their size between five and almost four hundred manual employees.

There are also differences between firms and trade groups in the form and amount of conflict exhibited. Firms in the scaffolding trade group have the worst strike record, with the average manual worker losing annually 8.3 days due to domestic strikes and 17.3 days due to non-domestic strikes. The latter figure reflects the national building strike in 1972. The second highest average domestic strike figure is found among firms in the mechanical trade group. Here the largest firm lost 11.3 days per manual worker annually. Domestic strike losses in the civil engineering firms are negligible. Across the site, domestic strikes are predominantly unconstitutional and their most common stated causes concern bonus earnings and challenges to managerial authority.

Four measures of unorganized conflict were used in the study. Voluntary absenteeism results in the loss of more man-days than domestic strikes. However, the former is generally more predictable and therefore less damaging to production. Absenteeism is highest in firms in the thermal insulation trade group. Here the average figure is approximately 7%, and the loss of man-days is double that for domestic and non-domestic strikes. Voluntary absenteeism in the electrical trade group is negligible.

Voluntary labour turnover is low over the whole site. Firms in the civil trade group, with an average annual figure of only 18.5%, are highest on this measure.

Only relative measures within trade groups are relevant for the examination of productivity and accidents. There is evidence that accident frequency in a firm is the least satisfactory of the measures of unorganized conflict as it alone varies with the median age of the labour force.

The case study throws light on the complex interrelationships between variables at different levels, and so contributes to an understanding of conflict and of union involvement in the making and administering of rules concerning labour recruitment/selection, utilisation and termination on the Merseyside large site.

Insecurity of employment is important in providing manual employees with a motive for conflict and for union involvement, and in influencing the attitudes and behaviours of supervisors and managers relevant to an understanding in these areas. Manual workers who currently have low security of employment, or who have experienced it, are more likely than other manual workers to view both their current employer and the existing industrial relations system as unfair and to desire a greater amount of union involvement in rule making. Supervisors who have short service with their current employer and who perceive their security of employment as low are more likely to be dissatisfied with the behaviour of both management and the manual labour force in their firm. This minority of supervisors is concentrated in the mechanical trade group, often in the same firms which have managers who are dissatisfied with both their supervisors and their manual employees. It is managers who have unfavourable opinions of the shop stewards in their firm who are most likely to take a rigid approach to industrial relations and to condemn all breaches of grievance procedure by the manuals.

A further influence on the amount of union involvement in rule making favoured in a firm is the actual amount currently found. Operatives and supervisors in particular are likely to draw their standards from the current situation, so that more involvement is favoured in firms where there is already some union involvement than in firms where the existing

amount of involvement is very low. Shop stewards and managers are more fixed in their views and less swayed by the current situation.

Within this broad framework, individuals' attitudes are shaded by their experiences of holding other roles or their ambitions to do so. Where occupancy of one role requires different behaviours in a certain area from those required in another role, then there is role adaptation and the current role dominates in shaping attitudes in comparison with current members of the role aspired to or experienced. Role change leads to attitude change. To give an example, supervisors who have been shop stewards favour a lesser amount of union involvement than current shop stewards, and shop stewards with ambitions to become supervisors favour a greater amount of union involvement than current supervisors. There is also evidence of self selection. Those with ambition for or experience of role change tend to hold intermediate attitudes which differ from the typical attitudes of more static members of both roles. It is, for example, the less radical shop stewards who are willing to take a supervisory post.

The workplace environment facilitates or constrains the expression of conflict and the achievement of union involvement in rule making.

Over the whole site higher levels of organized conflict are found in firms in which the operatives have short service, the manager has only been a short time in post, and the shop stewards view their firm as unfair to its manual employees. Higher levels of unorganized conflict are found in firms with short service operatives and an occupationally heterogeneous labour force. In such situations the new manager is less aware of the site culture, has not learnt the most effective way to behave, and is less likely to have been able to build up trust and

understanding with the stewards. There is also a learning period for a new labour force as they test out the management with industrial action, or individually withdraw from a job which they find unsatisfactory. In the less cohesive labour forces, individual withdrawal is the predominant means of expressing conflict.

There is additional evidence on factors influencing the form and amount of conflict in firms in the mechanical trade group. Larger firms experience proportionally higher levels of both organized and unorganized conflict. One explanatory mechanism is that the typically more formal and bureaucratic organization of the larger firms causes frustration and ill-will. Alongside this is often an inflexible attitude towards industrial relations by the manager. This is associated with higher levels of unorganized conflict as fractional bargaining is seen as less effective and discontent is manifested by individual withdrawal.

Another explanatory mechanism is key bargaining, with unions concentrating their efforts to win concessions on these larger firms.

Supervisors in the mechanical trade group have an influence on the levels of conflict. More organized and unorganized conflict is found in firms in which the supervisors are dissatisfied. Lack of loyalty and lack of training results in inappropriate behaviour towards the manual employees. Extreme laxness in supervision fuels fractional bargaining while; at the other extreme, excessive antagonism towards the manuals as a consequence of the supervisors' marginal status, increases discontent.

The actual amount of union involvement in rule making is greater in firms which experience higher levels of organized conflict. These firms

combine a felt need by the manual employee for union involvement with the ability to achieve it in the face of management opposition. The concentration of union involvement in the mechanical trade group can be explained by the presence of two large firms having short service, insecure, distrustful labour forces together with dissatisfied supervisors and distrustful and inexperienced managers taking a rigid approach to industrial relations. The attempt to recruit large numbers of employees in a short period provided an opportunity for trade unions to seek to achieve their goal of involvement in the recruitment/selection process. Close co-operation between shop stewards in the mechanical trade group meant that precedents established were carried over into other firms in the group.

Generalization of findings

The case study was confined to a single large site at a certain point in time. Strictly, then, all findings need to be qualified with the cautionary note that they apply within the specific economic, social, political, legal and technological environments of the research setting. There is evidence, however, that they do have wider applicability.

For the descriptive data on biographical characteristics and attitudes of contractors' employees, and structural characteristics and behaviours of contracting firms, the overall conclusion can be drawn that these are fairly typical of large industrial construction sites in the U.K. There is a large amount of inter-site and inter-firm mobility by construction employees, as illustrated particularly in Tables 5.1, 5.2, 5.6. Contracting firms are also mobile between sites. Comparative data from other large sites and to a more limited extent from the

wider construction industry, as presented in Chapters 5, 6, and 7, shows that, in very general terms, the Merseyside large site is not atypical of highly unionised sites. Informal questions to contractors' employees at all levels on the typicality of the Merseyside large site usually brought forth examples of sites which were "better" and "worse" on some criteria and the conclusion that this site was fairly average in comparison with other large sites. Data presented in Chapter 2 gives further evidence that the organization of the Merseyside site is not atypical of large petro-chemical sites. Bearing in mind the specific characteristics of each trade group, descriptive findings may also be generalizable to other similar unionised construction situations.

On the question of the general applicability of interrelationships among variables identified in the case study, the stress given throughout to multiple determining conditions needs to be re-emphasised. The strength of the case study lies in the breadth of its approach and in the fact that a wide environment can be fairly specifically described. Explanatory mechanisms underlying relationships are put forward, and it is not unreasonable to expect that they would apply in other similar environments. Nevertheless the testing of relationships - on conflict, on union involvement, on attitudes associated with role mobility, and on areas only touched on in the study such as unemployment and working away from home - is of interest and importance regardless of outcome. This will be discussed in the next section as an area for further research.

Areas for Further Research

Needs for further research arise from two sources: the detailed design of the case study itself, and the intrinsic limitations of any single case investigation.

In the former category, limited resources inevitably necessitate selection of aspects of job regulation for consideration, and selection of possible explanatory variables in the various categories in the model. For example, the case study on the Merseyside large site does not specifically examine the operation of disciplinary procedure, nor does it include pilferage in the behaviour category, nor does it make any detailed study of the influence of the technological environment, nor does it examine in detail the opinions and role of union full-time officials. Gaps such as these need to be filled to build up a comprehensive understanding of industrial relations on a large site.

A more fundamental weakness of the research design is insufficient emphasis on intra-organizational bargaining. The processes by which union policies and tactics are set by interactions between stewards and their members, between stewards intra- and inter-firm, and between stewards and union full-time officials; and by which line and staff managers decide management approaches, were not examined. These processes are of interest in themselves as a further dimension of workplace industrial relations, while the outcomes of such deliberations provide a basis for understanding behaviour in individual firms. In the case study, as noted in Chapter 4, rule of thumb empiricism rather than systematic investigation of the intra-organizational dynamics was used to ascertain the union and management attitudes of firms in relating these to behaviours in these firms. This

rough approximation is acceptable in an exploratory study aiming to cover a wide area. Subsequent studies with a narrower focus might usefully refine this approach.

A related weakness of the case study arises from the design of the sample. As noted in Chapter 4, the practicalities of data collection prohibited meaningful generalization of some of the attitudes of operatives and supervisors to the level of firms. Generalization could only be made to trade group level. This prevented the setting up and testing of hypotheses linking, for example, operatives' perceptions of the fairness of their company and levels of unorganized conflict in that firm.

A final consequence of the design of the case study pointing to areas for further research arises from it being basically cross-sectional as opposed to longitudinal in approach. The latter type of focus is better suited to an examination of process, and particularly of developments which take place over a considerable time scale such as the growth of customs and practice. A longitudinal study would be able to examine the influences of greater amounts of union involvement on levels of conflict. It would also be valuable for examining the characteristics of the different phases of the construction cycle - start-up, peak labour force, run-down. In the Merseyside study, firms were at different stages in the cycle and records data spanning the various phases were aggregated.

Several further areas for research arise out of the intrinsic limitations of a single case study. Needs for a greater understanding of industrial relations on large industrial construction sites in general will be considered first.

As noted in Chapter 3, the Merseyside study can only investigate the influence of factors which vary between firms on the site. Thus the study cannot, for example, examine the influence of site facilities on levels of conflict since these facilities are provided by the client and are standardised across the site. There is the further practical restriction that the Merseyside study cannot really investigate the influence of factors which vary only between trade groups and are common to firms within a group. The presence of only five trade groups, and the large number of variables including agreements, technology, trade unions, payment systems, which vary between them means that it is not really possible to isolate the effects of single variables.

Comparative studies on other large sites are needed to broaden the understanding of industrial relations in this type of work. Important questions on which such studies could throw light include the following: the effects of site agreements covering wider or narrower groups of firms; the influence of different types of payment systems; the influence of overall site size, number of contractors and speed of build-up of the total labour force; the influence of different degrees of client involvement in site industrial relations; the existence or otherwise of specific regional cultures on large sites. Of course, in such comparative studies the problems of isolating the effects of specified groups of factors will have to be dealt with.

Fieldwork on other large sites can serve an additional purpose in providing an opportunity to test the relationships found in the Merseyside study. Indeed this could usefully be extended to other employment situations sharing many or a few of the characteristics of large sites. Whether or not the relationships found on the Merseyside

site were confirmed, important insights into the mechanisms acting would be gained. A greater understanding of behaviour on the Merseyside large site and in the other areas studied would result, making a more general contribution to an understanding of workplace industrial relations.

The findings from the case study on factors affecting the form and amount of conflict in firms, and the extent of union involvement could be tested in a variety of research settings. For example, shipbuilding provides an employment environment sharing many of the characteristics of large sites, but with less geographical mobility of labour and a long tradition of inter-craft differences. Hotels provide a typically insecure employment environment, but have low levels of unionization compared with large sites.

The theories of self-selection and role adaptation in explaining the attitudes of the role mobile could be tested by studies in a range of industries. This investigation could be extended into the practically important area of the relationship between role mobility and other behaviours related to job regulation. It could focus on questions such as "Do managers who have been shop stewards typically behave differently from other managers, and why?". Such research could provide a useful balance to speculation and assertion in this area.

CONTRIBUTION TO SOLVING CLIENT PROBLEMS

In funding the research project, the client company hoped that it would help them to "improve" the management of industrial relations among contractors on their refinery site. Their goals were that construction

projects be completed on time, at the lowest possible cost and with the minimum disruption to the ongoing petroleum and chemicals production and distribution activity. The research was restricted to the consideration of industrial relations aspects of the management of the Merseyside large site, and it was acknowledged that any recommendations might have to be revised in the light of technical and financial considerations.

The evidence from the study on the Merseyside site - as presented in Chapters 5 to 8 of this thesis and summarised earlier in this chapter - led to recommendations at both a long range planning level and an operational level. Some were implementable directly by the client, but other rested on the influence the client could bring to bear on the other parties on site. It was repeatedly stressed to the client that these recommendations were not exhaustive. Indeed, a major utility of the research was seen as the provision of a pool of information to be of help in diagnosing situations which might arise and in predicting the likely industrial relations consequence of possible courses of action which might be proposed. Finally, a cautionary note was sounded on generalizing findings temporally or spacially.

The long term planning recommendations concerned the overall structure of the site and the scope and content of agreements. It was recommended that the client schedule the progress of work so as to allow contractors to build up their labour forces on site slowly, and where possible release work to allow continuity on site to contractors who are performing reasonably adequately. In awarding contracts, the generally "better" industrial relations performance of firms offering

reasonable security of employment to manual workers and supervisors, and with managers having a sensitive and flexible approach to industrial relations, should be borne in mind. It was stressed to the client that larger firms were not intrinsically more conflict prone. Indeed, depending on the type and scope of agreements used, a proliferation in the number of contracting firms could in itself cause problems (cf. NEDO, 1970a, especially pp.19-21). It was recommended that wherever possible physical or temporal separation should be used to reduce the potential frictions between firms working under different terms and conditions of employment.

On the content of agreements, the need for procedures to be seen to be fair and to reflect the realities of the power situation on site was stressed. In order to increase the chances of disputes procedure being used, it was recommended that a status quo provision be included, so that management decisions to which there is strong union objection would not be implemented until procedure had been invoked and if necessary exhausted. Existing custom and practice should be included in this provision. Senior shop stewards and the client should be directly involved in the higher levels of disputes procedure. In the recruitment and selection area it was recommended that formal joint management-union decision making be implemented to remove a source of friction and lead to firms obtaining better labour forces. The employment of an independent safety officer on site was recommended as a means of introducing some greater objectivity into conflicts which were genuinely ones of safety, and of reducing the claim of safety considerations as a legitimation for behaviour motivated by other causes. This recommendation has, of course, been somewhat overtaken by provisions in the Health and Safety at Work Act.

The recommendations at an operational level stressed a wider role for the client in site industrial relations. Client industrial relations specialists should train new contractors' managers on site procedures, policies and customs and practices so as to shorten their learning period in this particular environment, and should act as advisers on day to day industrial relations problems. A particular part of this role would be trying to ensure that separate firms working under common agreements apply rules consistently. An example is the question of releasing men early due to inclement weather.

To aid client effectiveness in this wider role, two related recommendations were made. One was that training be introduced for client industrial relations specialists to increase their understanding of industrial relations on large sites and to improve their consultancy skills in interacting with contractors' employees at all levels. The other was that client specialists set up measures to monitor the performance of contracting firms, and over time relate these to structural characteristics and - to the extent that they could be measured - attitudinal characteristics of firms. This would serve to identify problem areas and increase understanding of the operation of this industrial relations system, and so lead to refinements in client conduct at policy and at operational levels.

Additionally at an operation level it was recommended that the client introduce training to raise the awareness of his engineers to the possible industrial relations consequences of their activities, and initiate an induction course for all contractors' manual workers and supervisors. The latter should give particular emphasis to an explanation of the audited bonus scheme, since this is an area where

many misunderstandings occur. An important related element would be additional training for bonus stewards to develop their role as trusted experts on the bonus scheme to whom operatives would turn for explanation.

In reviewing the extent to which these recommendations were accepted and implemented, the problems of the time scale of the construction activity and of the research project need to be considered. By the time the report was presented the site was beginning to run down and the implementation of many of the recommendations would have to await the commencement of a major new construction phase. Nevertheless, the degree of acceptance in principle of the recommendations was disappointing.

In two areas in particular the client was reluctant to accept the proposals made. Status quo in disputes procedure and union involvement in recruitment and selection were rejected. Beliefs in the dire consequences of publicly accepting any erosion of managerial "rights" and on the disruptive effect of troublemakers on site were too ingrained to be swayed by any evidence in the report. Greater overt involvement of client in site industrial relations and of senior stewards in procedure was seen to have disadvantages. There was a strong preference for informal contacts permitting the client to remain aloof from any decisions of contractors, and an unwillingness to increase the formal role of stewards.

These principled objections, coupled with the run-down of the site, the retirement of the refinery manager and the dispersion of many of the key client industrial relations and construction personnel to other

locations, effectively eliminated any chances of meaningful discussion with the other parties on site. In particular a meeting proposed by the researchers to bring together client, contractors and unions did not take place. It had been hoped that such a meeting would provide a forum to test out reactions to ideas in the report and act as a catalyst for the parties to start planning about lines of change they would like to see. The fact that the parties would by that time be removed from direct interaction in an ongoing construction situation was felt to increase the chances of a useful exchange.

Offers from the researchers to discuss the report separately with contractors and with unions were not taken up. The client's position, coupled with the removal of immediate pressure for problem solving as the construction phase came to a close and labour forces and contracting firms dispersed, all acted to lessen interest in the research.

The reluctance of the parties on site to consider the implications of the research findings emphasises the difficulty in simultaneously trying to make an academic contribution to knowledge and help a client to solve practical problems.

As noted in Chapter 4, the basic problem from the academic standpoint in being financed by the client company is that of establishing and maintaining independence. It is necessary to win the trust of the other parties on site so that meaningful data can be collected, and to obtain control over the direction and pace of the research. However, too little client involvement in the design of the research and in data collection, analysis and interpretation can lead to a lack of commitment to the project and its conclusions.

The study on the Merseyside large site succeeded to a large measure in obtaining independence from the client. The co-operation of all parties was won for the collection of sensitive data relevant not only to client needs but also to the theoretical focus of the study. The definition of relevance was, however, the researchers and not the clients. On the pace of the research, and particularly over the commencement of the major data collection fieldwork, client pressures coupled with the natural life cycle of the site led to restrictions on the time available to design the research. One implication of this was that there was no opportunity for redesign of the fieldwork to give a greater emphasis to intra-organizational bargaining.

This degree of independence was established at the cost of the client ascribing an 'expert' role to the researcher and withdrawing from any close involvement in the conduct of the study. This explains the absence of any real change in client attitudes as a result of the analysis and recommendations contained in the study. Efforts to keep the client - and indeed contractors and trade unions - informed and interested in the progress of the research were insufficient to build commitment in the absence of involvement in the formulation of detailed research questions and interpretation of findings.

There seems no easy middle course. Closer involvement of any one party on site could well introduce a particular bias into the study and increase problems of the confidentiality and anonymity of data provided by the other parties. This has negative consequences for the co-operation and commitment of the other parties. Some joint involvement of all parties presents problems if only one is the paymaster, and anyway seems impracticable given the lack of trust existing in

this particular employment environment. This problem remains in the general case.

However, in the particular case, the confidence, knowledge and credibility with practitioners gained in this study could, in a future research project in the industry permit closer liaison with the client over research objectives, design and interpretation of findings with less fear of detrimental consequences for the academic goals. This present study could serve as evidence to all parties of the integrity of the researchers and the potential contribution they have to make. Such liaison could have benefits in both the academic and practical spheres. In the practical area, if the client accepted recommendations for change he has a great deal of latent authority and influence which could be brought to bear on the other parties on site to achieve their implementation.

CONCLUSIONS

Through the medium of a case study on a large industrial construction site, this thesis has made contributions in three areas.

In the first area, a contribution has been made to defining the scope of workplace industrial relations. Application of a modified rules approach to industrial relations to the fieldwork setting has led to interpretations and clarifications which give the subject a distinct focus and a basis for meaningful explanation of job regulation phenomena, while avoiding excessive overlap with other social science fields of study.

Four principal points may be noted. One is that industrial relations should be concerned with explaining the content of substantive and non-creative procedural rules regulating jobs only to the extent that it illuminates the goals, values and powers of the actors. A second is that the concern of industrial relations with the process of rule making and interpretation should be restricted to areas where there is actual, attempted or desired involvement by unions or workgroups. A third is that workplace industrial relations should give primary emphasis to a consideration of the current workplace environment and biographical factors arising out of the specific characteristics of this environment as influences on the attitudes of actors related to job regulation in their current workplace. The final point is that industrial relations should be concerned with explaining behaviour only where this is consciously directed towards rule making.

In the second area, a contribution has been made to an understanding of industrial relations on a large industrial construction site, and to wider workplace industrial relations. The consideration of the backgrounds, attitudes and behaviours of individuals, the behaviours of collectivities, the workplace environment and the rules - possible in an intensive case study - has illuminated the great diversity on site and the complex interrelationships among variables.

Findings on three aspects will be briefly noted. One is that higher levels of industrial conflict are associated with an insecure employment situation where there is distrust among the parties and inexperience on the part of managers and supervisors, with a rigid approach to industrial relations by management and with external union pressure. Less cohesive labour forces are likely to express conflict in the form

of individual withdrawal rather than through collective action. A second is that higher levels of union involvement in rule making are found in firms in which a wish by manual employees for such involvement - as influenced by distrust, low security, and a perception of involvement as normal - is combined with a stimulus for such involvement and an ability to achieve it through organized conflict. A third is that individuals with ambitions for or experience of role change tend to hold intermediate attitudes differing from those of the static members of roles, and that their attitudes adapt to be consistent with behaviours required in specific roles.

The third and final area in which the thesis has made a contribution is that of client-researcher relationships. The independence from the client felt necessary for the conduct of the academic study was established at the cost of low commitment by the client to the project and its conclusions. This is a problem which can only be overcome by the gradual building of trust, respect and credibility between client and researcher.

APPENDIX 1

INTERVIEW SCHEDULES

The full interview schedule is presented for operatives. For shop stewards, supervisors and managers only those sheets from the interview schedule which include questions additional to those asked of the operatives are presented.

The options noted under qualitative questions are either prompts or a few anticipated responses. They do not restrict the range of responses recorded.

OPERATIVES

IDENTIFICATION DATA

Complete pre- and post- interview

- (i) Identification Number of Interviewee
- (ii) Identification Number of Firm (FRAME A)
- (iii) Identification Number of Trade Group (FRAME B)
- (iv) Size of firm on site
 - Under 10 men 51 -- 100
 - 11 - 20 101 - 200
 - 21 - 30 201 - 500
 - 31 - 50 Over 500
- (v) Continuous length of time of firm on site
 - Under 3 mths > 3 yr <= 5 yrs
 - 4 mths - 1 yr > 5 yr <= 10 yrs
 - > 1 yr <= 3 yrs Over 10 yrs
- (vi) Classification of interviewee
 - Senior Steward Labourer
 - Steward Apprentice
 - Bonus Steward Supervisor
 - Craftsman Manager
 - Semi-skilled I.R.O.
- (vii) Situation of interviewee
 - Paid lodging allowance
 - Not paid lodging allowance
- (viii) Date of interview
- (ix) Place of interview
- (x) Remarks on conduct of interview

(A) BASIC (IMPERSONAL) DATA

A.1 Title of job on site? (FRAME C)

A.2 Member of a trade union?

Refused	H&D	UCATT
Not member	ETU	TGWU
AUEW (CEU)	PTU	GMWU
AUEW (AEU)	ASOB	Other

A.3 Currently (or within last 3 months on this job)
a steward?

Refused	Yes	No
---------	-----	----

A.4. Currently paid lodging allowance?

Refused	Yes	No
---------	-----	----

A.5 Location of present permanent home?

→ Wirral	North	Scotland
Liverpool	N.E.	Wales
Greater	Midlands	Ulster
Merseyside	East Anglia	Eire
Cheshire	South East	U.S.A.
Lancashire	South West	Other
→ Yorkshire		

A.6 Original geographical origins?

A.7 Travel to work daily:

In company transport

Make own arrangements

(B) PRESENT JOB

B.1 Regularly on one contract during last 3 months?

None	CD IV
Aromatics	Other (pl.specify)

B.2 How is work organized?

Working group size?

Constant/floating group membership?

Closeness of supervision?

Others

B.3 Best things about working on this site?

Pay	Type of work
Amenities	5-day week
Security	Pace of work

B.4 Worst things about working on this site?

Pay	Type of work
Amenities	5-day week
Insecurity	Pace of work

B.5 (a) Any groups (e.g. trades/firms) in a more favourable position than yourselves?

Firm (s) (FRAME A)
Trade(s) (FRAME B)

(b) In what way?

Pay	Hours
Amenities	Pace of work
Security	

B.5 (c) Why in this position?

Strong Union	Intelligence of men
Good Employer	Solidarity of men
Skill of work	Bargaining position

B.6 (a) Any groups (e.g. trades/firms) in a less favourable position than yourselves?

Firm (s) (FRAME A)
Trade(s) (FRAME B)

(b) In what way?

Pay	Hours
Amenities	Pace of work
Security	

(c) Why in this position?

Weak Union	Intelligence of men
Bad Employer	Solidarity of men
Skill of work	Bargaining position

(c) CAREER HISTORY (AND FUTURE)

C.1 (a) Length of time currently employed by this company on Stanlow?

Under 3 months	>3 yrs ≤ 5 yrs
4 mths - 1 yr	>5 yrs ≤ 10 yrs
>1 yr ≤ 3 yrs	Over 10 years

(b) Continuously on site?

All time	<50% ≥ 25%
>75% of time	Under 25% of time
<75% ≥ 50%	

C.2 Job before joining this company on Stanlow?

(a) Employer?

Same contractor	Shell
Another contractor	Other (pl.specify)

(b) Your job?

Apprentice	Supervisor
Same as now	Other (pl.specify)

(c) Location?

Stanlow	Greater Merseyside
Burmah	Other (pl.specify)

(d) Type of work?

Small site	Shipyard
Large site	Maintenance
	Other (pl.specify)

C.3 Paid lodging allowance?

Refused	Yes	No
---------	-----	----

C.4 Length of time employed?

Under 3 months	>3 yrs ≤ 5 yrs
4 mths - 1 yr	>5 yrs ≤ 10 yrs
>1 yr ≤ 3 yrs	Over 10 years

C.5 Reason for leaving?

(a) Involuntary

Redundant	Other (pl.specify)
Sacked	

(b) Voluntary

Amenities	Disputes
Hours	Supervision
Pay	Other (pl.specify)

C.6 Why came to Stanlow?

(a) Other jobs available?
Yes No Don't Know

(b) If yes, factors in favour of Stanlow
Pay Type of work
Amenities 5 day week
Security Pace of work

C.7 Job before C.2?

(a) Employer?

Same contractor Shell
Another contractor Other (pl.specify)

(b) Your job?

Apprentice Supervisor
Same as now Other (pl.specify)

(c) Location?

Stanlow Greater Merseyside
Burmah Other (pl.specify)

(d) Type of work?

Small site Maintenance
Large site Other (pl.specify)
Shipyard

C.8 Paid lodging allowance?

Refused Yes No

C.9 Length of time employed?

Under 3 months > 3 yrs <= 5 yrs
4 mths - 1 yr > 5 yrs <= 10 yrs
> 1 yr <= 3 yrs Over 10 years

C.10 Reason for leaving?

- (a) Involuntary
Redundant Other (pl.specify)
Sacked
- (b) Voluntary
Amenities Disputes
Hours Supervision
Pay Other (pl.specify)

C.11 Longest time you have ever had a job with one company?

Under 3 months > 3 yrs ≤ 5 yrs
4 mths - 1 yr > 5 yrs ≤ 10 yrs
>1 yr ≤ 3 yrs Over 10 years

C.12 Longest period involuntarily out of work in last 10 years?

Under 1 month > 6 months ≤ 1 yr
1 month - 3 months Over 1 yr
> 3 months ≤ 6 months

C.13 Ever, within last 10 years, had job involving you living away from home for more than 1 month?

Yes No

C.14 (a) Which job have you preferred best?

Present job Other job

(b) Why?

Amenities Disputes
Hours Supervision
Pay Type of work
Employer Security

C.15 How long do you think you will have leave to continue to work on Stanlow?

Under 3 months > 3 yrs ≤ 5 yrs
4 mths - 1 yr > 5 yrs ≤ 10 yrs
>1 yr ≤ 3 yrs Over 10 years

C.16 Able to transfer with company to another site?

Yes	No
Probably	Don't Know
Perhaps	

C.17 Preference for next job?

Lodgings	Home
----------	------

C.18 Prepared to live in lodgings to obtain large sites work?

Yes	No
-----	----

C.19 Other openings available to you?

Town work	Factory Maintenance
Local authorities	Other (pl.specify)
Shipyards	

(D) SUPERVISION

D.1 Ever held a full-time supervisory position?

Yes No

D.2 Ever held a working supervisory position?

Yes No

D.3 Ever been offered job as full-time supervisor?

Yes No

D.4 If offered chance in future to become full-time supervisor, would you accept?

(a) Yes

Pay	Power
Job interest	Status
Security	Other

(b) No

Pay	Type of workmen
Nature of job	Lose friends
Security	Present job
Union activity	Mobility
	Other

D.5 Either/If yes,

Why do some people not take job?

Pay	Type of workmen
Nature of job	Lose friends
Security	Present job
Union activity	Mobility
	Other

Or/If no,

Why did your supervisors take job?

Pay	Embarrassed on tools
Security	Power
Status	Other

(E) TRADE UNION ACTIVITY

E.1 Currently (or within last 3 months) hold union office off site?

No office	District Office
Branch Secretary	Executive Committee
Branch Chairman	Other (pl.specify)
Branch Committee	

E.2 Any other union office on or off site in last 5 years?

No office	Branch Committee
Steward	District Office
Branch Secretary	Executive Committee
Branch Chairman	Other (pl.specify)

E.3 Would you become steward (again) in future?

(a) Yes.

Ideology	Ability
Interest of stewards job	Satisfaction
Boredom of own job	Other (pl.specify)
Easy time	

(b) No.

Too young	Difficult members
Lack confidence	Too much time
Too risky	Other (pl.specify)

E.4 If No,

Why did your steward take job?

Ideology	Ability
Interest of stewards job	Satisfaction
Boredom of own job	Other (pl.specify)
Easy time	

E.5 Performance of your present steward?

(a) With Management?

Too forceful	O.K.	Not forceful enough
--------------	------	---------------------

E.5 (b) With men?

Takes up too
many points

O.K.

Doesn't consult
enough

E.6 Where is your union branch located?

- (a) Within $\frac{1}{2}$ hr. of site
- (b) Within $\frac{1}{2}$ hr. of home
- (c) Greater Merseyside, and more than $\frac{1}{2}$ hr. journey
- (d) Elsewhere (pl. specify)

E.7 Have you, within last 12 months attended any
branch meetings?

None

Most

One

All

A few

E.8 Name of F.T.O. for this site?

Correct name

Incorrect name

No name

E.9 Extent to which F.T.O. understands site?

Very well

Fairly well

A little

Not at all

E.10 Extent to which you should follow F.T.O.'s advice?

Always

When steward advises

When majority of men advise

When I agree

(F) BEHAVIOUR ON SITE

F.1 Describe an incident(s) (personal or second hand) within last 6 months that you felt particularly strongly about e.g. dispute, action of manager/supervisor/steward.

(Probes: Values in self, values admired/criticised in others, perceptions of situations and parties)

F.2 (a) What is attitude of your company to timekeeping?

Always dock pay ————— Never dock pay
Dismissal matter ————— Don't mind
Very strict on hours ————— Very lax

(b) What is your attitude to timekeeping? Why?

Fair days work, then away
Do minimum possible, company doesn't care about me
Company gives me employment, therefore loyalty to them

F.3 Are there any custom and practices in your trade that management don't fully accept?

F.4 First in - Last out

(a) Does your company operate this?

Yes

With certain provisos (pl. specify)

No

(b) In what circumstances would you sway the principle?

Never

Keep old men

Keep young men

Keep local man

Keep good timekeeper

Keep good workmen

F.5 Employment

- (a) Are there men who you, personally, would prefer not to see employed on Stanlow?

Exclude no-one

Militants

Poor workmen

Lazy men

Men in 'wrong' unions

Out-of-town men

Active unionists

- (b) Is there such a thing as a militant who can swing a site?

No

Yes, with genuine grievance

Yes, without genuine grievance

- (c) Do you accept the right of management, and management alone, to decide who they will employ?

Yes

Yes, but first consult with stewards

No, joint decision with stewards

No, stewards should decide

- (d) Should recruitment be restricted to men on Union unemployed lists?

Yes

No, because lists only cover local area

No, because unions favour their 'friends'

- F.6 Are there any issues which you want to discuss with management, but which they regard as their prerogative to decide?

None

Dismissal

Organization of work

Tender prices

Pre-fabricated parts

Recruitment

(G) INDUSTRIAL RELATIONS

G.1 On management side, who has real influence on industrial relations?
Company Site Management Shell
Company Head Office Other (pl. specify)

G.2 Influence of Shell over your management on industrial relations?
A lot None
Some Don't know
A little

G.3 Do you think influence of Shell is a good or a bad thing?
Good Bad
Fair Don't know

G.4 Procedure

(a) Any circumstances in which you would feel justified in breaking grievance procedure?
None
When management breaks it
When management inactive

(b). Have you ever broken the agreement? (e.g. sudden walk out) - why?
Never
Anger at management
Management provocation

(c) Have your management ever broken procedure?

(L) ATTITUDE SCALE

Instructions: Managers - Self + Sen.Steward
 Steward - Self + Manager
 Others - Self only

- L.1 A good tradesman is hardly ever out of work
- L.2 Membership of a trade union for operatives is a licence to work, and nothing more
- L.3 It is impossible for management and men to work together as a team, because they are really on opposite sides
- L.4 Most men in this company take a pride in their workmanship
- L.5 (Name of Company)..... are ruthless employers
- L.6 Instead of having a 1-day token strike in support of U.C.S, it would have been better to work that day and donate the earnings
- L.7 The best way for a man on the tools to ensure continuity of employment for himself is to try to spin out a job as long as possible
- L.8 All negotiations are biased in Management's favour
- L.9 Management in (Name of Company) are open and honest in their dealings with their workers
- L.10 (Name of Company) take a real interest in the welfare of their employees
- L.11 Stewards in (Name of Company)..... are open and honest in their dealings with management

	Strongly Agree	Agree	Don't Know	Disagree	Strongly Disagree
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					
Self Other					

(X) PERSONAL DETAILS

X.1 Age?

Under 20	36 - 50
20 - 25	Over 50
26 - 35	

X.2 Dependents?

Wife
Children 1, 2, 3, 4, 5, 6+

X.3 Do you meet socially with:

(a) People who work on this site?

Frequently
Occasionally
Time-to-time
Never

(b) People in your trade from other sites?

Frequently
Occasionally
Time-to-time
Never

(Y) SUPPLEMENTARY POINTS

Y.1 Payment System?

Y.2 Hours of work?

Y.3 Overtime?

ADDITIONAL QUESTIONS FOR SHOP STEWARDS

(B) PRESENT JOB (INCLUDING SHOP STEWARDS DUTIES)

B.1 How much time spent on steward's duties

(a) at work? All time
 75%+
 Other

(b) In out-of-work hours?

B.2 Who pays for your time when on steward's duties?

Contractor
Shell
Workmates

B.3 Why did you take steward's job?

Ideological reasons
Pressure from workmates
Interest of steward's job
Boredom of site job
For easier time
To bring calm to site
Other

B.4 (a) How long have you currently been in office?

Under 3 months > 3 yrs ≤ 5 yrs
4 months - 1 year More than 5 years
> 1 yr ≤ 3 yrs

(b) Was there competition for post?

None 2 others
1 other person 3 or more

B.5 Have you held steward's job in past?

No, this is first time
Once
Twice
Three times
- More than three times

B.6 Most difficult part of steward's job?

- None - an easy job
- Negotiations with management
- Obtaining access to management
- Dealing with men
- Mastering facts of situation

B.7 Do you take up with management every issue your members raise?

- | | |
|----------|------------|
| All | Few |
| Majority | Hardly any |
| Half | None |

Examples of issues you don't take up:-

B.8 Compare average member with yourself on concern about:

- (a) Domestic issues within firm
- (b) Site wide Issues
- (c) Extra-site issues

Average member is		
More Concerned	About same	Less Concerned

Examples?

B.9 (i) Contacts with other stewards on site?

- (a) Stewards in other firms working under your agreement
- (b) Mechanical
- (c) Lagging
- (d) Electrical
- (e) Civil
- (f) Scaffolding
- (g) Shell

Regular	Frequent	Occasional	None

(ii) Is there any group you would like more contact with?

Mechanical
Lagging
Electrical

Civil
Scaffolding
Shell

B.10 (a) Any groups (e.g. trades/firms) in a more favourable position than yourselves?

Firm(s) (FRAME A)
Trade(s) (FRAME B)

(b) In what way?

Pay
Amenities
Security

Hours
Pace of work

(c) Why in this position?

Strong union
Good employer
Skill of work

Intelligence of men
Solidarity of men
Bargaining position

(K) TRADE UNIONS

K.1 Do you currently (or within last 3 months) hold trade union off site?

No office
Branch Sec
Branch Chairman
Branch Committee

District office
Executive Committee
Other (pl. specify)

K.2 Within last 5 years hold union office off site (other than K.1)?

No office
Branch Sec.
Branch Chairman
Branch Committee

District office
Executive Committee
Other (pl. specify)

K.3 Ambitions in union?

Branch Office
District Office
Executive Committee
F.T.O.

K.4 Where is your union branch located?

- (a) Within $\frac{1}{2}$ hr of site
- (b) Within $\frac{1}{2}$ hr of home
- (c) Greater Merseyside and more than $\frac{1}{2}$ hr journey
- (d) Elsewhere (pl. specify)

K.5 Branch meetings attended in last 12 months?

None
One
A few

Most
All

K.6 Name of F.T.O. for this site?

Current name
Incorrect name
No name

K.7 How many times have you contacted your F.T.O. about this site in last 12 months?

None
1
2

3
4
5+

K.8 Would you like to see more of your F.T.O?

Yes

No.

D.K.

Why?

His advice

His influence with management

His knowledge

K.9 Extent to which F.T.O. understands site?

Very well

Fairly well

A little

Not at all

ADDITIONAL QUESTIONS FOR SUPERVISORS

(A) BASIC (IMPERSONAL) DATA

A.1 Job title?

Foreman
Supervisor

Superintendent
Other (pl. specify)

A.2 Status?

Monthly paid staff
Weekly staff
Hourly paid

A.3 Classification?

Working foreman
Full-time 1st level supervisor
2nd level supervisor

A.4 Numbers supervised?

(a) Currently (b) In past on this job

1st level supervisors
Working chargehands
Operatives

A.5. Currently paid lodging allowance?

Refused Yes No

A.6 Location of present permanent home?

↓	Wirral	North	Scotland
	Liverpool	N.E.	Wales
	Greater Merseyside	Midlands	Ulster
	Cheshire	East Anglia	Eire
	Lancashire	South East	U.S.A.
↗	Yorkshire	South West	Other

A.7 Original geographical origins?

(B) PRESENT JOB

B.1 - Present duties and responsibilities?

- Progressing work
- Obtaining materials
- Liason with client
- Allocating labour
- Technical advice
- Supervision

Close/Open
Same group/Different groups

- Personnel/I.R.

Recruitment
Dismissal
Reprimand

Stop Money
Pay condition money

- Other

B.2 On which single activity do you spend most time?

Technical
Organization

Personnel/I.R.
Supervision

B.3 Best things about your job on this site?

Pay
Amenities.
Security

Job itself
Relationships
Power

B.4 Worst things about your job on this site?

Pay	Job itself
Amenities	Relationships
Security	Power

B.5 (a) Would you like more responsibility in dealing with your men?

No more	Stop Money
Recruitment	Pay condition money
Dismissal	Reprimand

(b) Why?

Knowledge of job	Repercussions
Knowledge of men	Poor decisions now

B.6 (a) Are you popular with your men?

V.popular	V.unpopular
Q.popular	Q.unpopular
Fair	Don't Know

(b) Do you think it is important to be popular?

V.important	V.unimportant
Q.important	Q.unimportant
Fair	Don't know

(c) Why?

Get job done
Make working life tolerable

(C) OTHER GROUPS

- Operatives

C.1 Rate your 'average' operative on:

- (a) Conscientiousness
- (b) Quality of Workmanship
- (c) Productivity

V.High	F.High	Medium	F.Low	V.Low

C.2 Proportion of your operatives locally recruited?

All Majority Few None

- Shop Steward

C.3 Do you, directly, supervise a shop steward?

Yes No

C.4 Compare steward, as a workman, with 'average' operative on:

- (a) Conscientiousness
- (b) Quality of workmanship
- (c) Productivity

Shop Steward is		
Above average	About same	Below average

C.5 Why do you think steward took job as workplace representative?

Ideology	Boredom with own job
Easy time	Interest of steward's job
To cause trouble	Ability

C.6 How satisfied are your men with steward's performance?

D.K. V.Satisfied O.K. Dissatisfied

Why?	Representative	Reasonable
	Forceful	Active

• - Manager

C.7 How well does your manager understand labour force?

Very well Quite well Fair Poorly Not at all

C.8 Does management back up your decisions in problems concerning labour force?

Always Usually 50-50 Seldom Never

C.9 How much attention does management pay to what steward says?

Too much About right Too little

(A) BASIC (IMPERSONAL) DATA

A.1 Job title?

Site Agent
Engineer

I.R.O.
Other (pl.specify)

A.2 Status?

Monthly paid staff
Weekly staff
Hourly paid

A.3 Length of time continuously employed by this company?

Under 3 months	>3 yrs ≤5 yrs
4 mths - 1 yr	>5 yrs ≤10 yrs
>1 yr ≤3 yrs	Over 10 years

A.4 Title of first job with this company?

Office?	(pl.specify)
Technical?	(" ")
Supervisory?	(" ")
Manual?	(FRAME C)

A.5 Length of time continuously employed by this company on Stanlow?

Under 3 months	>3 yrs ≤5 yrs
4 mths - 1 yr	>5 yrs ≤10 yrs
>1 yr ≤3 yrs	Over 10 years

A.6 Title of first job with this company on Stanlow?

Office?	(pl.specify)
Technical?	(" ")
Supervisory?	(" ")
Manual?	(FRAME C)

(B) PRESENT JOB

B.1 Present duties and responsibilities?

(a) Technical

(b) Financial

(c) Marketing

(d) Personnel/I.R.

Recruitment
Dismissal

Promotion
Money (pl. specify)

(e) Other

B.2 On which single activity do you spend most time?

Technical
Financial
Marketing

Personnel
Other

B.3 Proportion of time on industrial relations?

$\leq 5\%$	$> 30\%$	$\leq 70\%$
$> 5\%$	$\leq 15\%$	$> 70\%$
$> 15\%$	$\leq 30\%$	All time

B.4 To whom are you responsible?

on site?
off site?

Functional Manager

General Manager

B.5 Frequency of contact with Superior?

Daily	Quarterly
Weekly	Annually
Monthly	Never

B.6 Best things about your job on this site?

Extrinsic Rewards	Power
Relationships	Achievement
Technical Activity	

B.7 Worst things about your job on this site?

Extrinsic Rewards	Power
Relationships	Achievement
Technical Activity	

(C) OTHER GROUPS

Foremen/Supervisors

C.1 What responsibility have your first line supervisors (foremen) in I.R. matters?

- Reprimand
- Stop money
- Decide condition money
- Recommend disciplinary action

C.2 Should they have more?

Yes

- Know job
- Know men

- Loyal/Responsible
- Other (pl.specify)

No

- Ability
- Loyalty

- Repercussions
- Other (pl.specify)

C.3 Rate your 'average' foreman on:

- (a) Loyalty to company
- (b) Getting optimum amount of work from men
- (c) Firmness with men

V.High	F.High	Medium	F.Low	V.Low

C.4 Proportion of foremen locally recruited?

All Majority Few None

C.5 Rate your 'average' operative on:

- (a) Conscientiousness
- (b) Quality of Workmanship
- (c) Productivity

V.High	F.High	Medium	F.Low	V.Low

Shop Stewards

C.6 Compare your 'average' shop steward, as a workman, with your 'average' operative on:-

- (a) Conscientiousness
- (b) Quality of Workmanship
- (c) Productivity

Shop Steward is		
Above Average	About Same	Below Average

C.7 Why do you think steward(s) in your firm took the job?

- Ideology
- Interest of steward's job
- Boredom of own job
- Easy Time
- To cause trouble
- Ability
- Satisfaction of steward's job
- Other (pl.specify)

C.8 Most difficult part of steward's job?

- Dealing with management
- Dealing with members
- Mastering facts of situation
- None- an easy job

C.9 How satisfied are your men with their steward's performance?

Don't Know/V.Satisfied/O.K./V.dissatisfied

- Favourable
- Consults with men
- Forceful
- Reasonable

- Unfavourable
- Too militant
- Doesn't consult with men

APPENDIX 2

CODING FRAME

The frame indicates the option choices coded for each item on the interview schedules. The full coding frame consists of 153 columns, but in this appendix only part is presented as an illustration. The sheets selected from the full frame are those containing coding columns referred to in Appendix 4 for the construction of indices or in Appendix 5 for the construction of the measure of union involvement.

51. Factors which you think were favourable to steward in your firm in accepting steward's post

- | | |
|--|--|
| 1. D.K. | 10. To bring calm/sense to the site |
| 2. Ambition to get on in union e.g. become F.T.O. | 11. Dissatisfaction with performance of steward currently in post |
| 3. A lot of experience | 12. "Job has to be done" |
| 4. Personal ability/confidence/knowledge | 13. One of first men on the job |
| 5. Interest of steward's job - like to be involved (includes feeling of power) | 14. Desire to help men |
| 6. Boredom of job on tools | 15. "Think union is a good thing" |
| 7. Need of men for protection | 16. Poor working conditions, pay, etc. |
| 8. Low ability/interest of other men - "no-one else would have it" | 17. Personal gain - financial e.g. overtime; commission on collecting dues |
| 9. Good support from fellow workmen | 18. Personal gain - job security e.g. old, poor worker, etc. |
| | 19. For an easy time - too lazy or too little ability for manual work |

52. Factors which you think were unfavourable to steward in your firm in accepting steward's post

- | | |
|---|---|
| 1. D.K. | 10. A risky job - firms discriminate against stewards |
| 2. None mentioned | 11. Lose money through being a steward |
| 3. Lack of experience | 12. It is a very difficult job |
| 4. Lack ability/confidence/knowledge/right temperament | 13. A thankless job/Too much friction/Can't please both sides at once |
| 5. No interest in union affairs e.g. "its only a work ticket" | 14. No need for union e.g. "firm treats us well" |
| 6. Too interested in job on tools | 15. Too old |
| 7. Take up a lot of time | 16. Lack of support from union officials |
| 8. Poor support from men here | 17. No opportunity to take job e.g. "always travelling", "always a foreman" |
| 9. Other men better able to do job | |

53. Comments on performance of present steward from operatives viewpoint

- | | |
|-----------------------------------|---|
| 1. A good performance | 8. He lacks knowledge |
| 2. A moderate performance | 9. Insists too much on procedure - "rule bound" |
| 3. A poor performance | 10. 'Poor' attitude towards men - "doesn't care about them" |
| 4. He is militant | 11. D.K./not interested/not for me to comment |
| 5. He is reasonable/fair/moderate | |
| 6. He is weak | |
| 7. He is 'bent' | |

54. Branch Location

1. It is fairly conveniently accessible for attending meetings
2. It is only very inconveniently accessible for attending meetings
3. It is not accessible for attending meetings (e.g. travelling man whose branch is at home)
4. Don't know where my branch is located

60. Types of incidents on interviewee's mind

- | | |
|------------------------------------|---|
| 1. No incident at all | 17. Contested payment for some hours |
| 2. Incident only after prompting | 18. Behaviour of client |
| 3. Demarcation | 19. Behaviour of F.T.O. |
| 4. Hours of work/overtime | 20. Behaviour of operatives |
| 5. Bonus | 21. Sympathy strike for another group on site |
| 6. Level of manning | 22. Blacklisting in recruitment |
| 7. 'Unfair' dismissal | 23. Condition payments |
| 8. Intrinsic factor in own job | 24. Redundancy/Insecurity of employment |
| 9. Behaviour of supervisor | 25. Industrial action by some other group |
| 10. Behaviour of shop steward | 26. Timekeeping/absenteeism |
| 11. Inclement weather working | 27. Organization of the work |
| 12. Industrial action by his group | 28. Amenities/Facilities |
| 13. Token strikes | 29. Transport |
| 14. Behaviour of management | |
| 15. Safety &/or Accidents | |
| 16. Basic rate of pay | |

61. Attitude on Company's behaviour over timekeeping for operatives

1. Co. reasonable to operatives - give and take/leaves operatives on trust
2. Co. reasonable to operatives - fairly lenient/average
3. Co. reasonable to operatives - though strict
4. Co. reasonable to operatives - give fair warnings
5. Co. unreasonable to operatives - childish checking up (counter productive)
6. Co. unreasonable to operatives - very strict
7. Co.'s attitude doesn't concern me e.g. "I'm a good timekeeper", "Like to get in early for a cup of tea"

62. Actual and perceived position on 'first in - last out' in his company

1. Co. actually operate first in - last out on site without exceptions
2. Co. actually operate first in - last out on site as a general principle, but with exceptions
3. Co. don't operate first in - last out on site when reducing labour force
4. Co. generally try to transfer the bulk of their men to other sites
5. Interviewee says company operate first in - last out without exceptions
6. Interviewee says company operate first in - last out with exceptions
7. Interviewee says company don't operate first in - last out
8. Interviewee isn't sure of company position on first in - last out

63. Preferred system in the event of a redundancy

1. Use first in - last out without exception
2. First dismiss bad timekeepers, then use first in - last out
3. First dismiss out-of-town men, then use first in - last out
4. First dismiss poor workmen/lazy men, then use first in - last out
5. Let management decide entirely who is to be redundant
6. Use first in - first out
7. Use chance
8. First in - last out has disadvantages; it protects lazy/poor workmen, and lets good workmen go
9. Go along with first in - last out (but reservations/no strong feelings)
10. Any 'exceptional' cases e.g. bad timekeeping, should be dealt with before redundancy
11. (Cont.)

- | | |
|-----|--|
| 63. | <p><u>Preferred system in the event of a redundancy (cont.)</u></p> <ol style="list-style-type: none"> 11. The danger of management discrimination specifically mentioned 12. First ask for volunteers, then use first in - last out 13. Lay off those individuals whose own job has run down, and leave the others 14. First in - last out is unfair to the longest unemployed |
| 64. | <p><u>Actual and perceived source of recruitment and selection in his company</u></p> <ol style="list-style-type: none"> 1. The Co. actually recruits some of its labour centrally (at H.Q. or local office) and transfers men to site 2. Management actually restrict recruitment to sources suggested by stewards (e.g. local unemployed, men formerly employed here) 3. Management actually partly restricts source of recruitment to sources suggested by stewards 4. Management actually recruits from whatever sources it likes 5. Management actually take the advice of stewards over the employment of individuals 6. Management actually accepts men in some arbitrary order, and doesn't select among them 7. Management actually has no formal recruitment/selection system 8. Interviewee says management recruits exclusively from restricted source 9. Interviewee says management recruits partly from restricted source 10. Interviewee says management recruits from whatever source it likes 11. Interviewee says management take the advice of stewards over the employment of individuals 12. Interviewee says management accepts men in some arbitrary order, and doesn't select among them 13. Interviewee doesn't know the source of recruitment 14. Interviewee says the company transfers some men on to site from other Co. locations |
| 65. | <p><u>Opinion on exclusion of people from employment on Stanlow</u></p> <ol style="list-style-type: none"> 1. Exclude no-one with card for job - "everyone has to earn a living" 2. Exclude troublemakers 3. Exclude "scallys", "snides", "creeps" 4. Exclude poor workmen/lazy men/bad timekeepers 5. Exclude out-of-town men 6. Exclude ex-stewards 7. Men are often wrongly classed as troublemakers 8. Allow 'doubtful' men a probationary period 9. D.K. |
| 66. | <p><u>Do agitators exist?</u></p> <ol style="list-style-type: none"> 1. They do exist, but can only swing a site with a genuine grievance 2. They do exist, but can be contained by steward 3. They do exist, and can swing a site without a genuine grievance 4. Heard of them, but never personally come across one 5. Don't know if they exist 6. They don't exist |

<u>Col.</u>	<u>Coding Items</u>
67.	<p><u>Information volunteered on behaviour of Co. over blacklisting/vetting</u></p> <ol style="list-style-type: none"> 1. There are certain men who the Co. will not employ here i.e. there is a blacklist 2. Shall vet names of prospective starters 3. Co. H.Q./local office vet names of prospective starters 4. Sometimes Co. goes against Shell advice 5. Blacklisting does not take place here
68.	<p><u>Opinion on ideal source and method of recruitment/selection</u></p> <ol style="list-style-type: none"> 1. Let management decide (i.e. solely managerial prerogative) 2. Let management have final decision, after consultation with stewards 3. Let management have decision on part of labour force, and stewards/union on rest. Or Joint Decision 4. Let stewards/union decide 5. Have no selection, but take men in an arbitrary order e.g. longest out of work first 6. Need to avoid wrongful discrimination specifically mentioned 7. Give preference in recruitment to any local unemployed men 8. Give preference in recruitment to men who have worked here before and been made redundant 9. Give preference in recruitment to men on union out-of-work lists 10. Give preference in recruitment to men who have been longest out of work
69.	<p><u>Any issues operatives should be able to discuss with management and influence management over, but can't</u></p> <ol style="list-style-type: none"> 1. None - but said with no real thought of possible issues e.g. 'nothing comes to mind', 'not interested', 'nothing to do with me' 2. None - management here will discuss anything here e.g. recruitment 3. No specific issues, but there should be more exchange of information 4. Some e.g. contractual arrangements (costs) 5. Some e.g. recruitment 6. Some e.g. security of employment/ redundancy (names and pay) 7. Some e.g. organization of work, supervision (includes pre-fabrication off site) 8. Some e.g. condition money, bonus payments 9. Some interpretation of Agreement e.g. on 'lodge', travel 10. Don't know what management discuss with operatives (foremen aren't told what goes on in office)
70.	<p><u>Opinion on where real influence in I.R. lies on management side</u></p> <ol style="list-style-type: none"> 1. With Co. management on, or very local to, site 2. With Co. management off, and not in daily contact with, site 3. With main contractors management 4. With Shell 5. D.K.

76. Actual and perceived breakes of agreement by managements during interviewee's employment period with the Co.

1. Interviewee says management has broken agreement frequently
2. Interviewee says management has broken agreement occasionally
3. Interviewee says management has never broken agreement
4. Interviewee doesn't know
5. Management actually have broken the agreement on several occasions during interviewee's employment period
6. Management have actually made no major breakes of the agreement during interviewee's employment period

77. "A good worker is hardly ever out of a job"

1. Agree (with no rider)
2. Agree, if he's willing to travel, or take factory work
3. Disagree, because of blacking/discrimination/favouritism
4. Disagree, because of unemployment
5. Disagree, because management doesn't know who is any good
6. Disagree (with no rider)
7. Disagree, because of first in - last out
8. Disagree, because men are started in order from unemployed lists
9. D.K.

78. "It is impossible for management and men to work together as a team because they are really on opposite sides"

1. Agree, it is impossible
2. Agree it is impossible in the long term, but they can co-operate in the short term and on some issues
3. Disagree, they can work together and do have
4. Disagree, it is possible for them to work together (in the general case)
5. D.K.

79. "Most men in this Co. take a pride in their workmanship"

1. Well over half of men take pride	7. This area is a poor one for craftsmanship
2. Its about 50/50	8. Big Cos. don't recognize or reward individuals who work well - no incentive for men to try
3. Well under half of men take pride	9. Men have to take a pride - otherwise they would be sacked
4. Bonus particularly mentioned as a cause of poor workmanship	10. Quality of workmanship is up to management
5. Older/longer service employees take more pride than younger men	11. Pre-fabrication is taking away pride from the job
6. This area is a good one for craftsmanship	

80. "This company are ruthless employees"

1. Agree (no reason stated)	6. Disagree - although a few engineers ruthless in their treatment of men
2. Agree e.g. treatment of men by foremen	7. Disagree (no reason stated)
3. Agree e.g. treatment of foremen by Co.	8. The stewards/men won't allow the Co. to be ruthless
4. Agree e.g. treatment of stewards by Co.	9. D.K.
5. Agree e.g. Co. attempted to sack men on strike	

81. Opinion on token strikes
1. My Co. was not involved in token strikes
 2. Support cause, and think method effective
 3. Support cause, but think method ineffective - stronger action needed e.g. longer strikes, more people involved
 4. Support cause, but think method ineffective, instead of direct action perhaps donate money, etc. but don't strike
 5. Think tokens rubbish/a waste of time; not interested in extra-site issues
 6. No real opinion - follow the majority

82. Opinion on effectiveness of trying to spin the job out
1. It is done here, and it works
 2. It's impossible for a large group of men to spin out a job (even if one individual does, it has little effect)
 3. Men don't want to spin job out, because of bonus
 4. Men don't want to spin job out - rather get the job finished, take redundancy money, and go
 5. Men don't want to do it, gets them a bad name (and therefore makes it harder to get another job)
 6. Men don't want to do it - its against their own interests because the more efficient a company is, the more work the Co. gets
 7. Management won't allow men here to spin out a job (even though some men try it)
 8. D.K.

83. "All negotiations are biased in management's favour"
1. Agree - they always are
 2. Agree - because management better educated/informed
 3. Agree - because of circumstances existing now
 4. Agree generally, but not now; because job is behind and men have upper hand
 5. Its 50/50
 6. Disagree - unions/men have upper hand
 7. Can't generalize - depends on labour market, stage of job
 8. D.K.

84. "Management in this Co. are reasonably open and honest in their dealings with their workforce"
1. Agree
 2. Agree to stewards, but not to rank and file
 3. Disagree
 4. Disagree - no firms are/I'm suspicious of them all
 5. Issue mentioned - bonus
 6. Issue mentioned - security of employment
 7. Issue mentioned - condition money
 8. Issue mentioned - other e.g. profitability, walking time, finishing early
 9. D.K.

01.

Coding Items

85. "This Co. take a real interest in the welfare of their employees"

- | | |
|--------------------------------|--|
| 1. Agree | 8. e.g. Sick-pay |
| 2. Disagree | 9. e.g. Treatment of individual's problems |
| 3. Disagree - no firms do | 10. e.g. Security of employment, transfer |
| 4. e.g. Facilities - cabin | 11. e.g. Social facilities |
| 5. e.g. Clothing, boots, masks | 12. This Co. take an interest only when pushed |
| 6. e.g. Safety | 13. D.K. |
| 7. Pension scheme | |

86.

The objective 'welfare' situation in the Co.

1. There is a pension scheme for wages grades
2. There is no pension scheme for wages grades
3. There is a sick-pay scheme for wages grades
4. There is no sick-pay scheme for wages grades
5. The facilities e.g. cabins, are reasonable
6. The facilities e.g. cabins, are poor

87.

"Stewards in this Co. are reasonably open and honest in their dealings with management"

1. Agree
2. Disagree
3. D.K.

88.

Age of Interviewee

- | | |
|-------------|----------------|
| 1. Under 20 | 4. 36 - 50 |
| 2. 20 - 25 | 5. 51 - 64 |
| 3. 26 - 35 | 6. 65 and over |

89.

Dependents/Financial Responsibilities of Interviewee

1. Specifically mentions responsibilities
2. Specifically mentions lack of responsibilities
3. Normal, average commitments

90.

Social contacts with work colleagues out of working hours

1. Meet up with people regularly/frequently
2. Hardly ever meet up with people here - make a point of getting right away/avoiding them
3. Intermediate - meet up with people from time to time/amongst other friends

Coding Items

131.	<p><u>Perception of attitude of 'average' operative to union membership</u></p> <ol style="list-style-type: none"> 1. They think union is a good thing e.g. speaks for them, wins good facilities 2. They think union is unnecessary because firm treat them so well 3. They join the union only because they've got to 4. They support the union for the welfare benefits it provides
132.	<p><u>Supervisors perception of senior managements understanding of the labour force</u></p> <ol style="list-style-type: none"> 1. Understand it very well 2. Understand it fairly well 3. A fair understanding of it 4. A poor understanding of it 5. They initially had a very poor understanding of it
133.	<p><u>Backing senior management gives to supervisors</u></p> <ol style="list-style-type: none"> 1. Always back you up 2. Usually back you up 3. They quite often don't back you up 4. They never back you up 5. Don't back you up over issues e.g. timekeeping 6. Don't back you up if they think you've made wrong decision 7. Never arisen/Foremen don't take such decisions 8. I never make decisions before consulting with management
134.	<p><u>Supervisor's opinion on attention management pay to shop stewards</u></p> <ol style="list-style-type: none"> 1. Too much - they pander too much to stewards 2. About right - they keep stewards in their place i.e. don't let them have too much influence 3. Management pay a lot of attention to the stewards, and this is necessary for the good of the job 4. About right (with no extra comment) 5. Too little - they should talk more to their stewards, e.g. have more meetings 6. Management should pay more attention to their foremen than they do; and tell us what is going on
135.	<p><u>Interviewee's career ambitions</u></p> <ol style="list-style-type: none"> 1. Rise up managerial hierarchy 2. Join staff (if not already a member) 3. Stay at same level as now 4. Go back down hierarchy 5. No real preferences; easy what he does 6. No opportunities for promotion e.g. too old; no craft training, etc.

136. Member of supervisory section of union?
1. Union has no supervisory section
 2. I'm a member of supervisory section
 3. I'm not a member of supervisory section on principle
 4. I'm not a member of supervisory section because I've never bothered changing
 5. I'm not a member of supervisory section, even if union has one
 6. N/A - I'm not a union member

137. Reasons for union membership/non-membership
1. It is really more or less 'compulsory' for me to be a union member to hold my present job on this site
 2. It is a personal decision whether or not I choose to be a union member on this site
 3. I keep my union membership for if I go back down onto the tools
 4. I keep my union membership for the welfare benefits
 5. I keep my union membership so that I am able to work as a supervisor on any site
 6. I keep my union membership to avoid trouble on this site
 7. I keep my union membership because I really believe in unions
 8. I resigned my union membership when I became a supervisor
 9. I resigned my union membership when I joined the staff
 10. I resigned my union membership because I found union to be ineffective

138. Supervisors evaluation of company attitude to timekeeping
1. Agree with co. treat men well and they'll repay
 2. Agree with Co. - you've got to be tough with these men
 3. Disagree with co. - if they were laxer with men, then men would repay
 4. Disagree with Co. - they should be tougher with men e.g. keep them on job, dock pay, give warnings
 5. Just go along with the co.

139. Issues which stewards raise which are "none of their business"
1. None. They do not raise any issues which I consider illegitimate (implied 'I do consider some issues none of their business')
 2. None. I consider that they should be allowed to raise anything at all
 3. Some issues e.g. selection of labour
 4. Some issues e.g. dismissal
 5. Some issues e.g. organisation of work (includes 'demarcation', levels of manning/and releasing work)
 6. Some issues e.g. financial arrangements on contract, and progress of contract in financial terms
 7. Some issues e.g. behaviour of supervisors
 8. Men are not sufficiently interested to raise any 'broader' issues anyway
 9. Don't know what issues they raise with management, we aren't told
 10. They do not raise any points at all with F/m

01.

Coding Items

140. • Consequences of Shell's influence over company's I.R.

1. N/A - Shell has no influence/little influence
2. Shell influence helpful - they are smart operators; advise us well, know C and P for site
3. Shell influence helpful - they are tough, will back us up
4. Shell influence is unhelpful - they are too weak, pay up too easily, and therefore we lose control of our labour
5. Shell influence unhelpful - they are too rigid; if we could bend we could keep better I.R.
6. No consequences stated

141. • Opinion of supervisor on management's treatment of the operatives

1. Management of this company give in too easily
2. Management of this company strike right balance over concessions
3. Management of this company do not make concessions easily enough
4. Management make concessions only after pressure from men
5. Management lenient over men breaking disciplinary rules e.g. drinking in pub
6. Management flexible to placate operatives e.g. "fiddle" bonus, short cut on "safety"

149. Manager's reasons why supervisors should NOT have more responsibility in the employment field
1. N/A - wants/should have more responsibility
 2. The worry of having to take decisions
 3. Don't want to offend men. It causes antagonism with the men working here - they take it wrong
 4. Lack of knowledge of broader implications
 5. Lack of expertise/knowledge/training
 6. Show favouritism to some men
 7. Good decisions are taken now
 8. No reasons stated
 9. Lack of ability
 10. Has a considerable amount of responsibility already
 11. Lack a general loyalty to the company

150. Manager's rating of loyalty and effectiveness of supervisors
1. Loyalty to company fairly low (because up and down from tools/ no security)
 2. Loyalty to company fairly high
 3. Supervisors fairly effective in getting men to work well
 4. Supervisors fairly ineffective in getting men to work well (e.g. won't carry through unpopular decisions; either too lax or too harsh in approach to men)

151. Source and treatment of first line supervisor in company
1. Most recruited on this site as craftsmen, and promoted to supervisor
 2. Most recruited on this site directly as supervisors
 3. Most transferred in from other sites of this company, as supervisors
 4. Most given 'permanent' staff status
 5. Most are hourly paid
 6. Most given chance to transfer to 'permanent' staff status, but have turned it down
 7. Most have a fair expectation of many years employment with this company as supervisor (e.g. transfer, or term contractor)
 8. Most have not a fair expectation of other than short term employment as a supervisor with this company/e.g. no transfer with short item companies

152. Manager's attitudes towards stewards in his company
1. Listen to them a lot - this is necessary for good I.R.
 2. Keep them in their place e.g. don't let them come running in every 5 minutes
 3. Steward is irresponsible
 4. Steward is responsible
 5. Steward is immature
 6. Steward is mature

153. Manager's first job in this industry
- | | |
|-----------------|--|
| 1. Craftsman | 6. First level supervisor |
| 2. Semi-skilled | 7. 2nd level supervisor/technical/office |
| 3. Labourer | 8. Line Manager (i.e. site boss) |
| 4. Apprentice | 9. Personnel Specialist |
| 5. Chargehand | |

EDITING THE CODED INTERVIEW DATA1. By Role within Trade Group

The sample within each sub-group (comprising respondents in one role and trade group) was treated as a simple random sample from a finite population. The standard error of the proportion for each option on every item was calculated using the formula:

$$\text{s.e.}(p_{\text{SRS}}) = \sqrt{\left(\frac{1-n}{N}\right) \frac{p(1-p)}{n-1}}$$

Where: $\text{s.e.}(p_{\text{SRS}})$ = Standard error of the proportion (simple random sample)

n = Sample size

N = Population size

p = Proportion of the sample giving the option.

For a 95% level of significance, the maximum permissible value of the coefficient of variation was taken as:

$$\frac{\text{s.e.}(p)}{p} \times 100 = 50\%$$

Thus where $p < 2\text{s.e.}(p)$, and responses were not merged with other options to give $p_1 \geq 2\text{s.e.}(p_1)$, the proportion of the sample giving the option is presented in the tables in this thesis as \neq . This sign may be interpreted as showing that a small proportion of respondents fall into this category, but the number is too small to permit presentation of an actual figure which can, within the limits of accuracy set, be generalized to the population.

2. By Role Overall

The sample within each role was treated as a stratified random sample from a finite population, the strata being the trade groups. The

standard error of the proportion was calculating using the formula:

$$s.e.(p_{st}) = \sqrt{\frac{1}{N^2} \sum N_i^2 s.e.(p_i \text{ sRS})^2}$$

Where: $s.e.(p_{st})$ = Standard error of the proportion (stratified sample)

N = Population size of role

N_i = Population size of role within i^{th} trade group

p_i = Proportion of the sample in the i^{th} trade group giving the option

The editing cut-off point and the meaning of f are as described for editing by role within trade group

APPENDIX 4

CONSTRUCTION OF INDICES

Index of Operatives', Shop Stewards', Supervisors' and Managers' Perceptions of the Fairness of their Current Company towards its Manual Employees

Coding column number	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
61	5,6	3,7 ⁽²⁾	1,2,4
80	1,2,3,4,5	8 ⁽²⁾ ,9	6,7
84	3,4	2,9	1
85	2,3	12 ⁽²⁾ ,13	1

Dichotomy: Fair employer - index score < 8

Unfair employer - index score ≥ 8

Index of Operatives', Shop Stewards', Supervisors' and Managers' Perceptions of the Fairness of the Existing General Industrial Relations System

Coding column number	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
77	3,4,5,6	2,9	1,7 ⁽²⁾ ,8 ⁽²⁾
83	1,2	3,4,5,7,8	6

Dichotomy: Fair general industrial relations system - index score < 5

Unfair general industrial relations system - index score ≥ 5

Index of Operatives', Supervisors' and Managers' Attitudes
Towards the Shop Stewards in their Current Company

Coding column number	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
51	All others	1,6,8,13	17,18,19
53	1	2,11	3
87	1	3	2

Dichotomy: Favourable Opinions - index score ≥ 7

Unfavourable Opinions - index score < 7

Index of Supervisors' Satisfaction with Management's Handling of
the Manual Employees

Coding column number	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
132	1,2	3	4
133	1,2 ⁽²⁾	6 ⁽²⁾ , 7,8	3,4,5
134	2,3,4	-	1,5,6
138	1,2	5	3,4
141	2	4 ⁽²⁾	1,3

Dichotomy: Satisfied - index score ≥ 11

Dissatisfied - index score < 11

Index of Managers' Evaluations of their Supervisors

Coding column number	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
149	1	2 ⁽²⁾ , 4 ⁽²⁾ , 7,10	3,5,6,9,11
150 ⁽³⁾	Both 2 & 3	Either 2 or 3	Neither 2 nor 3

Dichotomy: Satisfied - index score ≥ 4

Dissatisfied - index score < 4

Index of Operatives', Shop Stewards', Supervisors' and Managers'
Favoured Amount of Union Involvement

Coding column numbers	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
63	1,6,12	2,3,4,7,9,13	5
68	3,4,5	2	1
69	4,5,6,7,8,9	2,3	1,10

Dichotomy: High union involvement - index score ≥ 7

Low union involvement - index score < 7

General Notes:

- (1) No extra points are scored for the selection of more than one option in any column
- (2) This option is scored only if it occurs alone
- (3) Ignore options 1 and 4 in this column

APPENDIX 5

MEASURE OF THE EXISTING AMOUNT OF UNION INVOLVEMENT
IN EACH FIRM

A measure was designed to reflect the two dimensions of union involvement - scope and depth (cf. Chalmers et al, 1954b, pp.139-97; Derber et al, 1961). The scope considered the two key areas of recruitment/selection and redundancy. The depth considered the authorship of the rules in these areas.

Coding column number	Option numbers scoring ⁽¹⁾		
	3 points	2 points	1 point
62	1	2	3
64	2,6	3,5	4,7

Trichotomy: High union involvement - score > 4
Medium union involvement - score $= 4$
Low union involvement - score < 4

Notes: (1) No extra points are scored for the selection of more than one option in any column

NONPARAMETRIC STATISTICAL TESTS USED

The three nonparametric statistical tests outlined below were used for testing differences between samples on measures and in testing the hypothesised bivariate relationships. The selection of the appropriate test for each case was influenced by sample size, expected frequencies, and whether it was wished to examine order effects.

1. Chi-Squared Test for k independent samples

(Reference: Siegel, 1956, pp.104-11, 175-9)

$$X^2 = \sum_{i=1}^r \sum_{j=1}^k \frac{(O_{ij} - E_{ij})^2}{E_{ij}} ; \quad df = (r-1)(k-1)$$

Where: O_{ij} = observed number of cases categorized in i^{th} row of j^{th} column

E_{ij} = number of cases expected under null hypothesis to be categorized in i^{th} row of j^{th} column

df = degrees of freedom

r = number of rows

k = number of columns

The test was used:

- for $df > 1$, when fewer than 20% of cells have expected frequency of less than 5 and no cell has an expected frequency of less than one. NB for $df > 1$, X^2 is insensitive to order effects.
- for $df = 1$, when N (total number of cases) > 40 , or when $20 \leq N < 40$ if all expected frequencies are 5 or more.

2. Fisher Exact Probability Test for 2 independent samples

(Reference: Siegel, 1956, pp.96-100)

$$p = \frac{(A+B)!(C+D)!(A+C)!(B+D)!}{N!A!B!C!D}$$

Where: A,B,C,D are frequencies in 2x2 contingency table

$$N = A+B+C+D$$

The test was used where $N < 20$, or when $20 \leq N < 40$ and the smallest expected frequency is less than 5.

3. Kolmogorov-Smirnov Test for 2 independent samples

(Reference: Kraft and van Eeden, 1968, pp.172-3, 315-22;
Siegel, 1956, pp.127-36)

For a 2-tailed test, $D = \max | S_{n1}(X) - S_{n2}(X) |$

Where: D = maximum deviation

$S_{n1}(X)$ = observed cumulative step function of one of the samples

$S_{n2}(X)$ = observed cumulative step function of the other sample

When: $n_1 = n_2 < 40$, used Table N in Kraft and van Eeden

$n_1 \neq n_2$, and either < 40 , used Table O in Kraft and van Eeden

$n_1 \neq n_2$, and both > 40 , used Table M in Siegel

The test is sensitive to order effects.

APPENDIX 7

TYPAL ANALYSIS TECHNIQUE

The aim is to group together individuals within roles sharing a range of common attitudes, and firms within trade groups sharing a range of common behaviours and amount of union involvement in rule making. The distinguishing characteristics of types in terms of the biographical characteristics of individuals and aspects of their current work situation, and in terms of the structural and attitudinal characteristics of firms can then be identified.

Arrays were made up of the profiles of individuals within roles on each of n_1 dichotomised attitudes. Thus, for each role, 2^{n_1} different profiles were theoretically possible. The profiles actually occurring were identified. Similarly arrays of firms within trade groups on each of n_2 trichotomised behaviour measures were made up, and the profiles actually occurring were identified.

For each sub-group of individuals within roles and firms within trade groups, the most commonly occurring profile was selected as a starting point. All other profiles within the sub-group sharing any $(n-1)$ characteristics in common with this profile were identified. These profiles were grouped, the modal characteristics noted, the number of cases occurring counted, and were removed from the array. The most common remaining profile from the original array was then selected and the exercise repeated. This process was continued until all the original profiles had been grouped, counted and removed.

Using the set of profiles derived from the above procedure, the most commonly occurring profile was identified and all the others scanned for those sharing any (n-2) characteristics in common with it. These were grouped, the modal characteristics noted, the number of cases occurring counted, and were removed from the array. The exercise was repeated, taking in each case the most common remaining profile as the starting point.

The whole method was continued up to the level of profiles sharing (n-m) characteristics in common, where m is the number where the great majority of profiles were clustered in a single category. The stage preceding this was the one chosen for the identification of the modal characteristics of each remaining profile as a type.

The modal biographical characteristics of the types of individuals, and the modal attitudinal and structural characteristics and amount of union involvement of the types of firms were then found. An arbitrary figure of 15% difference in the distribution of any of these variables was defined as the minimum to distinguish any differences between types.

REFERENCES

- ADAMSON H (1972) "General Site Services Ltd", Industrial Society, February.
- ALLEN V L (1954) "Power in Trade Unions", Longman
- ALLEN V L (1971) "The Sociology of Industrial Relations", Longman.
- ANTHONY P & CRICHTON A (1969) "Industrial Relations and the Personnel Specialists", Batsford
- BAIN G S, COATES D & ELLIS V (1973) "Social Stratification and Trade Unionism", Heinemann Educational Books.
- BAIN G S, & CLEGG H A (1974) "A Strategy for Industrial Relations Research in Great Britain", British Journal of Industrial Relations, 12(1).
- BALDAMUS W (1961) "Efficiency and Effort", Tavistock.
- BARBASH J (1964) "The Elements of Industrial Relations", British Journal of Industrial Relations, 2(1),
- BEHREND H (1963) "The Field of Industrial Relations", British Journal of Industrial Relations, 1(3).
- BERGEN H (1940) "Management Prerogatives", Harvard Business Review, 18(2).
- BERNSTEIN B (1958) "Some Sociological Determinants of Perceptions: An enquiry into sub-cultural differences", British Journal of Sociology, 9(2).
- BERNSTEIN B (1962) "Linguistic Codes, Hesitation Phenomena and Intelligence", Language and Speech, 5.
- BERNSTEIN B (1964) "Social Class, Speech Systems and Psychotherapy", British Journal of Sociology, 15(1).
- BERRY A P (1963) "Survey of Labour Relations at Llanwern" Engineering Employers' Association, Bristol.
- BEYNON H (1973) "Working for Ford", Allen Lane.
- BEYNON H & BLACKBURN R M (1972) "Perceptions of Work: Variations within a factory", Cambridge University Press.

- BLAIN A N J (1972) "Pilots and Management: Industrial Relations in the UK Airlines", Allen & Unwin.
- BLAIN A N J & GENNARD J (1970) "Industrial Relations Theory - A critical review", British Journal of Industrial Relations, 8(3).
- BLALOCK H M (ed) (1972) "Causal Models in the Social Sciences", Macmillan.
- BLAUNER R (1964) "Alienation and Freedom: The factory worker and his industry", University of Chicago Press.
- BORASTON I, CLEGG H A & RIMMER M (1975) "Workplace and Union: A study of local relationships in fourteen unions", Heinemann Educational Books.
- BROWN R K & BRANNEN P (1970) "Social Relations and Social Perspectives amongst Shipbuilding Workers - a preliminary statement", Parts 1 and 2, Sociology, 4(1 & 2).
- BROWN R K, BRANNEN P, COUSINS J M & SAMPHIER M L (1972) "The Contours of Solidarity: Social Stratification and Industrial Relations in Shipbuilding", British Journal of Industrial Relations, 10(1).
- BROWN W (1972) "A Consideration of 'Custom and Practice'", British Journal of Industrial Relations, 10(1).
- BROWN W (1973) "Piecework Bargaining", Heinemann Educational Books.
- BURNS T & STALKER G M (1966) "The Management of Innovation", Tavistock.
- CAMERON REPORT (1967) "Report of a Court of Inquiry into trade disputes at the Barbican and Horseferry Road construction sites in London", Cmnd. 3396, HMSO.
- CAMERON G C (1964) "Post-War Strikes in the North-East Ship-Building and Ship Repairing Industry, 1946-61", British Journal of Industrial Relations, 2(1).
- CASEY W P (1973) "Hay Point - A Delegate's View: Some problems of site industrial relations", Journal of Industrial Relations, June.

- CHALMERS W E, CHANDLER M K, McQUITTY L L, STAGNER R, WRAY D E & DERBER M (1953/4a & b) "Labor-Management Relations in Illini City", Vols 1 and 2, University of Illinois Press.
- CHAMBERLAIN N W (1948) "The Union Challenge to Management Control", Harper and Row.
- CHAMBERLAIN N W (1963) "The Union Challenge to Management Control", Industrial and Labor Relations Review, 16.
- CHANDLER M K (1964) "Management Rights and Union Interests", McGraw-Hill.
- CIR REPORT NO.17 (1971) "Facilities Afforded to Shop Stewards", Cmnd.4668, HMSO.
- CIR REPORT NO.29 (1972) "Alcan Smelter Site", HMSO
- CLACK G (1967) "Industrial Relations in a British Car Factory", Cambridge University Press.
- CLARKE R O, FATCETT D J & ROBERTS B C (1972) "Workers' Participation in Management in Britain", Heinemann Educational Books.
- CLEGG H A (1960) "A New Approach to Industrial Democracy", Blackwell.
- CLEGG H A (1972) "The System of Industrial Relations in Great Britain", Blackwell.
- CLEGG H A, KILLICK A J & ADAMS R (1961) "Trade Union Officers", Blackwell.
- CLELAND S (1955) "The Influence of Plant Size on Industrial Relations", Princeton University Press.
- COTGROVE S & VAMPLEW C (1972) "Technology, Class and Politics: The case of process workers", Sociology, 6(2).
- COX R W (1971) "Approaches to a Tutorology of Industrial Relations", International Institute of Labor Studies, Bulletin 8.
- CRAIG A W J (1973) "A Framework for the Analysis of Industrial Relations Systems", Paper to 3rd World Congress of International Industrial Relations Association.
- DAHRENDORF R (1959) "Class and Class Conflict in an Industrial Society", Routledge and Kegan Paul.

- DANIEL W W (1970) "Beyond the Wage Work Bargain", Political and Economic Planning.
- DAVIS N M (1948) "Attitudes to Work: A field study of building operatives", British Journal of Psychology, 38(3).
- De GROOT A D (1969) "Methodology: Foundations of inference and research in the behavioural sciences", Mouton.
- DERBER M, CHALMERS W E & STAGNER R (1957) "Uniformities and Differences in Local Union-Management Relationships", Industrial and Labor Relations Review, 11(1).
- DERBER M, CHALMERS W E & STAGNER R (1960) "The Local Union-Management Relationship", University of Illinois Press.
- DERBER M, CHALMERS W E & EDELMAN M T (1961) "Union Participation in Plant Decision Making", Industrial and Labor Relations Review, 15(1).
- DERBER M (1965) "A Small Community's Impact on Labor Relations", Industrial Relations, 4(2).
- DEUTSCHER I (1966) "Words and Deeds: Social science and social policy", Social Problems, 13(3).
- DUBIN R (1960) "A Theory of Conflict and Power in Union-Management Relations", Industrial and Labor Relations Review, 13(4).
- DUBIN R (1973) "Attachment to Work and Union Militancy", Industrial Relations, 12(1).
- DUNLOP J T (1961) "The Industrial Relations System in Construction" in Weber A R (ed) "The Structure of Collective Bargaining", Free Press of Glencoe.
- DUNLOP J T (1970) "Industrial Relations Systems", Southern Illinois University Press.
- ECCLES A (1972) "The Hunt for Homo Obstreperans", Personnel Review, 1(2).
- EISELE C F (1970) "Plant Size and Frequency of Strikes", Labor Law Journal, 21 (December).
- ELDRIDGE J E T (1968) "Industrial Disputes", Routledge and Kegan Paul.
- EVERITT B (1974) "Cluster Analysis", Heinemann.

- FATCHETT D & WHITTINGHAM W M (1976) "Trends and Developments in Industrial Relations Theory", Industrial Relations Journal, 7(1).
- FESTINGER L (1957) "A Theory of Cognitive Dissonance", Stanford University Press.
- FLANDERS A (1964) "The Fawley Productivity Agreements", Faber and Faber.
- FLANDERS A (1970) "Management and Unions", Faber and Faber.
- FOSTER M (1971) "An Introduction to the Theory and Practice of Action Research in Work Organisations", Human Relations, 25(6).
- FOX A (1966) "Industrial Sociology and Industrial Relations", Research Papers 3, Royal Commission on Trade Unions and Employers' Associations, HMSO.
- FOX A (1971) "A Sociology of Work in Industry", Collier-Macmillan.
- FOX A (1973) "Industrial Relations: A Social Critique of Pluralist Ideology" in Child J (ed) "Man and Organization", Allen and Unwin.
- FOX A (1974) "Man Mismanagement", Hutchinson.
- FRYER J (1974) "Stay at home miners hit pits", Sunday Times Business News, 10th November.
- GEORGE K D, McNABB R & SHOREY J (1977) "The Size of the Work Unit and Labour Market Behaviour", British Journal of Industrial Relations, 15(2).
- GILL H S (1969) "One Approach to the Teaching of Industrial Relations", British Journal of Industrial Relations, 7(2).
- GILL H S (1975) "Action Research - A critical examination of its use in organisational improvement", Industrial and Commercial Training, 7(7).
- GOLDTHORPE J H (1966) "Attitudes and Behaviour of Car Assembly Workers", British Journal of Sociology, 18(September).
- GOLDTHORPE J H & LOCKWOOD D (1963) "Affluence and the British Class Structure", The Sociological Review, 11(2).
- GOLDTHORPE J H, LOCKWOOD D, BECKHOFFER F & PLATT J L (1968) "The Affluent Worker: Industrial Attitudes and Behaviour", Cambridge University Press.

- GOODMAN J F B, ARMSTRONG
E G A, WAGNER A, DAVIS J E
& WOOD S J (1975) "Rules in Industrial Relations Theory:
A discussion", Industrial Relations
Journal, 6(1).
- GOODMAN J F B & WHITTINGHAM
T G (1969) "Shop Stewards in British Industry",
McGraw-Hill.
- GOULDNER A W (1954) "Wildcat Strike: A Study in Worker-
Management Relationships", Harper & Row.
- GRAY A P & ABRAMS M (1954) "Construction of Esso Refinery, Fawley",
British Institute of Management.
- HABER W & LEVINSON H M (1956) "Labor Relations and Productivity in the
Building Trades", University of Michigan
Press.
- HAGEN E E (1965) "Some Implications of Personality Theory
for the Theory of Industrial Relations",
Industrial and Labor Relations Review,
18(3).
- HAMEED S M A (1967) "Theory and Research in the Field of
Industrial Relations", British Journal
of Industrial Relations, 5(2).
- HARTMANN H (1973) "Structure and Process in Industrial
Relations", Paper to 3rd World Congress
of International Industrial Relations
Association.
- HAVELOCK R G (1969) "Planning for Innovation through
Dissemination and Utilisation of
Knowledge", University of Michigan.
- HENEMANN H G (1969) "Towards a General Conceptual System of
Industrial Relations: How do we get there?"
in Somers G C (ed) "Essays in Industrial
Relations Theory", Iowa State University
Press.
- HILGENDORF L, CLARK A W &
IRVING B L (1970) "The Combined Use of Linkage and Path
Analysis in the Development of Causal
Models", Human Relations, 20(4).
- HILTON W S (1968) "Industrial Relations in Construction",
Pergamon.
- HOWELLS J M & BROSINAN P
(1972) "The Ability to Predict Workers' Preferences:
A Research Exercise", Human Relations, 25(3).
- HYMAN R (1971) "The Workers' Union", Oxford University
Press.

- HYMAN R (1972a) "Disputes Procedure in Action", Heinemann Educational Books
- HYMAN R (1972b) "Strikes", Fontana/Collins
- HYMAN R (1975) "Industrial Relations: A Marxist Introduction", Macmillan
- HYMAN R, & BROUGH I (1975) "Social Values and Industrial Relations", Blackwell
- INDIK B P (1963) "Some Effects of Organizational Size on Member Attitudes and Behaviour", Human Relations, 16(3)
- INDIK B P (1965) "Organization Size and Member Participation: Some Empirical Tests of Alternative Explanations", Human Relations, 18(4).
- INGHAM G K (1967) "Organizational Size, Orientation to Work and Industrial Behaviour", Sociology, 1(3)
- INGHAM G K (1970) "Size of Industrial Organization and Worker Behaviour", Cambridge University Press
- JAQUES E (1951) "The Changing Culture of a Factory", Tavistock
- JONES R M (1971) "Absenteeism", Manpower Papers No.4, Department of Employment, HMSO
- KERR C & SIEGEL A (1954) "The Inter-Industry Propensity to Strike - An International Comparison" in Kornhauser, A et al, "Industrial Conflict", McGraw-Hill
- KNOWLES K G J C (1952) "Strikes: A Study in Industrial Conflict", Oxford University Press
- KNOWLES K G J C (1960) "Strike Proneness and its Determinants" in Galenson W et al (ed), "Labor and Trade Unionism", Wiley
- KORNHAUSER A, DUBIN R & ROSS A (eds) (1954) "Industrial Conflict", McGraw-Hill
- KRAFT C H & Van EEDEN C (1968) "A Non-Parametric Introduction to Statistics", MacMillan
- KUHN J (1961) "Bargaining in Grievance Settlement", Columbia University Press
- LAFFER K (1974) "Is Industrial Relations an Academic Discipline?", Journal of Industrial Relations, 16(1)

- LIDDELL F D K (1954) "Attendance in the Coal-Mining Industry", British Journal of Sociology, 5(1).
- LIEBERMAN S (1956) "The Effects of Change in Roles on the Attitudes of Role Occupants", Human Relations, 9(4).
- LIPSET S M, TROW M A & COLEMAN J S (1956) "Union Democracy", Collier-MacMillan.
- LIVERPOOL UNIVERSITY (1954) "The Dockworker: An Analysis of Conditions of Employment in the Port of Manchester", Liverpool University Press.
- LOCKWOOD D (1955) "Arbitration and Industrial Conflict", British Journal of Sociology, 6(4).
- LUPTON T (1963) "On the Shop Floor", Pergamon.
- MCCARTHY W E J (1966) "The Role of Shop Stewards in British Industrial Relations", Research Papers 1, Royal Commission on Trade Unions and Employers' Associations, HMSO.
- MCCARTHY W E J & ELLIS N D (1973) "Management by Agreement: An alternative to the Industrial Relations Act", Hutchinson.
- MCCARTHY W E J & PARKER S R (1968) "Shop Stewards and Workshop Relations", Research Papers 10, Royal Commission on Trade Unions and Employers' Associations, HMSO.
- MCQUITTY L L (1960) "Hierarchical Syndrome Analysis", Educational and Psychological Measurement, 20(2).
- MAPES R (1970) "Dependence Analysis", Sociology, 4(3).
- MARGERISON C J (1969) "What do we mean by Industrial Relations: A Behavioural Science Approach", British Journal of Industrial Relations, 7(2).
- MARSH A I, EVANS E O & GARCIA P (1971) "Workplace Industrial Relations in Engineering", Kegan Paul.
- MARSH A I & MCCARTHY W E J (1968) "Disputes Procedures in Britain: Part 2", Research Papers 2(2), Royal Commission on Trade Unions and Employers' Associations, HMSO.
- MELLISH M (1972) "The Docks After Devlin", Heinemann Educational Books.

- MILLS D Q (1971) "Wage Determination in Contract Construction", Industrial Relations, 10(1).
- MUNSON F C (1963) "Labor Relations in the Lithographic Industry", Harvard University Press.
- MYERS R R (1946) "Inter-Personal Relations in the Building Industry", Applied Anthropology, 5(2).
- NEDO (1969) "Large Industrial Construction Sites: Motivation Study", NEDO.
- NEDO (1970a) "Large Industrial Sites - Report of the Working Party", HMSO
- NEDO (1970b) "Survey Among Contractors: Technical Report and Tables", NEDO Statistics Section.
- NEDO (1971) "The Training and Development of Field Managers in Engineering Construction", NEDO.
- NEDO (1976) "Engineering Construction Performance", NEDO.
- PARKER S R (1973) "Research into Workplace Industrial Relations: Progress and Prospects", in Warner M (ed) "The Sociology of the Workplace", Allen and Unwin.
- PARKER S R (1974) "Workplace Industrial Relations 1972", HMSO.
- PARKER S R & SCOTT M H (1971) "Developing Models of Workplace Industrial Relations", British Journal of Industrial Relations, 9(2).
- PEDLER M J (1973) "Shop Stewards as Leaders", Industrial Relations Journal, 4(4).
- PERLINE M M (1971) "Organized Labour and Managerial Prerogatives", California Management Review, Winter.
- PHELPS BROWN E H (1968) "Report of the Committee of Enquiry into Certain Matters Concerning Labour in Building and Civil Engineering", Cmnd. 3714, HMSO.
- PIB REPORT NO.91 (1968) "Pay and Conditions in the Civil Engineering Industry", Cmnd.3836, HMSO.

- PIB REPORT NO.92 (1968) "Pay and Conditions in the Building Industry", Cmnd.3837, HMSO.
- PIB REPORT NO.120 (1969) "Pay and Conditions in the Electrical Contracting Industry", Cmnd.4097, HMSO.
- POOLE M (1974) "Towards a Sociology of Shop Stewards", The Sociological Review, 22(1).
- POOLE M (1975) "Workers' Participation in Industry", Routledge and Kegan Paul.
- POOLE M (1976) "A Power Analysis of Workplace Labour Relations", Industrial Relations Journal, 7(3).
- PORTER L W, LAWLER E E & HACKMAN J R (1975) "Behaviour in Organizations", McGraw-Hill.
- PRASOW P & PETERS E (1967) "New Perspectives on Management's Reserved Rights", Labor Law Journal, 18(1).
- RAPOPORT R N (1970) "The Dilemmas in Action Research", Human Relations, 23(6).
- REES A (1954) "Industrial Conflict and Business Fluctuations", in Kornhauser A et al (ed) "Industrial Conflict", McGraw-Hill.
- REEVES T K (1967) "Constrained and Facilitated Behaviour - A Typology of Behaviour in Economic Organizations", British Journal of Industrial Relations, 5(2).
- ROBERTS B C (1956) "Trade Union Government and Administration in Great Britain", Bell.
- ROSEN H & ROSEN R A H (1955) "The Union Member Speaks", Prentice-Hall.
- ROSS P (1972) "Origin of the Hiring Hall in Construction", Industrial Relations, 11(3).
- SAMUEL P J (1969) "Labour Turnover? Towards a Solution", Institute of Personnel Management.
- SAYLES L (1958) "Behaviour of Industrial Work Groups", Wiley.
- SAYLES L & STRAUSS G (1967) "The Local Union", Harcourt, Brace and World.
- SCOTT W H, MUMFORD E, McGIVERING I C & KIRKBY J M (1963) "Coal and Conflict: A Study of Industrial Relations at Collieries", Liverpool University Press.

- SEIDMAN J (1965) "Community Influences on Industrial Relations", Industrial Relations, 4(2).
- SEIDMAN J, LONDON J, KARSH B & TAGLIACOZZO D L (1958) "The Worker Views his Union", University of Chicago Press.
- SELZNICK P & VOLLMER H (1962) "Rule of Law in Industry: Seniority Rights", Industrial Relations, 1(3).
- SHENFIELD B (1968) "Security of Employment: A Study in the Construction Industry", Political and Economic Planning.
- SHIMMIN S (1962) "Extra-Mural Factors Influencing Behaviour at Work", Occupational Psychology, 36(3).
- SHIMMIN S & SINGH R (1973) "Industrial Relations and Organizational Behaviour: A Critical Appraisal", Industrial Relations Journal, 4(3).
- SIEGEL S (1956) "Nonparametric Statistics for the Behavioral Sciences", McGraw-Hill.
- SILVER M (1973) "Recent British Strike Trends: A Factual Analysis", British Journal of Industrial Relations, 11(1).
- SILVERMAN D (1970) "The Theory of Organization", Heinemann.
- SINGH R (1976) "Systems Theory in the Study of Industrial Relations: Time for a Reappraisal?", Industrial Relations Journal, 7(3).
- SOMERS G (ed) (1969) "Essays in Industrial Relations Theory", Iowa State University Press.
- STRAND K T (1959) "Jurisdictional Disputes Among the Building Trades Unions", PhD Thesis (unpublished), University of Wisconsin.
- STRAUSS G (1956) "Control by the Membership in Building Trades Unions", American Journal of Sociology, 61(6).
- STRAUSS G (1958) "Unions in the Building Trades", University of Buffalo Studies, 24(2).
- SYKES A J M (1964) "A Study in Changing the Attitudes and Stereotypes of Industrial Workers", Human Relations, 17(2).
- SYKES A J M (1965a) "Some Differences in the Attitudes of Clerical and Manual Workers", The Sociological Review, 13(3).

- SYKES A J M (1965b) "Myth and Attitude Change", Human Relations, 18(4).
- SYKES A J M (1969a) "Navvies: Their Work Attitude", Sociology, 3(1).
- SYKES A J M (1969b) "Navvies: Their Social Relations", Sociology, 3(2).
- TALACCHI S (1960) "Organization Size, Individual Attitudes and Behaviour: An Empirical Study", Administrative Science Quarterly, 5(3).
- TANNENBAUM A S & KAHN R L (1958) "Participation in Union Locals", Row, Peterson.
- THOMAS G (1968) "Operatives in the Building Industry", Government Social Survey, HMSO.
- THURLEY K E (1972) "Review of Wearne (1970 and 1972)", in British Journal of Industrial Relations, 10(3).
- TOPLISS J W (1970) "Studying People at Work: Outline of a System", Occupational Psychology, 44.
- TUC (1969) "Collective Bargaining and Trade Union Development in Construction", Report of Post-Donovan Conference, TUC.
- TUC (1973) "Industrial Democracy", Interim Report, TUC.
- TUNSTALL J (1962) "The Fishermen", MacGibbon and Kee.
- TURNER H A, ROBERTS G & ROBERTS D (1977) "Managerial Characteristics and Labour Conflict", Cambridge University Press.
- TURNER R H (1958) "Life Situation and Subculture: A Comparison of Merited Prestige Judgments by Three Occupational Classes in Britain", British Journal of Sociology, 9(4).
- WALKER K F (1969) "Strategic Factors in Industrial Relations Systems", International Institute of Labour Studies, Bulletin 6.
- WEARNE S H (ed) (1970) "Manprod 70 - Management and Productivity of Engineering Site Manpower", UMIST.
- WEARNE S H (ed) (1972) "Problems and Policy in Industrial Relations on Industrial Sites", UMIST.
- WELLISZ S (1953) "Strikes in Coal-Mining", British Journal of Sociology, 4(4).

WILSON REPORT (1969)

"Report of the Committee of Enquiry into Delays in Commissioning CEGB Power Stations", Cmnd. 3960, HMSO.

WINKLER J T (1974)

"The Ghost at the Bargaining Table: Directors and Industrial Relations", British Journal of Industrial Relations, 12(2).

WOOD S J, WAGNER A,
ARMSTRONG E G A, GOODMAN
J F B, & DAVIS J E (1975)

"The Industrial Relations System Concept as a Basis for Theory in Industrial Relations", British Journal of Industrial Relations, 13(3).

'WORKPLACE INDUSTRIAL
RELATIONS" (1968)

An enquiry undertaken for the Royal Commission on Trade Unions and Employers' Associations in 1966, Government Social Survey, HMSO.