THE GRIEVANCE FIELD: An Empirical Study of Grievance Processes in a Plywood Factory

by

Brian C. Murphy
B.A. Columbia University, 1953

A THESIS SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF ARTS

in the Department of

Sociology

We accept this thesis as conforming to the required standard

THE UNIVERSITY OF BRITISH COLUMBIA
August 1964
In presenting this thesis in partial fulfilment of the requirements for an advanced degree at the University of British Columbia, I agree that the Library shall make it freely available for reference and study. I further agree that permission for extensive copying of this thesis for scholarly purposes may be granted by the Head of my Department or by his representatives. It is understood that copying or publication of this thesis for financial gain shall not be allowed without my written permission.

Department of Sociology

The University of British Columbia, Vancouver 8, Canada

Date Sept. 8, 1964
ABSTRACT

THE GRIEVANCE FIELD: An Empirical Study of Grievance Processes in a Plywood Factory

There are three major facets to industrial employer-employee relations: work processes, collective bargaining and grievance processes. The form of the first is established mainly at the initiative of the employer. The second is generally initiated by employee organizations and results in a document called a collective agreement which sets forth agreed upon patterns of interaction between employer and employee. The third, Grievance Processes, are the means whereby individual and group differences of opinion regarding interpretation of abstractions in the collective agreement, formal instructions for work performance, etc. are reconciled.

This study seeks to determine the important situational, behavioral and personal variables associated with differences in quantity and quality of grievance output and union political activity within the plant. It examines the way in which these variables interact with one another within a "field" to produce grievance activity of given character and quantity.

Personality variables, in particular a tendency towards "aggressive" behavior, appear to be of prime importance in determining which employees will be active in presenting grievances, holding union office, and several other activities. Union office-holders and grievers are found to have higher accident rates, to be dunned more by creditors, to participate more on company athletic teams, etc., than other employees.

The communication potential of work positions, and repetitiveness of the work cycle are among the few situational variables found to have a significant influence on the grievance outcome.
Seniority, a structural variable, is found to be extremely important in determining which employees will take part in grievance and union political activity. High Status seems to increase the likelihood of employees holding union office as evidenced by the greater political activity of those born in English speaking countries, with more education, and with higher pay. Status appears to have little effect on the propensity of employees to engage in grievance pressing.

Age appears to be inversely correlated with the tendency of the individual to take part in union political activity. However, it seems to be unrelated to pressing of grievances.

Grievance output in a conventional absentee shareholder owned plywood plant is briefly compared with activity in a "worker owned" plywood plant.
ACKNOWLEDGMENTS

I wish to express my appreciation to a number of individuals and organizations for their very substantial assistance which made completion of this study possible.

I am particularly grateful to the following:

The Industrial Relations Institute of the University of British Columbia which provided a research grant.

Dr. Martin Meissner who, in his role as faculty advisor, provided invaluable guidance and encouragement.

Woods Industries Ltd., the Regional Division and Local Number 5 of the Lumberworkers Union, the Martin Company (pseudonymns all), their offices, professional staff and non-professional employees who generously gave of their time for interviews and provided access to records.

Dr. Noel Hall and Dr. Donald Sampson who, at an earlier stage, did much to stimulate an interest in the intricate relationships between institutions, objects and human behaviour.

Dr. Reginald Robson who, also at an earlier stage, forcefully and candidly pointed out the difference between sound research and scientific kitch.

My wife, Netty Murphy, who, by patiently serving as breadwinner and "Girl Friday" as well as wife and mother, made an otherwise utterly impossible task feasible.
TABLE OF CONTENTS

I.  INTRODUCTION .................................................. 1

II.  THE SETTING FOR THIS STUDY ................................. 12

III. OPERATIONAL DEFINITION & METHODOLOGY .................. 19

IV.  RESEARCH FINDINGS ........................................... 46

V.   A THEORETICAL OVERVIEW .................................... 121

FOOTNOTES ......................................................... 141

SELECTED BIBLIOGRAPHY ........................................... 143
LIST OF TABLES

Table 1: Distribution of Grievances & Related Economic Factors by Quarters
LIST OF FIGURES

Fig. 1a; Holding Some Union Office & Making Job Evaluation Requests 82
Fig. 1b; Holding Some Union Office & Pressing Specific Personal or Group Grievances 82
Fig. 1c; Making Job Evaluation Requests & Pressing Specific Personal or Group Grievances 83
Fig. 1d; Pressing Specific Personal or Group Grievances & Making Job Evaluation Requests 83
Fig. 2a; Seniority & Promotion to Foreman 84
Fig. 2b; Seniority & Holding Some Union Office 84
Fig. 2c; Seniority & Service as Job Steward 85
Fig. 2d; Seniority & Service on Safety Committee 85
Fig. 2e; Seniority & Service on Plant Committee or as Plant Chairman 86
Fig. 2f; Seniority & Making Job Evaluation Requests 86
Fig. 2g; Seniority & Presenting Specific Personal or Group Grievance 87
Fig. 2h; Seniority & Number of Terms of Union Office per Year of Employment 88
Fig. 3a; Birth Date & Holding Some Union Office 89
Fig. 3b; Birth Date & Service as Job Steward 90
Fig. 3c; Birth Date & Service on Safety Committee 90
Fig. 3d; Birth Date & Service on Plant Committee or as Plant Chairman 91
Fig. 3e; Birth Date & Making Job Evaluation Requests 91
Fig. 3f; Birth Date & Pressing Specific Personal or Group Grievance 92
Fig. 3.5a Birthplace & Service as Job Steward 93
Fig. 3.5b; Birthplace & Service on Safety Committee 94
Fig. 3.5c; Birthplace & Service on Plant Committee or as Plant Chairman 95
Figures 4a, 4b, 4c, 4d, & 4e (combined); Education, Holding Union Office, Presenting Grievances 96
Fig. 4f; Education & Service as Job Steward 97
Fig. 4g; Education & Service on Safety Committee 97
Fig. 4h; Education & Service on Plant Comm. or as Plant Chairman 98
Fig. 4i; Education & Pressing Specific Personal or Group Grievances 99
Fig. 4j; Education & Making Job Evaluation Requests 99
Fig. 5a; Pay & Holding Some Union Office 100
Fig. 5b; Pay & Presenting Specific Personal or Group Grievance 101
Fig. 5c; Pay & Making Job Evaluation Requests 102
Fig. 6a; Absenteeism & Holding Some Union Office 103
Fig. 6b; Disciplinary Action & Holding Some Union Office 103
Fig. 6c; Debt Collection Attempts & Holding Some Union Office 104
Fig. 7a; Time Loss Accident Rates & Number of Terms of Union Office per Year of Employment 105
Fig. 7b; Time Loss Accident Rates & Service as Job Steward 105
Fig. 7c; Time Loss Accident Rates & Service on Safety Comm. 105
Fig. 7d; Time Loss Accident Rates & Service on Plant Comm. or as Plant Chairman 106
Fig. 7e; Time Loss Accident Rates & Job Evaluation Requests 106
Fig. 7f; Time Loss Accident Rates & Pressing Specific Personal or Group Grievances 106
Fig. 8a; Bowling & Number of Terms of Union Office per Year of Employment 107
Fig. 8b; Softball & Number of Terms of Union Office per Year of Employment 107
Fig. 8c; Bowling & Job Evaluation Requests 108
Fig. 8d; Bowling & Pressing Specific Personal or Group Grievance 108
Fig. 8e; Softball & Job Evaluation Requests 108
Fig. 8f; Softball & Pressing Specific Personal or Group Grievance 108
Fig. 9a; Observed Communication Rate & Frequency of Election to Safety Committee per Man per Year

Fig. 9b; Observed Communication Rate & Frequency of Election to Plant Committee or Plant Chairman per Man per Year

Fig. 10a; Scatter Diagram Showing Mean Seniority for Jobs & Seniority-Pay Rate Regression Lines

Fig. 10b; Relative Seniority Value of Job & Grievances

Fig. 10c; Relative Seniority Value of Job & Job Evaluation Requests

Fig. 10d; Relative Seniority Value of Job & Grievances

Fig. 10e; Relative Seniority Value of Job & Job Evaluation Requests

Fig. 10f; Observed Communication Rate & Mean Relative Seniority Value of Jobs

Fig. 10g; Length of Shortest Regular Work Cycle & Mean Relative Seniority Value of Jobs

Fig. 11a; Red Circle Rates Nov. 9, 1959 & Service as Job Steward

Fig. 11b; Red Circle Rates Nov. 9, 1959 & Service on Safety Committee

Fig. 11c; Red Circle Rates Nov. 9, 1959 & Service on Plant Comm. or as Plant Chairman

Fig. 11d; Red Circle Rates Nov. 9, 1959 & Job Evaluation Requests

Fig. 11e; Red Circle Rates Nov. 9, 1959 & Presenting Specific Personal or Group Grievances

Fig. 12a; Grievances & Company Economics (time series)

Fig. 13a; Martin Site Plan (North \( \frac{1}{2} \))

Fig. 13b; Martin Site Plan (South \( \frac{1}{2} \))

Fig. 14a; Martin Site Plan (North \( \frac{1}{2} \))

Fig. 14b; Martin Site Plan (South \( \frac{1}{2} \))
CHAPTER I
INTRODUCTION

Industrial Relations is a catch-all term which can legitimately be applied to virtually all interaction between employer, employees, clients and other persons in settings involving paid employment. Any one of a number of different types of enterprise may be included under this heading: manufacturing, mining, service, wholesale, retail, professional, government, and many more. Nearly as lengthy a list may be compiled of the sorts of interaction processes involved: formal on the job relations between supervisory personnel and subordinates, formal work oriented relationships between employees, informal social relationships between employees or between employees and supervisors, collective bargaining, grievance processes, etc.

In undertaking this study, I have selected a small area of this immense field for intensive examination. In general terms, this area may be labelled, grievance processes in assembly line factories. In such factories a number of elements will usually be present: The owner will be a limited company represented at the plant by salaried officials including a manager, a superintendent, several foremen and one or more personnel or industrial relations managers.

The product will be pieced together by a large number of employees each of whom performs only a small portion of the total manufacturing process. Raw product will enter a rather large building at one end, pass through several dozen hands and/or machines operated by employees and emerge at the other end of the building as finished product ready for sale or for additional refinement elsewhere. The time span from entry as raw product to exit as finished product is ordinarily quite short, ranging from a few minutes to a few days.
Because of the heavy capital investment in machinery and equipment, production is a "round the clock" operation. The plant is manned by three distinct crews each of which performs much the same jobs as the others during a shift of approximately 8 hours. Workers change from one shift time to another in accordance with a plan laid down in advance. Usually this involves regular rotation at intervals of from one week to three months. Foremen are assigned to shifts along with the employees they supervise. Upper level management, however, usually works only day shift but may have to attend at night to deal with special problems.

There is somewhat less uniformity in modes of remuneration for employees than in the other institutional characteristics noted above. Commonly in Canada employees are paid a straight hourly rate which is set in advance for each particular job. Those jobs requiring more skill, or considered more important are paid higher rates. Hours in excess of some fixed number per day or per week are compensated at premium rates; often midnight and evening shifts bring small premiums as well. In the United States especially, this system is frequently combined with an "incentive" scheme in which employees receive a relatively low hourly "day rate" plus bonuses for each acceptable unit of production in excess of a norm established by time study. These production incentives may be earned individually or by groups of employees working on closely related tasks.

In any case, the pay scale and/or incentive rate is standardised and not subject to individual bargaining between employer and employee. Occasionally these standard rates are set unilaterally by the employer. Much more often they are established by bargaining between the employer and an organization representing the employees collectively. Usually this employee organization is a trade union with a more or less permanent existence which not only bargains at one or two year intervals to establish wages and
working conditions but also represents employees in reconciling their day to day differences with lower level management.

Impersonality is an important characteristic of nearly all formal relations between employees and management. Work processes, largely determined by management, are standardized and not subject to substantial change at the initiative of any individual. Wage rates and major conditions of employment may ordinarily be amended only if the amendment applies to all employees and then only at specified times several months apart and after engaging in some sort of formal re-assessment process such as collective bargaining.

In grievance handling, however, much of this impersonality disappears. Grievance processes are the means whereby individual and group differences of opinion regarding interpretation of abstractions in the collective agreement, formal instructions for work performance, etc., are reconciled. Through grievance processes some sort of working consensus is achieved when differences arise between management and individual employees or, less often, between employees. More often than not when union and management are discussing grievances, the names of individual employees or supervisors will figure prominently in the discussion.

It is true enough that individual employees seldom carry their own grievances beyond the initial discussion stage. Unless differences are resolved at the first discussion some union official: job steward, committeeman, business agent, ordinarily represents the employee in taking it up with management. Often, too, these grievance representatives initiate action themselves in the hope of bettering conditions for all or a large number of their constituents. None-the-less, the problems dealt with are of a low order of generality and arguments about individual injustices are likely to carry more weight than reference to general
principles. Concrete cases involving known individuals are the meat of grievance handling.

Because representatives such as job stewards, committeemen, etc., ordinarily handle grievance processes on behalf of employees, a political process through which these representatives are selected has developed. Considerable attention will be given in this paper to various types of behavior in which these representatives are prone to engage. Consideration will also be given to some of the personal and situational characteristics which are associated with grievance and political activity. Economic determinants of grievance activity will also be examined.

Many factors related to grievance activity will have to be entirely neglected here; for instance, managerial attitudes, social relations between employees, etc. This is not because they lack significance, but simply because a study must be limited somewhere if only to enable the research worker to complete his task before eternity. Unfortunately, although the data from this study point to the very substantial influence of personality factors, time limitations prevented gathering data in this area.

This study began with the intention of making a number of systematic comparisons between grievance processes in a conventional plywood plant owned by absentee shareholders and in a worker owned plywood plant. Unfortunately it was impossible to carry out more than a small fraction of the originally intended comparisons because of the refusal of the Board of Directors at the worker owned plant to permit access to either the plant, the personnel, or documents. This was the Olympic worker owned plywood plant which, like all other organizations or persons mentioned herein as subjects, will be known only by a pseudonym.
Officials at Martin, the conventional absentee shareholder owned plywood plant, were even more eager to assist me in conducting this study than Olympic officials were recalcitrant. Complete freedom of movement through the plant, time for interviews and access to pertinent documents were all readily granted. The same willingness to co-operate was displayed by the employer representative Woods Industries Ltd., the Regional Division of the Lumberworkers Union, Local Number 5 of the Lumberworkers Union, and employees and union officials at the Martin Plant. It was thus possible to systematically compile a considerable amount of data relevant to grievance processes at the Martin Plant. Only a very small amount of quite unsystematic data was available from Olympic.

Thus unforeseen circumstances shaped, to a considerable extent, the direction which this study was to take. The comparative analysis between types of plants became a minor part of the study and more attention was given to investigating relationships between various aspects of grievance processes and personal, job situational, social, and historical characteristics.

This study is exploratory in nature but it attempts to survey the situation with moderate accuracy by taking careful, albeit somewhat rough, measurements of a number of variables expected to be significant. It is primarily descriptive but it emphasizes the description of characteristics of sufficient generality that most can be readily identified in many other industrial situations. Attention is mainly directed to relationships between quasi-generalized variables in the hope of providing a foothold for further systematic research in which variables may be operationalized and measured with at least modest rigour.

Grievance processes have been studied before and one is not treading in an absolutely untracked wilderness. Rather, at this stage, one is in
a position somewhat analogous to that of Lewis and Clark at the beginning of their great explorations of western United States. While one has some idea of what lies ahead, the first large scale systematic surveys are just now being undertaken.

And, although a great number of theoretical guidelines developed in other areas of *sociology* and psychology are virtually certain to prove applicable, the connection with grievance processes is at present not very clear.


Dubin's was a comparative study based upon historical grievance data and observations in three distinct grievance atmospheres labelled the conflict, arms length, and co-operative. He found substantial differences in quality and frequency of grievances among the three atmospheres. It also appeared that, as the degree of co-operativeness of the atmosphere increased, so did the success ratio of the unions in winning grievances. Dubin utilized systematically gathered objective data; his area of concern was, however, a relatively unrestricted one.

Sayles' study appears to have been built largely upon impressionistic evidence gathered from relatively unstructured interviews with a large number of management officials, union officers, and workers and from a lesser quantity of rather unstructured observations of industrial situations. His area of concern is a broad one and his theories are liberally illustrated with cogent case studies.
In greatly abbreviated form, his major findings are:

1. The most active workers in grievance and associated activity are those in the middle ranges of the pay scale. The highly paid workers have somewhat lower rates and the lower paid workers, much lower rates of activity.¹

2. Highly paid production workers are the most active grievers; craft workers grieve somewhat less although they are somewhat more active and influential in general union politics.⁵

3. Workers in the middle age groups grieve more than either the very young or the very old.⁶

4. The greater the size of the work group, the more concerted grievance activity there will be.⁷

5. The greater the number of workers doing similar tasks, the more group grievance activity there will be.⁸

6. Those workers whose jobs involve a high degree of judgement tend to grieve more than those whose jobs involve a low degree of judgement.⁹

7. The more indispensable the worker, the more grievances.¹⁰

8. The more precisely management can measure the work load and work pace, the more grievances will be produced by the group.¹¹

9. There is no clear relationship between repetitiveness of the job and the number of grievances emanating from the work group.¹²

10. The greater the control of the worker over job performance, the more grievances will arise.¹³

11. High status persons are more likely to get union offices.¹⁴

12. Grievance activity and union politics are related.¹⁵

13. The work group, rather than the union, is the source of grievance activity.¹⁶
The study by James Kuhn emphasizes the bargaining aspect of Grievance Processes. Like Sayles, he locates the source of grievance activity in the work group. He coins the term "fractional bargaining" for the main grievance activity of individual work groups. In his view, they are engaged in bargaining with lower level management for special concessions for the immediate employee group, often without regard for overall union objectives.

Kuhn postulates that the following are the characteristics of the technology most conducive to "fractional bargaining".

1. Continuous changes in methods, standards and materials.
2. Interaction among workers is possible.
3. The work force is subdivided into approximately equal sized compartments.
4. There is a rigidly sequential processing of materials into one major type of product.\(^\text{17}\)

He concurs with Sayles that unskilled labour seldom takes any part in grievances or in union political activity and that skilled tradesmen grieve little and are very active in the union. He suggests that the lack of activity of the former is due to the lack of a work group with a sense of identity. Skilled tradesmen, he hypothesizes, are more active because their jobs are more desirable, easier, more interesting, and because they are under less pressure.\(^\text{18}\)

Kuhn also suggests that workers who are close to one another are more likely to participate in group activities unless noise or artificial barriers prevent them from doing so.\(^\text{19}\)

Although he does not present figures which can be compared, he indicates that a great deal of "non-peaceful", "disruptive" grievance activity is pretty well par for the course. Wildcat strikes are very common occurrences
and grievance bargaining and disruptive tactics are a significant part, or the largest part, of all grievance work.\textsuperscript{20}

Among the weapons commonly used by workers against front line supervisors are the slowdown and various other forms of limited co-operation, the wildcat strike, nuisance grievances, work to rule, and ostracization.\textsuperscript{21}

Kuhn notes that special worker rights have created a second centre of authority at the workplace in the in-plant union officials. The actions of this authority centre are swayed more by the political power of the work group than by an over-riding sense of what is right and what is wrong.

There is political value in pushing grievances just before election time.\textsuperscript{22}

While there is competition for the higher in-plant union positions, Kuhn states, others may be hard to fill. The latter is generally true of shop stewards' positions with the result that any man who wants to can find a shop steward's position to fill.\textsuperscript{23}

Some figures which he presents for other purposes suggest that the frequency of grievances may be positively correlated with the general level of economic activity.\textsuperscript{24}

Combining the results of three pioneering studies and making somewhat extended inferences, the following general propositions about grievance activity would seem to be true.

1. The more conciliatory the relationship between union and management, the lower the rate of grievances and the higher the ratio of union successes.
2. The rate of grieving varies directly with pay except that skilled tradesmen tend to grieve somewhat less than other highly paid workers.
3. The amount of union political activity varies directly with pay although skilled tradesmen are somewhat more active than one would expect on this basis alone.
4. The rate of grievance activity varies directly with age of the worker until late middle age when it begins to vary inversely with age.

5. High status persons are more likely to hold union office than low status persons.

6. Those workers who are politically active in the union tend to grieve more than those who are not.

7. The higher the degree of judgement required of the employee in his work, the higher will be his grievance rate.

8. The greater the amount of communication possible between workers and the more people each has to communicate with, the more active will they be in pressing grievances.

9. The more strategic a work group's position vis-a-vis the production process, the higher the grievance rate.

10. Grievance rates increase when market conditions are good and employment is high.

While these propositions would seem to be true on the basis of existing evidence, it should be emphasized that this evidence is, in most cases, far from conclusive. Much of it is quite impressionistic; even moderately rigorous tests have not been applied to the hypotheses. Where greater rigour has prevailed, as in Dubin's study, both the area of concern and the breadth of the sample are small. Both re-examination of the propositions and refinement of investigative techniques would seem to be indicated.

In this study, I have attempted to do something of both. Many of these propositions have been re-examined, in particular portions of numbers 2, 3, 4, 5, 6, 8 and 10. Many of the relevant variables have been operationally defined and measured with somewhat more precision than was apparent in earlier studies. And, although my study was mainly restricted
to one institution, it has at least added one more geographical region and one more type of industry to the list of those in which investigation of grievance processes has been carried out. In addition several other aspects of grievance processes have been looked into in the course of this research.

In section II of this paper the physical and social setting within which this research was conducted is briefly described. In section III, operational definitions of major variables are given in some detail followed by a brief discussion of the analytical methods employed. In section IV the research findings resulting from these investigations are presented and discussed; there some of the propositions above are found to be confirmed; in other cases doubt has been cast on their validity or amendments suggested by the data. Finally, in Section V I have presented in the light of my own data and that of others, a theoretical overview of grievance processes. It attempts to show how a wide variety of factors interact within a field to produce grievance activity of given type and volume. Hopefully, it will also serve as a guide to future research.
CHAPTER II
THE SETTING FOR THIS STUDY

Most of the data collected for this study pertain to the Martin Plant, a conventional privately operated plywood factory owned by a limited Company with about 215 employees. A very small amount of data was also gathered about the Olympic worker owned plywood plant which has about 220 employees. The layout of the Martin plant and route of the production stream are shown in figures 14a and 14b.

On site authority at Martin is vested in a manager who is responsible for marketing and purchasing as well as operations. In practice he delegates most operational authority to the Plant Superintendent. The Superintendent personally directs production with the assistance of approximately 8 foremen and a recently appointed Assistant Superintendent. A combination Personnel-Manager-Safety director also assists the manager.

Employees are represented by the Lumberworkers Union through several of its subsidiary organs.

The Regional Division of the Lumberworkers union has jurisdiction over a several thousand square mile area in which the Martin Plant is situated. It conducts annual or biennial negotiations with Woods Industries Ltd. to set major working conditions including basic, and many subsidiary, wage rates which are incorporated in the Master Agreement. Actual negotiations are conducted by an elected committee composed of representatives from various locals and including certain paid officials from the Regional. The Regional also performs certain general servicing, organizing and administrative tasks including, jointly with Woods Industries Ltd., the Job Evaluation Programme. It is operated by full time paid elected officials with the assistance of a full time paid appointed staff.
Local Union Number 5 holds the certification for collective bargaining with the Martin Plant. However, like most other locals in the area, it has passed on its rights to conduct, but not to accept or reject, negotiations to the Regional Division with which it is affiliated. It has a total membership of several thousand located in a number of lumber processing units in the area. The local union acts as a co-ordinating agent within its area of operation, organizes the unorganized and assists elected in-plant officers with grievance and other problems which they cannot adequately handle alone. At some plants, particularly those recently organized, it does conduct negotiations itself. The local union also sets major policy which governs the actions of the in-plant committees.

The local union is headed by elected officials including President, Secretary, Treasurer, etc. These positions are ordinarily filled by full time paid personnel but do not necessarily have to be. Lower positions are usually filled by persons working full time in one of the plants. The Local union elects delegates to superior bodies including the Regional Convention and the Wage Policy Committee.

The Plant Committee is composed of 6 members elected annually in each plant. It is presided over by the Plant Chairman who is similarly elected. It is by far the most influential division of the union apparatus in dealing with matters of local plant concern. It cannot conduct negotiations to amend the collective agreement. Aside from this, there are few practical limitations to the scope of matters it is authorized to handle. In general any questions which are not almost immediately settled between the employee and his immediate supervisor become its concern. In recent years it has taken over many functions formerly performed by Job Stewards in connection with minor on-the-job problems. About 5% of its time is spent dealing with questions relating to seniority, job posting, promotions, layoffs and transfers.
The Plant Committee may, and often does, negotiate special conditions which are substantial improvements in the rights and obligations set forth in the Master Agreement. At Martin, these special conditions included a Job Training Programme (vesting rights to specific jobs in incumbents of "trainee" positions) and a Mutual Benefit Fund to which the company contributes. The Local Union office is supplied with minutes of all its meetings with management; filing without comment seems to signify approval by Local No. 5. Occasionally a decision of the Plant Committee may be reversed in a letter signed by the President of the Local as being "contrary to local union policy".

The Plant Committee and Plant Chairman meet with management whenever sufficient problems warrant a meeting. On the average this occurs 6 - 8 times per year. At these "Management-Union-Plant Committee" meetings, management is represented by the Plant Superintendent and the Personnel Manager-First Aid Man. Occasionally a foreman or the Plant Manager may also sit in. When serious problems arise one or more paid officials from Local Union no. 5, from the Regional Division, or from Woods Industries Ltd. may also attend. Minutes of these meetings, when signed by both parties constitute a binding agreement regarding issues settled.

The Safety Committee is also composed of 6 annually elected employees. It elects its own chairman from among these 6. It meets monthly with management representatives including the Personnel Manager-Safety Director to consider matters of safety, health and, occasionally, comfort. At these joint meetings it makes numerous nominally independent decisions regarding these matters.

However, although nominally independent and seldom interfered with, the Safety Committee is in fact subordinate to the Plant Committee. Its decisions must be in accord with overall policy fashioned by the Plant Committee and/or
the Local Union. This subordinate status was forcefully demonstrated on one occasion; the joint Safety Committee-Management meeting had decided that warning disciplinary slips would be issued to employees violating safety regulations. Upon being apprized of this, the Plant Committee instructed it to rescind this decision. Consequently the policy of issuing warning slips for safety violations was never implemented.

Low men in the union hierarchy are the Job Stewards. While nominally they have fairly extensive duties concerned with primary processing of grievances, many of these have in recent years been taken over by the Plant Committee. While, technically, a Job Steward should accompany a man to see his foreman or take up a matter with the Personnel Manager, this is now very often done by a Plant Committee member or by the Plant Chairman. Probably job stewards still serve a vital function in relaying information from the immediate job situation to the Plant Committee members.

Job Stewards are sometimes elected and sometimes appointed. Generally elections are held only when there are too few Job Stewards. Apparently nearly anyone who shows an interest in union affairs can be appointed Job Steward.

One more organization which plays an important part in the picture is Woods Industries Ltd. This is a representative of employers in the forest industry which is somewhat analogous to the Regional Division of the Union side. However Woods Industries Ltd. is set up as a limited company; its client companies have somewhat the same relation to it that legal clients have to a law firm. On behalf of its client companies it conducts negotiations with the Regional Division of the Lumberworkers Union to amend the Master Agreement. Also, together with the Regional Division of the Union, it administers the Job Evaluation Programme. It also provides advice and miscellaneous services on labour relations problems on request of the
companies. It has several full time paid employees with specialized training and/or experience in industrial relations administrative problems.

Woods Industries Ltd. performs three major types of services for its clients: advisory, administrative, and co-ordinating. In general the companies it represents make final decisions on matters of policy. However, its professional advice is very highly regarded as a decision-making aid; occasionally it may be given limited independent decision making authority. On questions of mutual concern it often calls meetings of representatives of affected companies.

All wage rates for non-supervisory personnel at Martin and in other conventional plywood plants in the area are hourly. In 1959, a unique plan for setting most wage rates relative to the negotiated basic rate was established. This is the Job Evaluation Programme. Its structure is a part of the Master Agreement and it is administered jointly by Woods Industries Ltd. and the Regional Division of the Lumber Workers Union.

At its inception each of these two organizations hired a Job Evaluator. These two Job Evaluators, known as the "Industry Committee", were to work together to determine the "correct" relationship of wage rates for different jobs to the basic rate and to one another. In accordance with a carefully prepared plan to which Union and Management of all companies had agreed in advance, studies were undertaken in each of the plywood plants and detailed job descriptions written.

At each plant a "Plant Job Evaluation Committee" was set up composed of two management representatives (at Martin the Superintendent and the Personnel Manager) and two Union representatives (ordinarily the Plant Chairman and one other leading member of the Plant Committee). This committee was asked to review the job descriptions in its own plant, to suggest any changes it thought necessary, and ultimately to signify agreement with the final draft description.
The "Industry Committee" (the Regional Union Job Evaluator and Woods Industries Ltd. Job Evaluator mentioned above) then rated each job on a pre-established multi-faceted scale. The totals on the individual facets of the scales were then added to give a point rating for each job. This point rating was then converted into pay rates in accordance with a pre-established conversion table related to the basic rate. In case of disagreement, the two Job Evaluators were expected to reason with one another until agreement on point ratings was reached.

Once initial rates had been thus established, employees and employers had the right to request re-evaluation of allegedly changed jobs and evaluation of new jobs. By and large this involved a repetition of the process outlined above. However requests by individual employees had to be approved by at least two of the four members of the "Plant" Job Evaluation Committee" before being passed on to the "Industry Committee". During its first year of operation the "Plant Job Evaluation Committee" at Martin did refuse to pass a number of requests on to the "Industry" Committee". Since that time, however, the two union members have consistently approved requests from employees for evaluation while management representatives have not always done so.

The Martin Plant was built in 1954-55 and commenced operations early in 1955. Many of the production employees were brought in from other operations of the company to help with construction following which they became regular production operators in the newly finished plant.

Olympic Plywood, the worker owned plant, is two or three years younger than Martin. It is also established as a limited company but all, or nearly all, shares are held by employees. Each employee-owner must hold a share currently value at around $5,000. In addition to the 160 owner-employees it has about 50 casual employees who hold no shares.
The supreme authority at Olympic is the annual meeting which all shareholders are entitled to attend. Interim authority is vested in an elected Board of Directors which hires the manager, a few outside paid foremen and casual help. Compared to the manager at Martin, Olympic's manager has relatively little authority and his decisions are at all times subject to approval by the Board. Major policy is made by the Board with the manager acting in an advisory capacity. Policy made by the Board may be reconsidered by the Annual Membership Meeting.

There is no employee organization, not even for the casual labour. The company is the only political structure present. All employee-owners are paid the same wage and they often do not have fixed jobs for long periods of time. Wage rates are set by the Board of Directors.
CHAPTER III
OPERATIONAL DEFINITIONS AND METHODOLOGY

As a general rule social scientists, reporting the results of their empirical studies, bury the discussion of investigative techniques in an appendix at the end of their report. My personal viewpoint, as a reader, is that it is quite frustrating to have to keep referring to an unread portion of a book in order to relate conclusions of a somewhat abstract nature to the concrete experimental or observational situations from which they were drawn. Social scientists, like lesser mortals, are subject to the same non-rational operating principles of human behaviour as those they study and the temptation to omit this page flipping task is not unlikely to be overpowering.

For this reason I shall now proceed with a general outline of the operational definitions and other methodological conveniences which are incorporated in this study.

Operational Definitions - The major variables dealt with and the operational definitions adopted are as follows:

The first group of variables, all prefixed by the letter "P" are personal characteristics indicative of status, behavior, or both for the individuals concerned. Sources for obtaining the necessary information were: Company personnel records, Woods Industries Ltd. files, Local Union files, and Regional Division Union files; in some cases supplementary information was obtained in interviews with management and union officials.

P1 - Pay: Pay rates for all employees studied were standardized by union agreement and/or the subsidiary Job Evaluation Programme. At the time this study was undertaken, pay rates ranged from the basic rate of $2.00 per hour to $2.83 per hour for a lathe operator. Job evaluation divided this...
range into 17 classifications of 4% or 5% increments. For convenience these classifications were substituted for the actual rates; those few jobs falling between classifications were rounded to the nearest one. For most analytical purposes this range was divided into 5 nearly equal categories as follows: $2.33 - 2.63, 2.58 - 2.48, 2.43 - 2.33, 2.28 - 2.20 and 2.16 - 2.08. An exception was made in calculating the Seniority-Pay Regression Line; there actual hourly rates to the nearest 1/2 cent were used. Most employees changed jobs and pay rates many times in the course of their career at Martin; utilizing these ever changing pay rates would have been a major book-keeping task. For convenience, therefore, when pay rates of individual employees are referred to, the prevailing ones for each individual in or near December 1963 are used. Defense of this convention requires the assumption that individuals remain in more or less the same pay positions relative to one another. While this assumption has not been systematically put to the test, it does appear to be generally true.

P2 - Seniority or Date Hired: In general the dates of first employment at the present Martin plant were used. Persons who were hired for a very short time, terminated and rehired a long while later were assumed to have been hired at the commencement of their second term of service. A few employees were transferred from an older Martin plant in another location when this one opened in 1955 or while it was under construction in 1954. Their date of hiring was assumed to have been the date at which they commenced employment at the present Martin plant. In general layoffs of less than 6 months were considered not to be a break in employment. For convenience hiring dates were analyzed in categories including 2 years each as follows: 1954-55, 1956-57, 1958-59, 1960-61, and 1962-63.
P3 - Birth Date or Age: Birth dates were taken as the year of birth. For convenience these were combined into the following 5 categories: 1895-1909; 1910-1919; 1920-1929; 1930-1939; 1940-1949.

P4 - Education: The standard used was the number of years of formal education. No distinction was made between university education and technical studies supplementing grade school or high school. For analytical purposes the following classes were used: 13 years and up; 12-11 years; 10 years; 10-9 years; 8-7 years; 6 years and under. In 24% of the individuals' cases, no information about education was available. These "no information" cases were excluded from comparisons involving education.

P5 - Birthplace: For convenience, birthplace was compartmentalized into the following 5 categories: (1) United Kingdom and United States; (2) Canada; (3) Northern Europe (Russia, Poland, Hungary, Yugoslavia, Rumania, Germany, Netherlands); (4) Southern Europe (Spain, Portugal, Italy); (5) Other (Mainly South & Central America). In 16% of the individuals' cases, no information about birthplace was available. These "no information" cases were excluded from comparisons involving birthplace.

P6 - Status Inconsistency: This was an attempt to operationalize the concept of "status inconsistency" utilized by Zaleznik to explain industrial leadership. It measures the degree of lack of congruity between the 5 status factors of Pay, Seniority, Age, Education, Ethnicity. Zaleznik has postulated that individuals with high status inconsistency will be more prone to seek out positions of informal leadership in industrial work groups than those with low status inconsistency. For this study, the operational definitions and categories of P1, P2, P3, P4 and
P5 were used as a basis. Birthplace was ranked in the order given above on the basis of the fairly substantial differences in average pay between the differing birthplace groups at Martin.

<table>
<thead>
<tr>
<th>Status Factor</th>
<th>Status Ranks</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Pay (Pay Grade)</td>
<td>2.83-2.63</td>
</tr>
<tr>
<td></td>
<td>(17-13)</td>
</tr>
<tr>
<td>Education (years)</td>
<td>'13 &amp; up</td>
</tr>
<tr>
<td>Birthplace</td>
<td>U.K. or U.S.</td>
</tr>
<tr>
<td></td>
<td>Europe</td>
</tr>
</tbody>
</table>

Sample Calculation of One Individual's Status Inconsistency:

<table>
<thead>
<tr>
<th>Status Factors</th>
<th>Rank Number</th>
<th>Differences</th>
<th>Status Inconsistency</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Pay</td>
<td>5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Seniority</td>
<td>2</td>
<td>3</td>
<td>Sum of differences: 2.0 = 2.0</td>
</tr>
<tr>
<td>3. Birthdate</td>
<td>4</td>
<td>1 2</td>
<td>Number of comparisons 10</td>
</tr>
<tr>
<td>4. Education</td>
<td>1</td>
<td>4 1 3</td>
<td></td>
</tr>
<tr>
<td>5. Birthplace</td>
<td>2</td>
<td>3 0 2 1</td>
<td></td>
</tr>
</tbody>
</table>

The higher the status inconsistency index number, the less congruence between status factors.

Each individual employee's status inconsistency was calculated on the basis of factor values obtaining on or around December 1963 or, if the employee terminated earlier, at time of termination.

P7 - Marital Status: The marital status for each individual employee was analyzed under one of three categories: Single; Married; Separated/Divorced. The category assigned was, in each case, that prevailing on or around December 1963 or, if the employment terminated earlier, at time of termination.
Six of the seven variables so far considered are directly concerned with the concept of Status Inconsistency. However, each might also be expected to have significance independently of this composite term. Pay rates, even in a situation where strict seniority prevails, may be an indication of the desire of the individual to "improve" his position (Seniority provides opportunities but does not require the individual to take advantage of them.). It may also be regarded as an indication of status in the industrial institution relative to other employees. As such, it could be expected to be positively correlated with both the drive and the ability to succeed in union politics.

Seniority, similarly, may be regarded as a measure of the employee's status in the organization and this may also be true of education. The latter is also likely to bespeak differences in ability to perform a number of politically useful tasks and may be associated with differences in parental expectations and up-bringing and, consequently, needs and drives of the adult individual concerned.

Because of widespread biases towards different nationalities, birthplace is likely to have some influence on the advancement possibilities of individuals in union politics as well as in the economic sphere. National differences may also account for differences in behaviour stemming from differentiated needs and drives.

Just what influence Marital Status may have upon grievance activity is difficult to state in advance. However, because of the heavy continuing responsibilities incurred throughout marriage, one might expect those involved to have somewhat different orientations towards life than those electing to remain single.
P8 - Absenteeism, Tardiness: Complete records of Absenteeism and Tardiness were not available. However, a number of employees' records had notations of the number of absences or tardy arrivals over a considerable period of time. Presumably these particular notations indicated that, in the company's view, the attendance records of the employees concerned were not entirely satisfactory. For analytical purposes, employees were categorized as either having, or not having, an absenteeism-tardiness record on the basis of these company records. Because of the small number of absenteeism-tardiness cases, no attempt was made to subdivide on the basis of frequency of absence or tardiness.

P9 - Disciplinary Action: Several employees had notations on their personnel records of disciplinary action of one sort or another taken against them for alleged violations of company rules. On the basis of these notations, employees were categorized as either having or not having a disciplinary action record. Because of the small number of disciplinary action cases, no attempt was made to subdivide on the basis of frequency of disciplinary action. It appeared that in all, or nearly all, cases where disciplinary action was taken this was duly noted in the personnel records of the employees concerned.

P10 - Debt Collection Attempts: Correspondence in the files of several employees indicated that action had been taken through the company by one or more creditors to collect money allegedly owing. This ranged from mildly worded requests for the company to assist the employee to recognise his responsibilities to garnishee orders processed through the civil courts. It appeared that, in all cases where such action had been taken against an employee, traces appeared in the personnel files. On the basis of these records, employees were categorized as either having, or
not having, debt collection attempts made upon them through the company. Because of the small number of cases in which debt collection attempts had been made, no attempt was made to subdivide on the basis of frequency of debt collection attempts.

P11 - No Time Loss (NTL) Accident Frequency: Complete records of all NTL accidents occurring at work from January 1959 through August 1963 were obtained. From this and from the employment records, the number of NTL accidents per month of employment was calculated for each employee. For analytical purposes, these frequencies of accidents per month were subdivided into the following 5 categories: 0 - .02; .03 - .05; .06 - .08; .09 - .11; .12 & up. Since nearly all accidents involving even so much as a splinter in the finger are reported to the Safety Director and treated and recorded, these records can be considered full and complete.

P12 - Time Loss (TL) Accident Frequency: Complete records of all TL accidents occurring at work from January 1959 through August 1963 were obtained. From this and from the employment records, the number of days lost, on account of accidents occurring at work, per month of employment was calculated for each employee. For analytical purposes these rates per month were subdivided into the following 6 categories: 0; .01 - .04; .05 - .09; .10 - .29; .30 - .49; .50 & up. Since all Time Loss accidents are reported to the Safety Director, treated and recorded, these records can be considered full and complete.

Absenteeism-Tardiness, Disciplinary Action, Debt Collection, and Accident Frequency are closely related types of behavior. All are "non-conformist" activities in the sense that they are more the exception than the rule. All are considered socially undesirable; all upset, to
some extent the normal functioning of social mechanisms and all harm, in some way, certain individuals or groups. Absenteeism-Tardiness is often considered to be an alternative means of expressing grievances along with violations of company rules leading to disciplinary action.

P13 - Bowling: From Bowling League records of the current year, an interview with the Bowling League Secretary, and an interview with the President of the Bowling League, the names of all employees who had bowled in the League since its inception in 1955 were obtained. While memory failure on the part of the person interviewed may have resulted in the loss of a few names, I would judge that this loss would be no more than 5% - 10% of the total. From this information, employees were categorized as either having, or not having bowled. Information was spotty and unreliable on extent or duration of participation; therefore no analysis on this basis was attempted.

P14 - Softball: From an interview with the Coach of the Martin Company Softball Team, the names of all employees who had played on the team since its inception in 1957 was obtained. While memory failure may have resulted in the loss of a few names, I would judge that this loss would be no more than 5% - 10% of the total. Because of the small number of players, no attempt was made to analyze on the basis of extent or duration of participation. From the information above, employees were simply categorized as either having, or not having, played softball.

P15 - Foremanship: A small number of employees were promoted from inferior positions to foremen according to company personnel records. On the basis of these records, employees were categorized as either having been, or not having been, promoted to foreman from the ranks.
Persons who began their employment at Martin as foremen were not considered.

P-16 - Some Union Office: From Union records the names and dates of service of all employees serving as Job Stewards, Safety Committee Members, Plant Committee Members, Plant Chairmen, and Plant Job Evaluation Committee Members from 1955 to the beginning of 1964 were obtained. Records of all offices for 1955 were somewhat spotty except for the Plant Committee and Plant Chairman. Records for all offices except Job Steward seem to be complete from 1956 through 1964. Possibly as many as 10% - 15% of the names of Job Stewards were missed because of records of doubtful completeness. Names for the Plant Job Evaluation Committee are complete from its inception until early 1964. For analytical purposes, employees were categorized as either having served, or not having served, in some union office on the basis of the above information. (See P23, below, where this is expressed as a rate per year of employment.)

P17 - Job Steward: From Union records noted above under P16, employees were categorized as either having, or not having, served as Job Stewards.

P18 - Safety Committee: From Union records noted above under P16, employees were categorized as either having, or not having, served on the Safety Committee.

P19 - Plant Committee, Plant Chairman: From Union records noted above under P16, employees were categorized as either having, or not having, served on the Plant Committee or as Plant Chairman. Because of the relatively small numbers who had served as Job Steward, on the Safety Committee, or on the Plant Committee or as Plant Chairman, no attempt was made to analyze these separately on the basis of a participation rate per year of employment.
28.

P20 - Red Circle Rates (RCR) Nov. 9, 1959: A list in Union files indicated that, when Job Evaluation was instituted in 1959, 18 employees were put on red circle rates. This meant that, unlike all other jobs which were evaluated at the prevailing or a higher rate, these jobs (sheet turners and core feeders) were evaluated at a lower rate than the prevailing one. However the Red Circle Rate clause of the Union agreement protected job incumbents from loss of earnings; subject to rather unrestrictive conditions they would continue to work at the old hourly rate. Only employees newly posted to these jobs would work for the new lower hourly rates. Employees categorized as "RCR Nov. 9, 1959" were the incumbents of sheet turner and core feeder jobs when Job Evaluation becomes effective and retained the pre-existing hourly pay rates. Their jobs were evaluated from $1\frac{1}{2}$ to $1\frac{1}{2}$ below the pre-existing rates.

Here was an event which reflected unfavourably upon certain employees. Should one expect those employees affected to work out their dissatisfaction by indulging in more grievance activity for a time thereafter?

P21 - Job Evaluation Requests: Information obtained from both Union and Management files showed which employees had submitted signed requests for evaluation of jobs they held since the inception of Job Evaluation in 1959. Since it was possible to verify this information from two sources it was felt to be full and complete. Employees were put into one of two categories depending on whether they had, or had not, signed requests for Job Evaluation of their jobs. Because of the small number of employees making Job Evaluation Requests, analysis on the basis of rate of making requests was not attempted.
P22 - Pressing Specific Grievances: Records of Union-Management Plant Committee meetings were made available by both Management and Union. A Union official was interviewed on the subject of every meeting since January 1960. Additional interviews with management personnel made it possible to largely reconstruct the record of grievances raised from November 1959 to November 1963. From the record of these meetings, which covered quite a range of topics, the instances were extracted in which the meeting had dealt with a specific personal or group problem upon the request of one or more of the employees concerned. Those employees who had, at one time or another since November 1959, requested the Plant-Management Committee to deal with their problems were entered by name in the "Pressed Specific Grievance" category. Because of the small number of employees involved in pressing specific grievances, no attempt was made to subdivide on the basis of rates of pressing grievances.

P23 - Some Union Office, Number of terms per year of Employment: Data used for P16 were combined with data from Personnel files regarding term of employment to calculate for each individual employee the number of terms in some union office per year of employment. Since employees sometimes held more than one office at a time, the figures went as high as 1.75 terms of union office per year of employment. Even though technically on leave of absence, when employees became full time paid employees of the union with little likelihood of returning to the plant, their service with Martin was considered to have ended. For analytical purposes, the following five rate subcategories were used: 0; .01 - .25; .26 - .50; .51 - .75; .76 & up.

When holding of union office is expressed in a straight yes or no form, one would have to expect that those employees longest in the plant
would, by chance alone, have been more likely to have held union office. By expressing union officeholding as a rate of participation per year of employment, we equalize the chance factor for all employees regardless of length of service.

**JOB CHARACTERISTICS**

The next group of variables, all prefixed by the letter "J" are characteristics of the 55 odd jobs at Martin which, hopefully at least, are independent of the individuals filling them at any particular time. The first, **observed communication rate**, was felt to be important because of the social nature of grievances and union political activity. That is, it seems unlikely that either grievances or political activity could take place in the absence of communication. One would expect, therefore, that variations in the possibilities of communicating in different jobs would be associated with differences in participation in grievance and political activities. Leisure, J4 and Noise J21 were each expected to influence the amount of communication possible at any given work station.

It was felt that incumbents of tedious jobs would tend to engage in more grievance activity than those in more interesting jobs. On an a-priori basis, highly repetitious jobs would be expected to be uninteresting. **Length of Shortest Work Cycle** (J3) was a convenient index of repetitiousness of the job. Similarly, those jobs requiring a high degree of mental attention were thought likely to be more interesting than those requiring little attention: thus the construction of the **Attention Requirement** index in J2.

**J1 - Observed Communication Rate:** All jobs were observed for periods of approximately 20 minutes to determine the percentage of time which employees spent communicating. Coffee breaks and lunch periods as well
as periods outside of regular working time were excluded. As observer, I stood somewhere where I could get a good view of the particular working position being studied and, over a 20 minute period (timed with an ordinary pocket watch) timed the total of all communicative acts entered into during this time with a stop watch. The stop watch was started each time the subject began to communicate with anyone and was stopped whenever he ceased to communicate. All types of communication were included; in actuality probably more than 99% of the communication was verbal. Listening (receiving signals intentionally) as well as talking (sending signals) were counted. Thus if several people were standing in a group listening to one talk, all were considered to be communicating. In order to be as inconspicuous as possible, the stop watch was kept in the pocket except when reading it. However, if employees noticed that I was timing, no attempt was made to deny this; if they asked, I explained to them exactly what I was doing and why. In most cases, my presence seemed to have little effect on employee behaviour. In the few cases where it seemed to have some effect (a dampening one) observations were repeated later. Results were expressed as a percentage of prescribed working time spent communicating. For analysis, the following categories were used: 0% - 1%; 2% - 6%; 7% - 12%; 13% - 17%; 18% & up. If more than one work position for a given job, an average was taken.

J2 - Attention Requirements: The attention requirements for all jobs were rated on a 10 point scale illustrated below:
<table>
<thead>
<tr>
<th>Attention Level</th>
<th>Description</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>10.00</td>
<td>Total Attention</td>
<td></td>
</tr>
<tr>
<td>8.75</td>
<td>Concentrated Attention (Examples: Engineer, Architect designing structures)</td>
<td></td>
</tr>
<tr>
<td>7.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6.25</td>
<td>Detailed Attention (Example: Auto Mechanic doing major engine repairs)</td>
<td></td>
</tr>
<tr>
<td>5.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.75</td>
<td>Surface Attention (Example: Grocery Store Clerk Marking prices on tins)</td>
<td></td>
</tr>
<tr>
<td>2.50</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.25</td>
<td>Low Attention (Example: Man shoveling coal from pile into truck)</td>
<td></td>
</tr>
<tr>
<td>0.00</td>
<td>No Attention</td>
<td></td>
</tr>
</tbody>
</table>

Jobs were rated on the basis of my own subjective judgement as to the attention requirements for a man with several weeks experience on the job. For analysis, the following categories were used: Low (0 - 2.5); Surface (2.6 - 5.0); Detailed (5.1 - 7.5); Concentrated (7.6 - 10.0).

In rating the attention requirement for a given job, only the times when the incumbent was actually performing work were actually considered. Leisure periods were not considered unless the leisure was actually an essential part of the job. To illustrate, the Dryer Operator spent considerable time chatting socially with various employees and at such times the attention required of him by his job was near zero. However, when the Dryers required maintenance or repairs he was primarily responsible for them and attention requirements were around 7. When co-ordinating movement of material in and out of the dryer area, attention requirements were around 6. Since the latter two functions were essential parts of his job while the former was an unintended fringe benefit, his attention requirements were rated 6.3.
J3 - Shortest Work Cycle Length: Length of regularly repeated movements (work cycles) were measured for all jobs with a stop watch. As was the case with timing of communication, the stop-watch was kept in the pocket to make the operation as unobtrusive as possible. In general any pattern of behavior which was an essential part of the job and was repeated regularly was considered to be a work cycle. When no such patterns were discernable (as in the case of electricians and millwrights), the work cycle length was taken as one day of 8 hours. Although measurements were taken of both major and minor cycles, only the shortest cycle applying to each job was used in the analysis since this seemed most promising. For analytical purposes, work cycle lengths were divided into the following 5 categories: 0" - 1'; 1'1" - 5'; 5'1" - 20'; 20'1" - 1 hour; Over 1 hour.

J4 - Rest Period Rate: The amount of leisure time connected with each job was measured with a stop watch. Measurements were made similarly to the communication time measurements over an average 15 minute period for each job. Leisure or rest time was defined as any period from 1" up in length when the employee was not required to perform any physical movements or exert any physical strength and when his attention could at the same time be almost entirely diverted away from his work. Identifying leisure was a fairly simple task in the more menial and routine jobs. In the case of tradesmen such as millwrights, machinists and electricians it was almost impossible. Although these employees rated very low on leisure, I was left with the suspicion that they might have become quite adept at disguising leisure as work for management's benefit. It appeared that only machine operators who were either ahead of their machines or victims of production interruptions not caused by themselves
were legitimately entitled to rest periods. Others were expected to work their entire 8 hour shift except for scheduled lunch and coffee breaks.

Results of the measurements were expressed as the percentage of working time spent resting. For analytical purposes, rest period rates were categorized as follows: 0% - 2%; 3% - 5%; 6% - 12%; 13% - 25%; 26% and over.

J5 - Work Pressure (Estimated Man Minutes Lost in a 15 Minute Break): An attempt was made to operationalize and measure "work pressure" which was alleged by management and union personnel alike to be associated with grievances. The measure used was the estimated number of man minutes lost if the incumbent of each work position alone took a 15 minute break. It was felt that this would be a crude index of the pressure which management would bring to bear to keep each particular job operating.

To illustrate, if one of the 6 dryer grader & off-bearers stopped working for 15 minutes time lost would be as follows: 15 man minutes for the dryer grader & off-bearer himself plus 7 minutes for dryer feeders. There are two dryers, each with 3 dryer grader off-bearers. One dryer has two feeders and the other has one feeder. If the grader offbearer stopped on the dryer with one feeder, the feeder would have to slow down to $\frac{2}{3}$ pace: therefore 5 man minutes would be lost. Were the idle grader off-bearer on the dryer with 2 feeders, both of them would have to slow down to $\frac{2}{3}$ pace and 10 man minutes would be lost. The average of these two situations is $\frac{7}{2}$ man minutes lost for other employees or, rounded off, 7 minutes. Therefore, the result of one dryer grader and off-bearer taking a 15 minute break is 15 plus 7 = 21 man minutes lost. For analytical purposes, the following categories of
number of man minutes lost on account of a 15 minute break were used:
15 - 29; 30 - 44; 45 - 59; 60 - 74; 75 & up.

J7 - Pay: (See Pl - Pay) The same categories were used as for Pl. The pay rates used were those in effect in December 1963. In the case of discontinued jobs, pay grades (not rates) in effect when the job was discontinued were used.

J8 - Mean Seniority for Job: The arithmetic mean seniority for each job was calculated by dividing the sum of the years service of incumbents in each job in December 1963 by the number of incumbents in each job. For analytical purposes four categories were used: 0 - 2.4; 2.5 - 4.9; 5.0 - 7.4; 7.5 - 9.9.

J9 - Seniority relative to Seniority-Pay Regression Line: As a measure of Job Satisfaction, the Seniority Value of each job relative to the Seniority-Pay Regression Line was calculated. Regression Lines were determined by the least squares method.

Since, except for the skilled trades, seniority is almost the sole criterion for promotion to better paying or otherwise more desirable jobs within the ranks, a high positive correlation between seniority and pay was to be expected. Because Martin was a relatively young plant there were more maximum seniority persons available than high paying jobs. Figure 10a illustrates how the Pay-Seniority Regression line levels off sharply at about $2.38 hourly and 8.7 years seniority. (Tradesmen of a skilled nature - Electricians, Machinists, Millwrights, 3rd & 4th class engineers - were excluded from the calculations.) The horizontal regression line at 8.7 years is a close approximation of the line calculated by the least squares method which had a slight negative slope. (Seniority in years = 9.27 - .23 x pay in $)
Similarly, since a man with high seniority could bid for a higher paying job than a man with low seniority, it stood to reason that those jobs for which the mean seniority was less than the figure intersected by the regression line were considered by employees to be unsatisfactory. Presumably the pay was not sufficient to counterbalance undesirable factors associated with job performance.

Thus the mean seniority of a job relative to the Seniority-Pay Regression Line is a measure of how satisfactory employees find the job. Jobs with low mean relative seniority are considered to be unsatisfactory. Jobs with high mean relative seniority are considered to be satisfactory. Or, put another way, the non-monetary attractions of a low mean relative seniority job are considered by the employees collectively to have little value. The non-monetary attractions of a high mean relative seniority job are considered to be valuable by the employees. They demonstrate their assessments of the value of different jobs by bidding their one valuable scarce resource (seniority) for them.²

For analytical purposes, Mean Seniority relative to the Seniority-Pay Regression Line was divided into 4 categories: -2.5 to -1.0; -0.9 to +0.9; +1.0 to +2.5; +2.6 & over. (units are in years)

J10 - NTL Accident Frequency Per Man Per Month for Job: Taking into consideration the number of No Time Loss accidents (NTL) between Jan. 1959 and August 1963, the number of months each job had been in existence and the number of men from time to time employed on each job, the Number of NTL accidents per man per month was calculated for each job. For analytical purposes these frequencies were divided into the following four categories: 0 - .01; .02 - .03; .04 - .05; .06 & over.
J11 - Days Time Loss (TL) On account of Accident Per Man Per Month for Job: Taking into consideration the number of days lost on account of accidents between Jan. 1959 and Aug. 1963, the number of months each job had been in existence, and the number of men from time to time employed on each job, the number of days time lost per man per month on account of accidents occurring at work was calculated for each job. For analytical purposes these rates were divided into the following 4 categories: 0; .01-.09; .11- .24; .25 & over.

J12 - Recorded Grievance by Man from Job: Taking into consideration the jobs held by employees at the time of presenting specific personal or group grievances (see P22), the titles of the jobs from which employees had presented grievances from Nov. 1959 to Nov. 1963 were noted. Because of the small number of grievances pressed, no attempt was made to subdivide on the basis of rates of presentation of grievances.

J13 - Evaluation Request by Employee from Job: The titles of the jobs from which employees had made job evaluation requests since inception of the Job Evaluation Programme in 1959 were noted. (See P21) Because of the small number of job evaluation requests made, no attempt was made to subdivide on the basis of rate of making requests.

J15 - Frequency of Election to Safety Committee Per Man Per Year for Job: Taking into consideration the number of men elected to the Safety Committee from each job from 1955 to 1964, the number of years each job had been in existence, and the number of men from time to time employed on each job, the number of terms served on the Safety Committee per man per year was calculated for each job. For analytical purposes these rates were divided into the following 3 categories: 0 - .09; .10 - .19; .20 & over.

J20 - Frequency of Election to Plant Committee or Plant Chairman Per Man Per Year for Job: Taking into consideration the number of men elected to the Plant Committee or to the position of Plant Chairman from each job from 1955 to 1964, the number of years each job had been in existence, and the number
of men from time to time employed on each job, the number of terms served on the Plant Committee or as Plant Chairman per man per year was calculated for each job. For analytical purposes these rates were divided into the following 3 categories: 0 -.09; .10 -.19; .20 & over.

These measures of behaviour related to job were constructed with the end in view of separating behavioural determinants attached to jobs from those attached to individual employees. It was thus possible to ask two distinctly different questions about each type of behavior: (a) Do certain individuals with certain personal characteristics tend to engage in this behavior more than others? (b) Do certain jobs with certain characteristics tend to be associated with this type of behaviour more than other jobs?

J21 - Noise (watch distance): Crude measurements of noise levels were taken at a number of points within the Martin Plant as indicated by the red numerals in figures 13a and 13b. An ordinary Pocket Ben watch and a pocket rule calibrated in decimals of a foot were used as measuring instruments. The pocket watch was held at the ear and slowly moved away until it was just no longer possible to hear it ticking. The distance from the ear to the pocket watch was then measured with the rule. The red numerals in figures 14a and 14b are the distances in feet at which it was just possible to hear the watch ticking. Thus, the quieter the surroundings, the larger the numerical index of noise.

For most analytical purposes, the raw readings were categorized as follows: 0.0'; 0.1'; 0.2' & over. Figures arrived at for the individual job positions were obtained by locating the normal or modal position of the operator concerned and then interpolating between the nearest points at which noise levels had been measured. Modal positions used are also indicated on figures 14a and 14b. With a few employees such as electricians and oilers the modal position is not very reliable since they moved more or less continuously throughout the entire plant.
E1 - Total Grievances: (See P22) From the grievance records compiled, a count was made of the total number of grievances discussed each quarter at Union-Company Plant Committee Meetings from November 1959 to October 1963. For the purposes of this tabulation a grievance was considered to be any distinct item brought up for discussion in these meetings by either party.

E2 - Seniority, Posting, Etc. Grievances: From the grievance records (See P22) a count was made of the total number of grievances dealing with seniority, job posting, job assignment, job training, call time, overtime, working foremen, layoffs and closely related matters. Each distinct item under these general topic headings brought up for discussion at Union-Company Plant Committee Meetings was counted as a unit.

E3 - Average Quarterly Price of Plywood: From company records, the average quarterly price per thousand 3/8" square feet of plywood sold was calculated.

C1 - $\sum_{D}^{N} \frac{1}{D}$: Utilizing the normal or modal working position of each operator (see J21 and figures 15a and 15b) the distance was scaled off from each operator to all other employees with whom he simultaneously or in direct sequence shared responsibility for a work piece. Distances were taken in feet. $1$ was then divided by each of these distances and the quotients added to produce a $\sum_{D}^{N}$ figure for each work position. (Because of difficulties of establishing modal work positions and relationships with other workers, Millwrights, Machinists, Electricians and Oilers were excluded.)

For example, if a worker were 10 feet from one worker with whom he shared responsibility and 20 feet from another, we would take

$$\sum_{D}^{N} = \frac{1}{10} + \frac{1}{20} = .15.$$
The quantity \( \sum \frac{N_i}{D} \) was developed as a means of usefully and conveniently handling distances between workers as a function of amount of communication when only the total communication for each worker (rather than the amount carried on with each of several different workers) was known.

The Analytical Methods

The analytical methods used were dictated, more or less in order of importance, by three considerations: 1. The desire to simultaneously develop and test hypotheses. 2. The present relatively primitive state of knowledge of the dynamics of grievance processes. 3. The data which was available.

The 3 major pioneering studies into grievance processes, cited in the introduction to this paper, provided some guidelines. Dubin's macro-analytic study provided some systematic statistical evidence. Both Sayles and Kuhn provided a great deal of impressionistic evidence but hardly any systematic statistical evidence against which hypotheses could be evaluated.

Thus, my own study became of necessity an exploratory study, seeking out the dynamics of grievance processes on the micro-analytic level. Earlier grievance studies as well as empirical work of a more general nature provided useful clues as to what sort of factors might be important. But they did not enable one to submit a number of prepared and rigorously defined hypotheses to the test.

Instead a number of variables which: (a) were thought likely to be of some significance in the grievance process, and (b) about which raw data could be made available, were compared with one another. In each case two questions were asked: (1) Is there a significant linkage between two or more variables? (2) How are these variables associated?
To be more concrete, 50 odd variables most of which were defined above, were put into operational form and measurements made. In certain cases (for example communication and work position) I had some fairly well developed ideas of the manner in which factors combined. Here it was possible to put together a moderately sophisticated hypothesis and subject it directly to statistical test. (Never mind for the moment that many of these "fairly well developed" ideas had to be severely modified in the light of the findings.) In other cases I could only begin by saying, "This might be important; is it?" In these cases variables were compared one against another in a search for significant relationships. When patterns began to emerge, new breakdowns and new comparisons were made in an attempt to obtain further elucidation.

This sort of analytical approach has been derided by some social scientists who have dubbed it the "shotgun" approach. They have pointed out that, where a number of comparisons are made and, say a 90% significance level used as the accept-reject threshold, by chance alone 1 out of 10 comparisons could be expected to yield a $X^2$ significant at the 90% level. Thus, they say, what has occurred by chance alone stands in danger of being accepted as of theoretical significance.

The criticism is a valid one provided one naively and automatically chalks up each "statistically significant" finding as "theoretically significant". However, the danger can be largely alleviated if one critically views every statistically significant finding and asks certain further questions. For instance, "Do other variables which are related to the independent variable show similar associations with the dependent variable?" And, "Can any sort of theoretical or rational justification for the statistically significant association between variables be found which ties in with other empirically established findings?" And, "If the
independent variable is associated with this dependent variable, it should also be associated with certain other related dependent variables; is it?"

If two or more of these questions can be answered in the affirmative then we have a fairly strong case for at least tentatively accepting the finding. If one or none can be answered affirmatively then we should have strong reservations about accepting the finding, high significance level notwithstanding.

By and large, this is the procedure that has been adopted for this study. Where isolated "statistically significant" associations were found they were filed away in a "doubtful" mental pigeon-hole pending the arrival of supporting evidence.

Another procedure utilized in this study may also require some justification. This is the frequent use of associations with low significance levels in support of various propositions.

Logically, this process grows out of the procedure cited above, of which it is the obverse. That is to say, when a number of related independent variables are found to have a uni-directional association with the same dependent variable but at relatively low significance levels (say, less than 90%), a case can still be made for accepting the findings. Thus, if A, B, and C are very closely related variables and all are found to be associated with D at significance levels ranging from 30% to 85%, we are fairly safe in saying that the association found is not a random one.

Although there are, perhaps 4 chances out of 10 that any one of the associations could have occurred by chance, there is much less possibility (something like 8 in 100) that all 3 associations occurred by chance.
The same may be said of the situation where one independent variable is found to be associated with several closely related dependent variables but at low significance levels.

Adopting some such expedient is necessary in a study such as this involving a limited number of cases to avoid severe wastage of data. A number of trends of potential importance would have had to be completely ignored had some arbitrary significance level of, say, 90% or 95% been utilized as an absolute threshold below which results would be summarily dismissed. Mathematics and statistics are tools which deserve to be bent to fit the task rather than the reverse. Scientific knowledge is, or ought to be, considered tentative subject to further investigation in any case. Even with all associations significant at the 99.9% level, we can, strictly speaking, only make assertions about the particular group studied at some particular time and place. But, if science is to be useful, we have to be practical enough to assume some generality of our findings subject, always, to the possibility of the appearance of contradictory evidence. Flexible interpretations are, it seems to me, as useful and proper when concerned with statistics as when concerned with generalization between groups.

There are, of course, two seemingly innocent manipulations available for increasing statistical significance which, if used incautiously, might be considered "cooking the books". One of these is to increase the number of cases, a sure fire technique for making the smallest difference statistically significant. It may not even be necessary to consider new evidence. For instance, many of my job characteristics were actually averages arrived at by considering the properties of several job incumbents. However, since they were categorized by jobs, significance levels were determined on the basis of number of jobs
rather than number of job incumbents. Merely by changing the base so that a case was one job incumbent rather than one job, significance levels could have been raised. While this would have been an interesting exercise, it is questionable whether it would have had any scientific value whatsoever.

The other manipulation is simply to recombine classes so as to get a smaller number of categories. Its use simply to raise significance levels is highly questionable. It may be legitimate when used to check statistical significance of the distribution of a variable around a threshold which has some theoretical rationale. Even here it has to be viewed cautiously.

The point of the foregoing is that significance levels depend partially on rather arbitrary decisions about size of sample and number of classes. This being true, when size of sample is small and/or number of classes large it makes good common and scientific sense to consider, albeit cautiously, associations with low significance levels.

Unfortunately $X^2$ tables are not intended for such flexible use. Those available had, in the intermediate range, gaps of 20 significance level points prevailing. Since time did not permit the many interpolations necessary to arrive at precise significance levels, an expedient had to be adopted for this study. Therefore, whenever significance levels in the intermediate range cited in this study fall between tabular values, they have been roughly but always conservatively interpolated. In other words, in case of doubt a slightly lower significance level is given than might actually have been arrived at had precise interpolation been carried out. While this slightly biases the results, it biases them consistently in what is, I think, the right direction; that is to say, they are biased slightly in the direction of not accepting doubtful associations.
Syntax regarding confidence levels is not always clear. In order to avoid any confusion I shall spell out here just what I mean when confidence levels are given. Throughout this paper when confidence levels are cited they always indicate the number of chances out of 100 that the association found is not due to chance. Thus (see figure la) union office holders were found to have a greater tendency than non-office holders to make job evaluation requests. The results were significant at the 94½% level. In other words, there are 94 chances out of 100 that a difference as great as that found did not occur by chance alone.
CHAPTER IV
RESEARCH FINDINGS

The results of the empirical observations undertaken at the Martin Plant and analysis of the data are outlined below:

1. **Magnitude of Work Stoppages and Grievance Processes:**

   In proportion to the total amount of work performed, grievances bear much the same relationship to the entire industrial plant that the traditional "1/10 of 1% Benzoate of Soda added as a preservative" does to a tin of blackberry jam. A relatively very small number of man hours are lost through "wildcat" work stoppages or used up in the grievance handling process.

   From the time it commenced operation in 1955 until November 1963 there were a grand total of 2 unauthorized shutdowns at the Martin Plant, one of which lasted about 11 hours and the other about 8. This represents approximately 1/10 of 1% of the total man hours worked during this period. Although there was some aggravation from both sides in each case, the first seems to have been rather directly precipitated by the Union Plant Chairman and the second by the Plant Superintendent.

   In the first instance, employees walked off when the Plant Chairman was "fired" for refusing, as a Fork Lift Truck Operator, to obey an order to commence checking the water and oil before starting each shift. This was a job formerly done by maintenance personnel. Ultimately the offending Plant Chairman was suspended for a week and he and the other Fork Lift Truck Operators thereafter checked water and oil as instructed.

   In the second instance, management said they wanted to work overtime on a weekend at a time when the mill had been on short work weeks for some time and had laid off several employees due to lack of work.
The Union Committee said that they would not permit overtime when so many of their members were out of work. Management said that they were going to run the overtime anyway. The Union Committee indicated that, if this were to be so then they wanted to have a meeting with the afternoon shift before it started work. Union officials did just this, keeping the afternoon shift in the lunchroom past their normal starting time. At this, the Plant Superintendent shut down the mill and told the men to go home; in the eyes of the Union, this was a "lockout". In this case the union apparently "won" its point since the intended weekend overtime was not worked and no more was heard of the incident.

While it is not possible to obtain quite such close figures on the amount of time taken up handling grievances, this is also a very small amount. Allowing for 6 - 8 meetings of the Union Committee with management each year and for a certain amount of informal grievance handling by the 6 Union Committee members, the Plant Chairman, and the Job Stewards, something like 1/10 of 1/2 of the total man hours worked in the Martin Plant is devoted to grievance handling.

Table 1. shows that 2/3 of the grievances at Martin are concerned with Seniority, Job Posting, Job Security, etc. and that about 9/10 of them are initiated by the Union. It also indicates that around 1/2 of the "issue" grievances are resolved largely in the Union's favour, about 1/5 in the company's favour and the remainder by roughly equal compromise.

2. Union Office, Grievances, Job Evaluation Requests:

As indicated in Chapter II, pay grievances at Martin are handled by a specially set up industry wide Job Evaluation Programme while all other grievances are handled by Job Stewards, Plant Chairman, or the Plant Committee in conjunction with the Foreman, Personnel Manager, or the
Plant Superintendent. This, however, does not seem to prevent there being some relationship between them. Figures 1c and 1d show that those persons who press grievances are much more likely to make job evaluation requests than those who do not, and vice versa. In both cases, the differences are significant beyond the 99.9% level.

As indicated in figures 1a and 1b, there is a stronger tendency for employees who have at some time or another held some union office to engage in both making job evaluation requests and in pressing specific personal or group grievances, than for non-office holders. These differences are significant at the 94% and 95% levels respectively. This is not to say that Union Office Holders made most of the Job Evaluation Requests or Grievances. Indeed, Non-Officeholders made 61% of the Job Evaluation Requests and 60% of the Specific Personal or Group Grievances. It is simply that employees who sooner or later became union officers were more active in proportion to their numbers in making evaluation requests and pressing grievances.

3. Seniority

Figures 2b, 2c, 2d, 2e, 2f and 2g show that activity as Plant Chairman, on the Plant Committee, on the Safety Committee, or as a Job Steward as well as making job evaluation requests and pressing specific grievances increases with increasing seniority. This finding concurs with earlier research by others. It is noteworthy that the greatest difference in all of these activities occurs between those hired in 1956-57 and those hired in 1954-55.

Since we are simply classifying employees by whether they did, or did not, take part in any of these activities, one might suggest that by the operation of the laws of chance alone senior employees could be
expected to have been involved in greater numbers. This is a valid objection, but one that can be dealt with. First, the mere fact of the consistent jump between the oldest (1954-55) and next oldest (1956-57) indicates that something besides chance is operating.

However, the best way to deal with this criticism is to control the length of tenure factor. This is done, in the case of terms of union office served, by expressing service for each employee as the number of terms of union office held per year of service. Figure 2h shows that even when expressed this way, union political activity still increases with seniority. Here, too, we notice that there is much more activity by the very senior employees; in particular only amongst those hired in 1954-55 has any appreciable proportion of the employees served .76 or more terms in some union office per year of employment. Unfortunately there were too few cases to permit similar handling of job evaluation requests and grievances.

Why this much greater amount of political and grievance activity on the part of the most senior employees? The answer is probably a structural one. The Martin Plant, as you will recall, is a young one which began operating in 1955. Presumably in any institution there are a limited number of services which can be rendered to employees. Certainly this is true of the Plant Chairman, Plant Committee and Safety Committee positions at Martin where the number available is rigidly controlled by tradition. While there seem to be no formal restrictions on the number of job stewards, there may be informal ones; clearly not everyone can be a Job Steward, otherwise there would be nothing for Job Stewards to do. Inspection of figures 2c, 2d and 2e shows that in the case of Job Stewards where no formal restrictions prevail there is a smaller difference between the most senior and the next most senior employee groups.
Since there are limited number of openings available, those first on the scene, (the 1954-55 group) fill them. Those arriving later can remove them only if they can make a plausible case for doing a better job themselves. Therefore, only when they succeed in doing this or when the incumbents step down voluntarily do they occupy official positions.

Most likely something similar operates in the case of making job evaluation requests and pressing grievances. To be sure, some grievances involve one person only and, although most positions have 2 or more incumbents, there is nothing to prevent one person from making a job evaluation request without consulting anyone else. However, in practice these activities are probably usually co-operative ones. Many grievances involve several people; probably most often a group of employees working together. Even in the case of a solitary grievance, if it is to be taken up by the Plant Committee and pushed, some support will have to be obtained from other employees. It is much easier for management to turn down an unpopular, than a popular grievance.

Similarly, the Plant Job Evaluation Committee has the power to turn down at the start a request for evaluation. Getting some support by other employees is probably the best way to prevent this.

Thus grievances and job evaluation requests are likely to become social products before any formal action is taken on them. Who, then, is going to present the case to the higher union officials so that it can be discussed with management? If the settlement of the grievance or the rate decided upon mean anything at all it would seem only natural to choose the man who has done, or seen this done, before and who has considerable knowledge of this job, other jobs in the plant, prevailing practices, attitudes, etc.; in short, the senior man. This is not to say that seniority is the only consideration the group will have when
selecting someone to take up a grievance or make a job evaluation request, but there are good reasons why it should be one of them. (In a questionnaire distributed at Martin for another purpose, some employees with 1 - 3 years experience wrote that they felt incapable of even judging the adequacy of their own pay rates because of insufficiently broad experience within the plant.)

Once a senior man has actually taken up a case (not merely observed it), he is head and shoulders above the others in terms of experience relevant for this task. Thus his role of griever or job evaluation requester may become a self perpetuating one. Similarly a man who has served in any official union position may be considered particularly well qualified by his fellows to present grievances and make job evaluation requests. Thus seniority, which directly serves to increase the incidence of service in some union office, may indirectly serve to increase the incidence of grieving or making evaluation requests.

We have already suggested that as seniority increases, knowledge of the institutional setting relevant to grievance presentation and making job evaluation requests may accumulate. There is probably also a related prestige value which increases with seniority. Thus, even though having had no previous grievance or office experience, one might expect the senior man to be more esteemed by his fellows than juniors and more often chosen for office.

It is interesting to note, in ending our consideration of seniority, that a similar situation seems to prevail in the case of selection of employees for promotion to foreman. Figure 2a shows that only those employees hired in 1954-55 (and of this group 9.5%) were promoted to foreman. Differences between seniority levels were significant at the 99% level.
4. Birth Date:

Sayles finds that men in the younger age groups and older age groups participate less in grievance activity than those in the middle. It was, therefore, expected that a similar pattern would prevail among employees at the Martin Plant. A check of all employees at Martin seemed to reveal precisely this pattern. (See figure 3a, "all employees" bars.) However, since seniority had already been established as an important determinant of political, grievance and related activity, it seemed necessary to take the analysis one step further and control for this important variable. You will note from the "hired 1954-55" bars in figure 3a, that, when seniority is constant, union political activity appears to vary inversely with age, the oldest employees being the least active and the youngest being the most active. Unfortunately the 1954-55 group was small enough that this age-activity pattern was significant only at the 50% level.

However, with some fluctuation, the same inverse relationship between age and union political prevails when offices are broken down into the component groups of Job Stewards, Safety Committee members, Plant Committee members - Plant Chairmen. (See figure 3b, 3c & 3d). In the case of Plant Committeeen-Plant Chairmen the second youngest age group is somewhat more active than the youngest, perhaps because this is the highest ranking in-plant union authority, a position which demands the greater prestige and savoir-faire of older men. In all three cases, of course, significance levels are low and the relationship found must be treated with some caution. Age seems to have very little effect on the making of job evaluation requests (see figure 3e) and appears to revert to the pattern found by Sayles in the case of pressing specific grievances (see figure 3f).
Having presented these somewhat contradictory findings regarding the relationship between age and grievance activity, just what can we make of them? In view of the relatively low significance levels obtained it would be judicious to suggest that the earlier findings have been disproven. In any case one portion of our evidence (pressing specific grievances) and possibly two (Plant Chairman-Plant Committees) seem to more or less conform to Sayles findings.

What we can say with considerable certainty is that further investigation of the relationship between age and grievance activity is needed in order to settle the matter and that such investigations must rigidly control for seniority.

Reverting momentarily to speculation, the consistent inverse relationship between age and grievance activity would seem to be the more plausible one. Young men have more physical and mental energy, they are likely to have more pent up aggression and are less likely to have yet found suitable activities in which to discharge it. Thus, given the structural requirement for grievance activity and union political activity (seniority) they can be expected to engage more in these activities than their older co-workers with similar structural qualifications because of greater motivation. The next older age group will have larger families which require more attention and may well have found outlets for their internal drives in church groups, lodges, veterans organizations and other outside activities.

5. Birthplace:

The data suggest that persons born in non-English speaking countries are substantially less likely to engage in union political activities than those born in the U.S., U.K., or Canada. (See figures 3.5a, 3.5b,
and 3.5c.) However, here too, seniority complicates the picture. The Birthplace-Seniority frequency distribution showed that the non-English speaking nationalities commenced their employment at Martin quite a bit later than the English speaking ones. As indicated earlier in the discussion of seniority, this in itself would decrease their chances of having engaged in union political activity.

Figures 3.5a, 3.5b and 3.5c show that the same tendency for reduced activity by those born in non-English speaking countries persists even when seniority is equated. Unfortunately, the numbers are considerably smaller in the 1954-55 group used to control seniority and the nationality difference is significant only at the 70% level in the case of Job Stewards, 60% level for Safety Committee and 30% for Plant Committee-Plant Chairman.

Because the difference is a consistent one we can probably justifiably conclude that nationality does, in fact, decrease political activity. However, birthplace did not seem to make any difference in the tendency of employees to make job evaluation requests or to press specific grievances. This, in turn, would seem to indicate that the explanation is rooted in institutional politics rather than in personality differences related to nationality. In other words, those of obviously foreign birth are probably less acceptable as formal leaders to their largely English speaking constituents than those who sound like natives. Because union office is largely elective, such sentiments on the part of employees can readily be expressed through the ballot box. It is noteworthy that many more employees of foreign birth succeeded in becoming Job Stewards than in serving on the Safety Committee, Plant Committee or as Plant Chairman: Job Stewards, as noted earlier, are sometimes elected and sometimes appointed simply because someone wants to be a
job steward. Presumably Job Evaluation Requests and Specific Grievances, in the formative stages are judged by fellow employees more on their intrinsic merits or tactical usefulness than on the nationality of those first raising them.

6. Education

Education also varied with seniority although differently from the other variables so far discussed. The distribution of educational levels was very similar for employees hired from 1954 through 1961. However, employees hired in 1962-63 had substantially more education. It is not clear whether this is due to a general tendency recently apparent for children to stay in school longer or whether many students just finished with school spent a couple of years working in the Martin Plant prior to embarking on higher education or other careers. In any case here, too, it was necessary to control for seniority. This was done in 2 ways: first by excluding employees hired in 1962-63; secondly by considering only those employees hired in 1954-55. Results of these two sub-analyses were similar although each illustrated certain tendencies better than the other.

Figures 4a, 4b, 4c, 4d and 4e indicate that employees with 6 years of formal education or less are much less likely to hold any of the various union offices and less likely to engage in grieving than employees with more than 6 years education. However, there did not seem to be any relationship between education and making job evaluation requests. While significance levels are in the 70%-80% range, the consistency of the results among these related variables should permit us to say with considerable certainty that low education is a barrier to holding union offices. With somewhat less certainty we can say that
it is also a barrier to grieving (the absence of a similar relation between job evaluation requests and education leaves this latter finding open to more doubt than the first.)

In the hope of determining whether grades of educational levels above 6 years made any difference, employees hired in 1954-55 (whom, you will remember were much more active than their juniors) were analyzed separately. Figures 4f, 4g, 4h, 4i and 4j show a fairly consistent direct relationship between education and service on Safety Committee, and Plant Committee-Plant Chairman although significance levels are very low; no consistent pattern appears between education and service as Job Steward, pressing grievances, and making job evaluation requests. While this would seem to suggest that education facilitates holding of elective union office, confidence levels are so low that we can only regard this data as illustrative of an interesting hypothesis rather than as support for it.

In summary, then, low education appears to be a very substantial barrier to participation in union politics; it is also probably a barrier to grievance action. High education may be associated with greater participation in union politics, but at the moment this can be regarded as little more than an unsubstantiated hypothesis suggested by the data.

Why, we might ask, should education be associated in this way with union political and grievance activity? Probably it operates in at least two ways: Firstly, those with 6 years or less or formal education are apt to be very seriously handicapped in matters which most of us take for granted, such as reading and writing. It will likely be very difficult for them to read the collective agreement which governs relations with their employer and to exhibit competence in interpreting
it. Secondly there may well be some residual prestige value associated with the ownership of a high school education in a group where the average is about grade 8. This would be an asset politically when nominations and elections are being held.

7. Pay:

Sayles states that workers in the middle pay ranges are more active in concerted activity than those in the upper or lower extremes. It was expected that a similar pattern would prevail at Martin.

Figures 5a, 5b, and 5c indicate that this is true of holding union office, pressing grievances and making job evaluation requests when seniority is not taken into account. In all cases significance levels are at 99% or greater. However, one would expect that senior employees would hold the better paying jobs and one must therefore ask whether the same relationship holds when the influence of seniority is removed. Figures 5a, 5b and 5c (hired 1954-55 bars) would seem to support the hypothesis as regards union political activity; however, the tendency is much less strong in the absence of influence from seniority; the confidence level is greatly reduced to 40%, low enough that the finding must be viewed with a great deal of caution. As regards grievances and making job evaluation requests, the evidence suggests that there may be little or no association between pay rates and these activities.

Unfortunately the data regarding pay rates do not do very much to settle the question of the influence of pay rates on grievance and political activity. What they do, instead, is to re-open the question for further investigation. They also indicate that in future investigations seniority certainly, and perhaps other factors, must be controlled so that the influence of pay rates can be analyzed in isolation from other factors.
We have so far considered Seniority, Age, Birthplace, Education, and Pay, the five status indicators which were also to be combined to construct the measure called "status inconsistency". We shall hold off our consideration of status inconsistency until later.

However, a general tendency has appeared of which we should take note at this stage. Each of the status indicators, except age, has been positively correlated with union political activity. That is, the higher the rank of an individual as regards Seniority, Birthplace, Education, and Pay, the greater the likelihood of his having engaged in union political activity. It would seem that, as a general thing those possessed of high status are more likely to serve as politicians than those of low status. The fact that this tendency is much less clear cut as regards grievances (where the actor is more likely to be self chosen) would suggest that prestige associated with high status is the governing factor. Apparently those with high prestige are most likely to be chosen to represent their peers in dealings with management.

8. Absenteeism, Disciplinary Action, Debt Collection Attempts:

There are many suggestions in the literature that absenteeism is an indication of job dissatisfaction; usually the implication seems to be that employees working at unsatisfactory jobs (particularly those not allowing for personal involvement and social discourse) tend to absent themselves without "valid" excuse. It therefore seemed likely that there would be some sort of association between absenteeism and grievance activity and also, perhaps, disciplinary action and debt collection attempts.

Figures 6a, 6b and 6c show that employees cited for absenteeism, or
against whom disciplinary action or debt collection action was taken tended to be more active in union office-holding than other employees. Because tenure served to increase the chances of both occurring, a separate analysis was done for employees hired in 1954-55. Although confidence levels were reduced to the 30% - 80% level the same association was consistently apparent. Absenteeism, disciplinary action and debt collection action were also found to be associated with pressing specific grievances and making job evaluation requests in similar frequency distributions and with around the same degrees of confidence.

The data seem to establish with little room for doubt that employees afflicted by absenteeism, disciplinary action and debt collection attempts are more likely to hold union office and to engage in grievance activity. We are now, therefore, faced with the problem of suggesting an explanation for this association.

Unfortunately, the form of the data prevented analyzing absenteeism, disciplinary action and debt collection by work position and so it is not possible to say what influence job situational factors may have. However it appeared that employees very often repeated these afflictions over quite considerable periods of time during which they held several different jobs; this suggests that personality variables may be more influential than situational ones.

Union political activity, grievance activity, absenteeism, actions leading to disciplinary action and actions leading to debt collection attempts by creditors all have one thing in common. All are means of hurting a social group or institution which exerts considerable control over the individual without his being able to exert much control over it. They, in the eyes of the perpetrator of those deeds, to raise
his own status relative to that of the groups or institutions concerned. They are, in brief, ways of expressing aggression against social institutions: the company by which one is employed, and the finance company to which one is in hock. This is externally directed aggression. This would lead one to believe that employees indulging in these activities have relatively great needs for expressing aggression; put briefly, they have high aggression level personalities. It would also seem that these activities are, to some extent, functional equivalents.

The hypothesis about high aggression level personalities is a key one and more will be said about it in connection with other variables.

9. **Time Loss Accident Rates**:

Enough has been said in recent years about "accident prone" individuals to make accident records a factor to be investigated in any study of social relations where data regarding it is available. In order to eliminate the effects of seniority, in this analysis, accident rates were expressed in terms of the number of days lost on account of accident per month employed.

Figures 7a, 7b, 7c, 7d, 7e, and 7f show that employees with low time loss accident rates are less likely to hold any union office, to press specific grievances or to make job evaluation requests than employees with higher time loss accident rates. Significance levels range from 40% to 98%. Because the pattern is a consistent one throughout all these related variables, we can consider it to be fairly well established that susceptibility to time loss accidents, and union political and grievance activity go together.

What, then, is the meaning of this finding? I would suggest that it may be most adequately explained by extending further the high
aggression level personality hypothesis. Murder is a very strong way of expressing aggression against another; suicide may be seen as an equally strong way of expressing aggression against oneself. We have already suggested that absenteeism, actions leading to disciplinary action and debt collection attempts, holding union office and engaging in grievance activities are means of expressing aggression externally. Affliction with accident proneness may then be viewed as a means of expressing aggression inwardly against oneself. Just as absenteeism, etc. are mild ways of directing aggression externally, "accidentally" injuring oneself sufficiently to be unable to work for a time is a mild way of directing aggression internally. Presumably sustaining "accidental" injury is to some extent a functional equivalent for various ways of externally expressing aggression; all are activities which high aggression level personalities are more prone to emit than others.

10. Bowling and Softball:

Figures 3a and 3b indicate, at 90% - 99% confidence levels that employees who bowl on the company league or play softball on the company team hold some union office more often than their less sporting colleagues. Figures 3c and 3d show, at 70% - 90% confidence levels that employees who bowl are more likely to make job evaluation requests or to press specific personal or group grievances than other employees. Figure 8f shows that employees who play softball are more likely to press grievances than other employees. However, as indicated by figure 8e, there does not appear to be any relationship between softball and making job evaluation requests. In all cases effects of seniority are controlled either by expressing union office as a rate or by considering only those hired in 1954-55.
The evidence is strong enough that we can assert with a fairly high degree of confidence that those who engage in sports on teams composed mainly of fellow employees are more likely to engage in union political activity and in grievance activity than other employees.

Two possible explanations for this finding suggest themselves; it is not clear which operates or whether both do so simultaneously. The first is a further extension of the high aggression level personality hypothesis. Bowling and softball may be viewed as means of directing (perhaps displaced) aggression against inanimate objects: pins and balls respectively. In the latter there may also be an element of directing aggression against people as well, e.g. pitcher, fielder, etc. As such it may be a partial functional equivalent for absenteeism, disciplinary offenses, failing to pay debts, serving in union office, engaging in pressing grievances, and sustaining "accidental" injury to oneself. It is the sort of activity which high aggression level personalities are more likely to engage than other persons.

However, there may also (or instead) be political advantages to serving on these recreational teams. Particularly if one does well, an increase in prestige which is of political value may result. One who plays also gets an opportunity to get to know some of his fellow employees better, socially; many of them are also union political leaders and possibly opinion leaders. Thus they may spread goodwill among their personal followers towards the persona and ideas of their fellow bowlers and softball players.

Bowlers and softball players, incidentally, tend to be the same people. 32% of the bowlers play softball while only 3% of the entire employee group does; this difference is significant at the 99.9% level. 53% of the softball players also bowl as compared with 5% of the entire
11. Job Satisfaction: Seniority-Pay Regression Line, Relative Seniority

(See J9, Operational Definitions):

You will recall from the earlier discussion under Operational Definitions that jobs with low Relative Seniority are those considered unsatisfactory by the employee group as a whole while those with high Relative Seniority are considered satisfactory. Figures 10b, 10c and 10d would seem to indicate that low satisfaction jobs as identified by low Relative Seniority of job incumbents are those from which grievances and job evaluation requests are most likely to come while figure 10c contradicts this indication. Significance levels are high enough that the finding regarding grievances could, under ordinary circumstances, be accepted without a great deal of doubt. (Although there must be some reservations regarding the association between low relative seniority and high job evaluation request incidence.)

However, circumstances in this case are not entirely ordinary. An inspection of figure 10a, in which the scatter diagram of mean seniority of jobs is plotted along side the Seniority-Pay Regression line, indicates the existence of a non-random distribution. Pay rates in excess of $2.33 hourly all lie very close to the Seniority-Pay Regression line; in short, where the line flattens out, pay rates stick very close to it. This adhesion is probably due to the same factors causing the flattening out. Due to the newness of the plant there are many more high seniority employees than high paying jobs; at high seniority levels very small differences in seniority can make very large differences in pay rates and, indeed, other factors may be more influential in determining who gets what pay rate. This scarcity of high paying jobs relative to high
seniority causes them to be overvalued; that is to say scarcity causes unsatisfactory aspects of the job to be overlooked by the group as a whole although perhaps not by certain individual employees. It is, therefore, open to question whether the Relative Seniority of a job at these higher seniority levels is a reliable index of how satisfactory a job it is.

We cannot, then, really say that the data establishes the connection between low Relative Seniority jobs and high grievance and job evaluation request rates. We can only say that this is a plausible hypothesis which is suggested by the data.

However, let us for the time being ignore the doubts as to the validity of the association found. Let us tentatively accept the finding and inquire into the reasons for its existence. Let us ask what job situational factors lead to jobs being considered unsatisfactory as expressed through low Relative Seniority of job incumbents.

Figures 10f and 10g show that two factors contribute to Low Relative Seniority of jobs: low observed communication rates and short work cycle lengths. The findings are statistically significant at 95% and 90% levels respectively. Put in more general terms, those jobs in which employees are able to communicate with one another very little (1% of the time or less) seem to be considered by them as unsatisfactory jobs. Likewise, jobs which require cyclical movements repeated more often than once per minute tend to be rated by employees as unsatisfactory jobs.

To conclude this section on job satisfaction, let us summarize briefly. Rather shaky evidence here presented seems to suggest that jobs which are considered to be unsatisfactory by employees are likely to give rise to more grievances and job evaluation requests than jobs
which are considered to be satisfactory. There is no evidence to indicate that union office holding is in any way related to the satisfaction with which a job is regarded.

Jobs with very low communication possibilities and with very short work cycles tend to be considered unsatisfactory jobs by employees. While Relative Seniority appears to be a useful operational definition of the satisfaction with which a job is regarded by employees, its usefulness is limited in a plant such as Martin which has been in existence for only a few years; in such a plant there is likely to be a shortage of high paying jobs relative to the number of high seniority employees. This causes the shortcomings of jobs to be overlooked at the upper levels since so many employees with nearly equal seniority resources are bidding for the few available.

The validity of the hypotheses here presented might be readily established by conducting investigations in a plant which has been established long enough that there is more of a straight line distribution of seniority vs pay rates throughout the entire pay scale.

12. Communication Rates:

We have already indicated that low observed communication rates seem to be associated with jobs regarded as unsatisfactory. Figures 9a and 9b indicate that jobs in which very little communication is possible are unlikely to produce union office holders. While the confidence levels are somewhat lower than we should like, the consistency of the association in the two closely related variables will probably enable us to accept it with very little reserve. There was no evidence that communication rates were related to grievance rates or job evaluation requests. However, if the hypotheses suggested under 11. above are true, this would tend to disguise the effect.
Why should low communication be associated with a low incidence of union office holding? Probably simply because, in order to be an effective politician of any sort, one must communicate with one's constituents. Low communication jobs would restrict communication to coffee breaks and lunch breaks plus a few minutes before and after work.

It is also interesting to note that, although low communication rates tend to restrict union political activity, high communication rates above the 2% mark do not seem to increase union political activity. This suggests that a certain minimum of communication is necessary in order to participate effectively in union politics but that, once this threshold is reached, additional communication has no political value.

Considerable effort was put into an attempt to establish the situational conditions which determine the amount of communication taking place. An earlier study which I undertook indicated that: (a) The amount of communication varies inversely with the distance between workers; (b) Workers involved in performing sequentially related tasks tend to communicate more than those who are not.

From these beginnings, it was hoped to determine more precisely the relations between variables and to determine the influence of other variables. A multiple regression analysis was used for this purpose considering factors of (1) leisure time (2) distance (3) sequential relatedness (4) noise.

Although fairly careful measurements of noise were made, it was not possible to establish any clearcut relationship between the amount of noise prevailing and amount of communication. In my view this does not indicate that noise is not a factor. Rather, I feel that much
more careful measurement of noise must be made in order to show any relationship. In particular, it will probably be necessary to measure noise immediately adjacent to each of the work positions, i.e. right at each operator's ear. It will also be necessary to use measuring techniques which are sensitive to moderate differences at very high noise levels. The techniques used in this study were quite sensitive at moderate and low noise levels but insensitive at high levels.

Three factors were found to influence the rates of communication: Leisure, Distance and the Number of Sequentially Related Employees. (See Operation Definitions: J4 and Cl.) By the least squares method, a multiple linear regression line of the form: 

\[ \text{Time Spent Communicating} = .0012 + .23 (\text{Rest Period} \%) + .19 \sum \] 

was fitted to the array of observed communication rates. Since the constant .0012 is virtually zero it may, for practical purposes be ignored. The multiple correlation coefficient was \( r = .483 \), significant beyond the 99% level.

While this establishes without much doubt the positive correlation of the factors utilized with amount of communication, it does not show very satisfactorily the manner in which they interact. A correlation of .483 indicates that slightly less than 24% of the variation in the dependent variable is due to variations in the independent variables. Inspection of the calculated theoretical communication percentages based on the regression equation compared with the observed communication percentages for the various work positions was more striking evidence that relationships had not been established with great precision.
In fact this comparison suggests that leisure, number of sequentially related employees and distance do not bear a continuous straight line relationship to amount of communication. The following is presented as a working hypothesis to guide further research as to the way in which the situational determinants of communication interact.

Each individual has a given amount of communication which he feels he needs. This is determined by personality factors which we will not consider here and may be slightly modified by situational variables. In the main, however, the situational variables of leisure, distance, and number of sequentially related workers act as barriers.

For example a worker who has no leisure, is sequentially related to no one else and who is near no one else will not communicate at all regardless of the level of his need for communication. However if any one of these barriers is wholly or partially removed, his level of communication will increase until it is either blocked by the limitations imposed by the remaining barriers or until it has reached the level required by his needs. If his leisure increases he will travel as far as the leisure permits to find other workers to talk to.

If, instead, his distance to other workers is decreased, he will tend to talk more to some of them while he is working even though his leisure does not increase. If, instead, the number of related and/or close employees increases he will tend to talk more to one or more of them; the greater the number the greater the chances of one of them being able either while working or during leisure to move within speaking range or for other opportunities for communication. But if
more than one of these variables improves, the worker will only take advantage of the increased opportunities for communication up to the point at which his need for communication is satisfied. Because these factors work together to provide or restrict opportunities for communication, no set relationship can be established between any one of them and the amount of communication taking place. Rather, the ratio of each factor to each of the others will determine the amount of communication taking place subject, of course, to the need of the individual for communication. In order to properly determine the relationship of communication variables it will probably be necessary to have precise measurements and means of independently controlling all of the following: Amount of Communication, Amount of Leisure, Amount of Noise, Number of Related Employees and Distances to Each, Communication Need Levels for the Individuals Concerned.

13. Red Circle Rates November 9, 1959 (RCR):

   As indicated in Operational Definition P20, employees designated RCR November 9, 1959 are those who, at the initiation of the Job Evaluation Programme occupied jobs which were evaluated at rates lower than those existing previously. All of them were, at that time, either Sheet Turners or Core Feeders who, together with the core layers assembled veneer and core strips into sheets of plywood ready for welding in the hot press.

   Figures 11d and 11a show that these individuals, in the succeeding 4 years, made many more job evaluation requests than other employees and that they served more often as Job Stewards than other employees; differences are significant at 99% and 80% levels respectively. Figures 11b, 11c and 11e show that there were no
significant tendencies for them to serve on the Safety Committee, on the Plant Committee or as Plant Chairman, or to press specific grievances, more than other employees. Sixty per cent of the Job Evaluation Requests made by RCR November 9, 1959 employees were made for positions which they had held after leaving the Core Feeder or Sheet Turner Jobs.

These findings leave us with two questions to be answered. First, why do these individuals, unfavourably affected by this historical event, subsequently exhibit a greater propensity to become Job Stewards and to make Job Evaluation Requests than their colleagues? Second, why do they not exhibit a greater tendency to hold other union offices such as Safety Committee or Plant Committee-Plant Chairman and why do they not tend to press grievances more than other employees?

The High Aggression Level Personality Hypothesis, with some modification provides a rationale for part of this behaviour; supplementary explanations may be found by considering the political structure of the Martin Plant on the Union side.

The RCR November 9, 1959 employees were, in effect, told that they were being overpaid for the work they were doing. This was not just management's opinion, but the decision of a sophisticated quasi-scientific programme administered jointly by management and the union. Because of a charitable provision in the union contract, they would continue to be paid more than they were worth. However, as soon as possible, they would be expected to bid onto another job paying the same, or a higher rate than the old one for Core Feeders or Sheet Turners.

Reception of a message of this sort could be expected to arouse the indignation of the person receiving it. Its reception would result in the receiver finding his own status lowered relative to other employees.
He would want to forcefully inform the sender of the message that it was wrong and, probably, that he was incompetent as well. In more general terms, the recipient's aggression level has risen and there is a tendency to direct this aggression towards the party responsible for his plight. There is one direct channel open for doing just that: by making a job evaluation request he can possibly prove that the Job Evaluation Committee is wrong in its opinion about that job or even some other job. By showing it to be wrong, he can discredit both the Job Evaluation Committee and the results of its deliberations in general. This raises, relatively, the aggrieved person's status in the past and, possibly, in the present.

Almost certainly union officials will sidestep blame for the allegedly erroneous original evaluation. Thus more aggression will likely be channelled towards the other party to job evaluation, management. One readily available channel for expressing aggression against management is the holding of union office; expressing grievances is another. Which channel is chosen will probably depend upon which may be most easily entered. Here we must consider the political structure of union organization in the Martin Plant.

We noted earlier that entry into the ranks of the Job Stewards was relatively easy; apparently almost anyone expressing a strong interest in holding a position as Job Steward may be so appointed. Entry into other union office is more difficult; one must be nominated and elected and this requires some political skill. It is questionable whether it is particularly difficult to raise a grievance; however, getting it to the stage where it is entered in the minutes may require somewhat more effort than establishing one's fitness to become a Job Steward. Making a job evaluation request is quite a simple, effortless process which would account for the heavy usage of this channel for expressing aggression.
RCR Nov. 9, 1959 appears to be an aggression generating mechanism which is a temporary part of the institutional situation. Doubtless many others of various sorts appear from time to time in the history of any organization. As individual aggression levels rise as a result of the action of these mechanisms, pressure to direct this aggression against its source or a substitute increases. Various channels are available for dispelling this aggression; the extent to which each is used will depend to some considerable extent upon the ease with which access to it may be obtained.

14. Micro-Economic Determinants of Grievances:

There is nothing startling in the expectation that economic affairs of the company should be reflected in the amount and type of grievance activity taking place. It is, however, difficult to predict in advance just what the relationship might be. Would one expect grievance activity to increase as sales and profits receded because the employees were then more concerned with job security protection than in good times free of the threat of layoff? Or should employees be expected to increase grievance activity when sales, prices, profits and employment were soaring because they then did not have to be afraid of losing their jobs or promotional possibilities as retribution for "making trouble"?

Figure 12a and table 1 show the relationship between various segments of grievance activity (as well as the whole) and 4 different micro-economic indices. The indices used are: (9) Average number of employees on checkoff; (10) Quarterly plywood sales in million 3/8" sq. ft.; (11) Quarterly plywood sales in $1,000; (12) Average quarterly price per M plywood sold in $. The data cover a 4-year period which is subdivided into quarters.

Only small positive or negative correlations, significant at quite
low confidence levels, were found between the economic indices and most of the segments of grievance activity. Virtually no correlation was found between sales in sq. ft. and either frequency of total grievances or frequency of seniority-posting grievances. Low positive correlations were found between number of employees on checkoff and both total grievances and seniority-posting grievances. However, fairly high positive correlations were found between both average quarterly price of plywood and quarterly sales in $1,000, and total grievances and seniority-posting grievances. In 3 out of 4 instances, higher correlations were obtained using the average quarterly price of plywood than quarterly sales in $1,000; the former economic index has, therefore, been used in figure 12a.

Positive correlations of .52 and .48 respectively were found between the average quarterly price of plywood sold and total grievances and seniority posting grievances. These correlations were significant at the 95% and 90% levels respectively. It appears that fewer grievances are forthcoming during the quarters when negotiations for the Master Agreement take place. Excluding these two quarters, quarterly price of plywood correlated .55 with total grievances and .49 with number of seniority-posting grievances.

On the basis of the data we can probably regard the association between number of grievances and/or number of seniority-posting grievances and average quarterly price of plywood as fairly well established. This leaves unanswered, however, the question of whether there is any direct causal relationship between the two or whether both are indirectly related to some unknown third variable. It would be deceptively easy to say that because of their own interest and the efforts of the local and regional union offices to make members aware of the economic situation of forest products companies, union officers make more demands on their
employers when sales prices are up, knowing that they will be less resistant. It would be just as easy and unsafe to say that, for the same reason employees are less fearful of their jobs and therefore prone to make more demands on the company, knowing that they can less easily be dispensed with.

Things may, indeed, be that direct and simple. On the other hand, related macro-economic factors such as the general level of wages and employment may have a more direct causal connection. Data from the Martin study give us no reason to suspect one explanation more than the other. The question might be partially resolved in a larger scale future study by comparing both micro and macro-economic indices.

The lessening of grievance activity during negotiating quarters seems less well established. However, not only average price of plywood but also sales in $1,000 and number of employees on checkoff showed higher correlations with total grievances and seniority-posting grievances when the two negotiating quarters were excluded. If this apparent lessening of grievance activity during negotiating periods is indicative of a general trend, the explanation is probably a structural one. That is, during negotiating periods one or more of the plant committee-members or the plant chairman is often heavily involved in some official capacity. His time and energy are utilized there and are not available for pressing grievances at the plant level.

15. Status Inconsistency

In Zaleznik's study, status inconsistency, a measure of incongruence between 5 status indices, is used to explain the propensity of certain individuals to assume informal leadership of the work group. Those with high status inconsistency (low status congruence) appear to value and assume leadership positions more than those with low status
inconsistency. Presumably this has something to do with expectations in accordance with "distributive justice" and rewards actually acquired. Those whose rewards have been less than those normally expected for persons with their qualifications are expected to be more anxious to gain the rewards of informal leadership. It is not quite clear just what behaviour is to be expected from those whose rewards have exceeded their expectations.

In any case, if high status inconsistency is positively correlated with the assumption of informal leadership, one would expect Job Stewards, Safety Committee members, Plant Committee members, and Plant Chairmen at Martin to have higher status inconsistency ratings than non-office holders. These are, admittedly, somewhat more formal positions than those in Zaleznik's study, but the psychological needs and political qualifications for acquiring and holding them would seem to be little different.

Neither frequency of holding any union office, frequency of presenting grievances, nor frequency of making job evaluation requests was found to have any significant association with status inconsistency at the Martin Plant. In fact status inconsistency seemed to be randomly associated with all behavioural variables measured. This consistent lack of association would seem to indicate, with little room for doubt, that status inconsistency and leadership are unrelated variables. Incidentally, although status inconsistency seemed to vary somewhat with seniority, when seniority was controlled there was still no association with any behavioural variables.

Although this disposes effectively of status inconsistency as a measure of incongruence between expectations and rewards, it does not necessarily indicate that such incongruence is not associated with
leadership. Quite possibly more meaningful results would be obtained if a measure could be devised taking into account more remote expectations (e.g., those acquired in childhood) and recent rewards; such items as education which are both source of expectations and reward should probably be eliminated or divided so that causal attributes and effects are put on opposite sides of the ledger.

Indeed, such an approach might tie in well with the high aggression level personality hypothesis advanced to explain the tendency of union politicians and grievers to engage in certain other types of behaviour. Experiments with chimpanzees show that promise of reward and subsequent failure to grant the promised reward elicit the most vigorous aggressive behaviour. Early in life children probably obtain certain expectations as to the level of economic and social rewards they will reap later as adults. One might, then, expect that those who fail to attain this anticipated reward level would behave most aggressively.

Unfortunately very little research appears to have been done on this sort of long range view of aggressiveness. When, or if, it is undertaken, it may well provide some valuable clues towards explaining both leadership and antisocial behaviour.

16. Marital Status:

Married men were found to have a greater tendency to engage in holding all the union offices, to press grievances, to make job evaluation requests, to be cited for absenteeism, to incur disciplinary action, and to have debt collection action taken against them than single men; all of these are actions which, for convenience, we labelled aggressive acts earlier. Significance levels varied from around 30% to 98% averaging around 80%. Married men did not tend to engage in
bowling or softball to any greater extent than single men. To eliminate possible effects from these variables, the analysis was repeated (except for bowling and softball) first holding seniority constant, later holding age constant. In both cases the frequency of married men engaging in these activities exceeded the frequency for single men; due to the smaller number of individuals involved significance levels were down sharply although the proportions remained much the same (around 2:1 to 3:1).

The association seems to be fairly well established on the basis of this data.

Married men were on all counts more active than single men. There were too few divorcees or separatees to establish any trends for these groups.

More research is necessary to ferret out explanations for these associations. Since all these actions in which married men engage more than single men were earlier labelled aggressive acts, the association may be indicative of underlying personality differences between the married and the unmarried. These personality differences may be primary ones which also operate to determine who will, and who will not marry. On the other hand, they might be the result of changes in the personality of men following marriage.

17. Attention Requirements:

Jobs with high attention requirements were found to have more job evaluation requests, more grievances, and more union officers emanating from them than those with low attention requirements. Significance levels ranged from 80% to 95%.

However, a high positive correlation was also found between attention requirements of jobs and average seniority of job incumbents. In my
opinion, the association between attention requirements and grievance and political activity is, therefore, probably an illusory one; the increased activity of incumbents of high attention requirement jobs is most likely a result of their high seniority rather than attention requirements of the job.

18. Work Pressure (see 35)

No association was found between work pressure of the job and frequency of grievance or union political activity on the part of job incumbents. I am by no means satisfied that in fact no relationship exists between these variables. I am more inclined to the view that work pressure as here operationally defined may not be closely related to work pressure as subjectively felt by job incumbents.

19. Grievance Processes in a Worker Owned Plywood Plant:

The refusal of the Board of the Olympic Worker Owned Plywood Plant to allow access to records or the plant made it impossible to make detailed, systematic measurements of behaviour and associated personal and work position characteristics. However, I was fortunate enough to obtain interviews with a small number of employees of Olympic and persons who had had some labour relations dealings with them. While the data thus obtained is impressionistic in nature it is reported here because of some striking differences from the situation at the Martin Plant.

Olympic has presently about the same number of employees as Martin, slightly over 200. Two or three years younger than Martin, it was started by a group of promoters who were allegedly more interested in their share of the money raised than in getting the concern off to a good start. The company had severe financial troubles shortly after it was built and
the original promoters were removed from the Board of Directors by an employee-owner rebellion and replaced with a worker Board. Stringent economies were eventually instituted and, at the most propitious moment all other plywood plants in the province were shut down by a 9-week strike of the Lumberworkers Union. Olympic sales skyrocketed during the strike of the other producers; it gained a number of permanent customers and has apparently been a financial success ever since.

Olympic owner-workers (presently about 73% of the total labour force) are all paid the same hourly rate regardless of the position they hold - including foremen. The actual hourly rates vary considerably through time. They are considered monthly by the Board and are altered up or down largely in accordance with the manager's assessment of the financial health of the business. For the last 3 or 4 years these hourly rates have been well above those generally prevailing in private unionized plywood plants. Hourly rates for non-owner employees are kept slightly above the prevailing union rates.

A few specialized non-owner supervisory employees are hired at rates considerably in excess of those paid owner-workers; this includes the manager and some foremen. The manager's role is largely confined to that of a technical expert who advises the Board of Directors. The Board, consisting of 7 annually elected directors, makes all major and a great many minor policy decisions.

Each owner employee is required to own one, and only one, share of stock, currently worth around $5,000. So far as can be determined, no dividends are paid, surplus being distributed through increased wage rates. However, employees are strongly urged to lend substantial portions of their earnings to the company and these loans bear moderately high interest rates. Stock sales must be approved by the Board.
A couple of attempts have been made by the Lumberworkers Union to organize the plant. Both attempts were unsuccessful, apparently because only the non-owner workers were interested in union representation; since they are only about 27% of the work force it was not possible to sign up the 50% needed for certification under provincial labour relations laws.

One manager at Olympic attempted to introduce a grievance committee similar to the union plant committee at Martin. The committee was elected despite the protestations of the Board that it would not work. During its one year tenure, no grievances were brought up except for a very few by committee members themselves. Employees chose, instead, to go directly to Board members with their grievances. At the end of the year all nominees for the grievance committee declined to run for office and the experiment was abandoned.

At the present time workers with grievances ordinarily first attempt to drum up some support among their fellow workers. Then they take the matter up with either a Board member, a foreman, the Superintendent, or the Manager. Here, as in other matters, the final decision rests with the Board. Only the annual membership meeting is superior in authority to the Board; for that reason, many grievances are aired there.

There are striking differences between the subject matter of grievances at Martin and the subject matter at Olympic. At Martin 2/3 of all grievances are concerned with questions of seniority, job posting, etc. On the other hand at Olympic most grievances are questions of management and productive efficiency. Employees often strongly criticize the Manager, The Superintendent or the Board for decisions which they feel do not maximize the profit potential of the Company. A burning issue at the time this study was undertaken was the location of a glue tank. Upon the recommendation of paid supervisory personnel it had been moved to a
new location. Many owner-workers felt that there was no sense to this move and resented having money spent on it. Although management prevailed, the owner-worker opposition was well organized and the outcome had been seriously in doubt for some time.

Occasionally grievances concerned with the personal comfort or convenience of individual employees do come up. However, if they involve spending money they are usually strongly opposed by other owner-workers on the grounds that the money ought to be spent, if at all, on machinery or methods contributing to improved efficiency. Lacking support from other workers such grievances are seldom seriously considered by supervisory personnel or the Board.

No systematic count of grievance frequency was possible. However, one gets the impression that grievances are much more frequently presented and more heatedly pressed than at Martin. Supervisory personnel and the Board sit at the pleasure of the owner-workers; this places them in the position of having to grant grievances which have considerable support from owner-workers unless they can present very convincing reasons for not doing so.

Very little information was available on the grievance processes as applying to non-owner workers.
<table>
<thead>
<tr>
<th>Percent</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>94% level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Making Job Evaluation Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent</th>
<th>Signif.</th>
</tr>
</thead>
<tbody>
<tr>
<td>20</td>
<td>95% level</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Pressing Specific Personal or Group Grievances</th>
</tr>
</thead>
<tbody>
<tr>
<td>10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Holding Some Union Office &amp; Making Job Evaluation Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 71</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Holding Some Union Office &amp; Pressing Specific Personal or Group Grievances</th>
</tr>
</thead>
<tbody>
<tr>
<td>n = 71</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Non-Office Holders</th>
<th>Office Holders</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-Office Holders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Office Holders</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( n = 234 \)
Making job evaluation requests & pressing specific personal or group grievances

Percent
Pressing
Specific
Personal
or
Group
Grievances

40
30
20
10
0

34.6%
n = 20
Signif.
99.9% level

7.5%
n = 275

No job evaluation requests
Job evaluation requests

Pressing specific personal or group grievances & making job evaluation requests

Percent
Making
Evaluation
Requests

40
30
20
10
0

30.0%
n = 30
Signif.
99.9% level

6.2%
n = 275

No grievances
Grievances
Presented
Presented

Fig. 1c

Fig. 1d
Percent 20
Promoted to Foreman 10

9.5% n=84


Date Hired

Seniority & Promotion to Foreman
Fig. 2a

Percent 60
Holding 50
Some 40
Union 30
Office 20

93.5% n=84

20.3% n=57

11.6% n=54 12.5% n=25 3.6% n=34


Date Hired

Seniority & Holding Some Union Office
Fig. 2b
Fig. 2c

Fig. 2d

Seniority & Service on Safety Committee

Seniority & Service as Job Steward
Percent serving on Plant Committee or as Plant Chairman

Seniority & Service on Plant Committee or as Plant Chairman

Signif. 99.9% level

Seniority & Making Job Evaluation Requests

Signif. 99.9% level

Fig. 2a

Fig. 2b
Percent 30
Presenting Specific Personal
or Group 20 10 0
Grievance

Signif. 98.4% level


Date HIred

Seniority & Presenting Specific Personal or Group Grievance

Fig. 29
Figure 2h

Number of Terms of Union Office per Year of Employment:

<table>
<thead>
<tr>
<th>Year of Employment</th>
<th>Number of Terms</th>
</tr>
</thead>
<tbody>
<tr>
<td>1954-55</td>
<td>84</td>
</tr>
<tr>
<td>1956-57</td>
<td>59</td>
</tr>
<tr>
<td>1958-59</td>
<td>34</td>
</tr>
<tr>
<td>1960-61</td>
<td>25</td>
</tr>
<tr>
<td>1962-63</td>
<td>84</td>
</tr>
</tbody>
</table>

Percent Serving Indicated Number of Terms in Some Union Office per Year of Employment

Differences Between Hiring Dates Significant 99.9% level

*Due to a minor computer error, 2 out of 286 cases were entered as "No Data." Some percentages, therefore, total slightly less than 100%.
BIRTH DATE & HOLDING SOME UNION OFFICE
(All Employees Compared with Those Hired in 1954-55)

Fig. 3a

Differences Between Birth Dates Significant:
All Employees - 95% level
Hired 1954-55 - 50% level
DIFF. SIGNIF.  
\[ 20\% \text{ level} \]

**Percent Serving** 50

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>28.6%</td>
<td>30%</td>
<td>n=7</td>
<td>n=19</td>
<td>n=30</td>
<td>n=6</td>
<td>n=0</td>
</tr>
</tbody>
</table>

**Birth Date & Service as Job Steward**  
(Employees Hired in 1954-55 Only)  
Fig. 3b

---

**Percent Serving on Safety Committee** 60

<table>
<thead>
<tr>
<th>Committee</th>
<th>1845-1910</th>
<th>1910-1920</th>
<th>1920-1930</th>
<th>1930-1940</th>
<th>1940-1949</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.3%</td>
<td>n=7</td>
<td>n=19</td>
<td>n=20</td>
<td>n=30</td>
<td>n=0</td>
</tr>
</tbody>
</table>

**Birth Date & Service on Safety Committee**  
(Employees Hired in 1954-55 Only)  
Fig. 3c
BIRTH DATE & SERVICE ON PLANT COMMITTEE OR AS PLANT CHAIRMAN (Employees hired in 1954-55 only) fig. 3d

Percent 40
Serving on Plant Committee 20
or as Plant Chairman 10

<table>
<thead>
<tr>
<th>Birth Date</th>
<th>1895 - 1910</th>
<th>1920 - 1930</th>
<th>1940 - 1959</th>
</tr>
</thead>
<tbody>
<tr>
<td>14.3%</td>
<td>105%</td>
<td>30.6%</td>
<td></td>
</tr>
<tr>
<td>n = 7</td>
<td>n = 19</td>
<td>n = 30</td>
<td></td>
</tr>
</tbody>
</table>

Diff. Signif. 45% level

BIRTH DATE & MAKING JOB EVALUATION REQUESTS (Employees hired in 1954-55 only) fig. 3e

Percent 40
Making 30
Job 20
Evaluation 10
Requests 0

<table>
<thead>
<tr>
<th>Birth Date</th>
<th>1895 - 1910</th>
<th>1920 - 1930</th>
<th>1940 - 1959</th>
</tr>
</thead>
<tbody>
<tr>
<td>28.6%</td>
<td>26.7%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>n = 7</td>
<td>n = 30</td>
<td>n = 0</td>
<td></td>
</tr>
</tbody>
</table>

Diff. Signif. 10% level
BIRTH DATE & PRESSING SPECIFIC PERSONAL
OR GROUP GRIEVANCE
(EMPLOYEES HIRED IN 1954-55 ONLY)

Fig. 3f
Differences between Birthplaces Significant:
All Employees - 98% level
Employees Hired 1954-55 - 70% level

BIRTHPLACE & SERVICE AS JOB STEWARD
(All Employees Compared with those Hired in 1954-55)
fig. 3.5a
Differences Between Birthplaces
Significant:
All Employees - 99% level
Hired 1954-55 - 60% level

BIRTHPLACE & SERVICE ON SAFETY COMMITTEE
(All Employees Compared with those Hired in 1954-55)
fig 3.5 b
Differences Between Birthplaces: Significant:
All Employees = 90% level
Hired 1954-55 = 30% level

Birthplace & Service on Plant Committee or as Plant Chairman
(All Employees Compared with those Hired in 1954-55)
fig. 3.5 C
EDUCATION, HOLDING UNION OFFICE, PRESENTING GRIEVANCES (Excluding Employees Hired in 1962-1963)

**Percent Holding some Union Office**
- 30% (n=149) 78 & up 6 & less
- 20% (n=149) 6 & less
- 10% (n=15) 78 & up 6 & less

**Percent Serving as a Job Steward**
- 30% (n=149) 78 & up 6 & less
- 20% (n=149) 6 & less
- 10% (n=15) 78 & up 6 & less

**Percent Serving on Safety Committee**
- 20% (n=149) 78 & up 6 & less
- 10% (n=15) 6 & less

**Significance at 70% level**
- 26.8% (n=150)
- 12.6% (n=150)
- 14.1% (n=169)

**Years of Education**
- Fig. 4a
- Fig. 4b
- Fig. 4c
- Fig. 4d
- Fig. 4e
Percent Serving as Job Steward

<table>
<thead>
<tr>
<th>Years of Education</th>
<th>Employees Hired in 1954-55 Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 &amp; up</td>
<td>10</td>
</tr>
<tr>
<td>12-11</td>
<td>20</td>
</tr>
<tr>
<td>10-7</td>
<td>30</td>
</tr>
<tr>
<td>8-7</td>
<td>40</td>
</tr>
<tr>
<td>6 &amp; Less</td>
<td>50</td>
</tr>
</tbody>
</table>

Differences Between Educational Levels Significant 10% Levels

<table>
<thead>
<tr>
<th>Years of Education</th>
<th>Employees Hired in 1954-55 Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 &amp; up</td>
<td>10</td>
</tr>
<tr>
<td>12-11</td>
<td>20</td>
</tr>
<tr>
<td>10-7</td>
<td>30</td>
</tr>
<tr>
<td>8-7</td>
<td>40</td>
</tr>
<tr>
<td>6 &amp; Less</td>
<td>50</td>
</tr>
</tbody>
</table>

Differences Between Educational Levels Significant 10% Levels

<table>
<thead>
<tr>
<th>Years of Education</th>
<th>Employees Hired in 1954-55 Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 &amp; up</td>
<td>10</td>
</tr>
<tr>
<td>12-11</td>
<td>20</td>
</tr>
<tr>
<td>10-7</td>
<td>30</td>
</tr>
<tr>
<td>8-7</td>
<td>40</td>
</tr>
<tr>
<td>6 &amp; Less</td>
<td>50</td>
</tr>
</tbody>
</table>

Differences Between Educational Levels Significant 10% Levels

<table>
<thead>
<tr>
<th>Years of Education</th>
<th>Employees Hired in 1954-55 Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 &amp; up</td>
<td>10</td>
</tr>
<tr>
<td>12-11</td>
<td>20</td>
</tr>
<tr>
<td>10-7</td>
<td>30</td>
</tr>
<tr>
<td>8-7</td>
<td>40</td>
</tr>
<tr>
<td>6 &amp; Less</td>
<td>50</td>
</tr>
</tbody>
</table>

Differences Between Educational Levels Significant 10% Levels

<table>
<thead>
<tr>
<th>Years of Education</th>
<th>Employees Hired in 1954-55 Only</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 &amp; up</td>
<td>10</td>
</tr>
<tr>
<td>12-11</td>
<td>20</td>
</tr>
<tr>
<td>10-7</td>
<td>30</td>
</tr>
<tr>
<td>8-7</td>
<td>40</td>
</tr>
<tr>
<td>6 &amp; Less</td>
<td>50</td>
</tr>
</tbody>
</table>
Differences between Educational levels significant 20% level

Years of Education

Education & Service on Plant Comm. or As Plant Chairman

(Employees hired in 1954-55 only)

Fig. 4.
EDUCATION & PRESSING SPECIFIC PERSONAL OR GROUP GRIEVANCES
(Employees Hired in 1954-55 only)
fig. 4i

EDUCATION & MAKING JOB EVALUATION REQUESTS
(Employees Hired in 1954-55 only)
fig. 4j
PAY & HOLDING SOME UNION OFFICE
(All Employees Compared with those Hired in 1954-55)
Fig. 5a.

Differences Between Pay Rates Significant:
All Employees — 79% level
Hired 1954-55 — 40% level
Differences Between Pay Rates
Significant:
All Employees - .99% level
Hired 1954-55 - .2% level

PAY & PRESENTING SPECIFIC PERSONAL OR GROUP GRIEVANCE
(All Employees Compared with those Hired in 1954-55)

fig. 5b
Differences Between Pay Rates Significant:
All Employees - 99% level
Hired 1954-55 - 27% level

<table>
<thead>
<tr>
<th>Pay Rate</th>
<th>Percent</th>
<th>Job</th>
<th>Evaluation</th>
<th>Request</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>90</td>
<td>80</td>
<td>70</td>
<td>60</td>
</tr>
</tbody>
</table>

Pay & Making Job Evaluation Requests
(All Employees Compared with those Hired in 1954-55)

Fig. 5 C
Differences Between two types of Absenteeism Records Significant:
All Employees — 99% level
Hired 1954-55 — 80% level

Differences Between Disciplinary Action Records Significant:
All Employees — 90% level
Hired 1954-55 — 30% level

ABSENTEEISM & HOLDING SOME UNION OFFICE
(All Employees compared with those Hired in 1954-55)
Fig. 6a

DISCIPLINARY ACTION & HOLDING SOME UNION OFFICE
(All Employees compared with those Hired in 1954-55)
Fig. 6b
DEBT COLLECTION ATTEMPTS & HOLDING
SOME UNION OFFICE
(All Employees Compared with those Hired in 1954-55)
fig. 6C
Number of terms of Union Office per year of Employment:

- 0.01-0.50
- 0.51 & up

Differences between Accident Rates Significant at 90% level.

TIME LOSS ACCIDENT RATES & NUMBER OF TERMS OF UNION OFFICE PER YEAR OF EMPLOYMENT

Fig. 7a

Percent
- Serving 90
- Indicated 80
- Terms in 60
- Some Union 50
- Office per 40
- Year of 30
- Employment 20

0.04 days lost per month of Employment

Employee Time Loss

Accident Rate

TIME LOSS ACCIDENT RATES & NUMBER OF TERMS OF UNION OFFICE PER YEAR OF EMPLOYMENT

Fig. 7b

Percent
- Serving 30
- As Job 20
- Stewards 10

Employees' TL Accident Rate

Days Lost per Month Employed

TIME LOSS ACCIDENT RATES & SERVICE AS JOB STEWARD

Percent
- Serving 30
- As Job 20
- Stewards 10

Employees' TL Accident Rate

Days Lost per Month Employed

TIME LOSS ACCIDENT RATES & SERVICE ON SAFETY COMMITTEE

Fig. 7c
<table>
<thead>
<tr>
<th>Percent Serving on Plant Committee or as Plant Chairman</th>
<th>Diff. Signif. 40% level</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Making Job Evaluation Requests</td>
<td>Diff. Signif. 50% level</td>
</tr>
</tbody>
</table>

**Percent Serving on Plant Committee or as Plant Chairman**

<table>
<thead>
<tr>
<th>Serving on Plant Committee</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Percent Making Job Evaluation Requests</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

**Percent Making Job Evaluation Requests**

<table>
<thead>
<tr>
<th>Making Job Evaluation Requests</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

**Employees TL Accid. Rate Days Lost per Month Employed**

<table>
<thead>
<tr>
<th>Employees TL Accid. Rate Days Lost per Month Employed</th>
<th>Percent 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

**Employee TL Accid. Rate Days Lost per Month Employed**

<table>
<thead>
<tr>
<th>Employees TL Accid. Rate Days Lost per Month Employed</th>
<th>Percent 30</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

**Time Loss Accident Rates & Service on Plant Comm. or as Plant Chairman**

**Fig. 7d**

**Time Loss Accident Rates & Service on Plant Comm. or as Plant Chairman**

**Fig. 7e**

**Percent Pressing Specific Personal or Group Grievances**

<table>
<thead>
<tr>
<th>Percent Pressing Specific Personal or Group Grievances</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

**Percent Pressing Specific Personal or Group Grievances**

<table>
<thead>
<tr>
<th>Pressing Specific Personal or Group Grievances</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0</td>
</tr>
</tbody>
</table>

**Percent Pressing Specific Personal or Group Grievances**

<table>
<thead>
<tr>
<th>Pressing Specific Personal or Group Grievances</th>
<th>17.7%</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0.39</td>
</tr>
</tbody>
</table>

**Percent Pressing Specific Personal or Group Grievances**

<table>
<thead>
<tr>
<th>Grievances</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0.04</td>
</tr>
</tbody>
</table>

**Grievances**

<table>
<thead>
<tr>
<th>Grievances</th>
<th>20</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0.05</td>
</tr>
</tbody>
</table>

**Grievances**

<table>
<thead>
<tr>
<th>Grievances</th>
<th>10</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0.05</td>
</tr>
</tbody>
</table>

**Grievances**

<table>
<thead>
<tr>
<th>Grievances</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0.06</td>
</tr>
</tbody>
</table>

**Grievances**

<table>
<thead>
<tr>
<th>Grievances</th>
<th>0</th>
</tr>
</thead>
<tbody>
<tr>
<td>or as Plant Chairman</td>
<td>0.06</td>
</tr>
</tbody>
</table>

**Grievances**

**Fig. 7f**
BOWLING & NUMBER OF TERMS OF UNION OFFICE PER YEAR OF EMPLOYMENT (for Employees Hired in 1954-55)

SOFTBALL & NUMBER OF TERMS OF UNION OFFICE PER YEAR OF EMPLOYMENT (for Employees Hired in 1954-55)
<table>
<thead>
<tr>
<th>Percent</th>
<th>Differences</th>
<th>Percent</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making</td>
<td>Signif. 70%</td>
<td>Pressing</td>
<td>Signif. 90%</td>
</tr>
<tr>
<td>Job</td>
<td></td>
<td>Specific</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td>Grievances</td>
<td></td>
</tr>
<tr>
<td>Requests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Non-Bowlers</td>
<td>Non-Bowlers</td>
<td>Non-Bowlers</td>
<td>Non-Bowlers</td>
</tr>
<tr>
<td>40.0%</td>
<td>20.3%</td>
<td>50.0%</td>
<td>20.3%</td>
</tr>
<tr>
<td>n=21</td>
<td>n=264</td>
<td>n=21</td>
<td>n=264</td>
</tr>
</tbody>
</table>

**BOWLING & JOB EVALUATING REQUESTS**
(Employees Hired in 1954-55)
Fig. 8c

<table>
<thead>
<tr>
<th>Percent</th>
<th>Differences</th>
<th>Percent</th>
<th>Differences</th>
</tr>
</thead>
<tbody>
<tr>
<td>Making</td>
<td>Signif. 0%</td>
<td>Pressing</td>
<td>Signif. 90%</td>
</tr>
<tr>
<td>Job</td>
<td></td>
<td>Specific</td>
<td></td>
</tr>
<tr>
<td>Evaluation</td>
<td></td>
<td>Grievances</td>
<td></td>
</tr>
<tr>
<td>Requests</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>60</td>
<td></td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>50</td>
<td></td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>40</td>
<td></td>
<td>40</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td></td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>22.8%</td>
<td>20.0%</td>
<td>21.5%</td>
<td>20.0%</td>
</tr>
<tr>
<td>n=290</td>
<td>n=15</td>
<td>n=290</td>
<td>n=15</td>
</tr>
</tbody>
</table>

**SOFTBALL & JOB EVALUATING REQUESTS**
(Employees Hired in 1954-55)
Fig. 8e

**BOWLING & PRESSING SPECIFIC PERSONAL OR GROUP GRIEVANCE**
(Employees Hired in 1954-55)
Fig. 8d

**SOFTBALL & PRESSING SPECIFIC PERSONAL OR GROUP GRIEVANCE**
(Employees Hired in 1954-55)
Fig. 8f
Percent of jobs 30  
with election  
to Safety Comm. 20  
frequencies of  
10 per year & up  

<table>
<thead>
<tr>
<th>0% - 1%</th>
<th>2% &amp; up</th>
</tr>
</thead>
<tbody>
<tr>
<td>7.1%</td>
<td>16.7%</td>
</tr>
<tr>
<td>n=14</td>
<td>n=42</td>
</tr>
</tbody>
</table>

Diff. signif.  
40% level  

OBSERVED COMMUNICATION  
RATE & FREQUENCY OF ELECTION TO SAFETY COMMITTEE  
PER MAN PER YEAR  
fig. 9a.

Percent of jobs 30  
with election to  
Plant Comm. or 20  
Plant Chairman  
frequencies 10  
of .10 per man  
per year & up  

<table>
<thead>
<tr>
<th>0% - 1%</th>
<th>2% &amp; up</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>n=14</td>
<td>n=42</td>
</tr>
</tbody>
</table>

Diff. signif.  
85% level  

OBSERVED COMMUNICATION  
RATE & FREQUENCY OF ELECTION TO PLANT COMMITTEE  
OR PLANT CHAIRMAN PER MAN PER YEAR  
fig. 9b
SCATTER DIAGRAM SHOWING MEAN SENIORITY FOR JOBS & SENIORITY PAY RATE REGRESSION LINES (Skilled Trades Excluded)

Fig. 10a
Percent of Jobs
90
80
70
60
50
40
30
20
10

Percent of Jobs
90
80
70
60
50
40
30
20
10

Diff signif. 95%
level

Mean Seniority of Job Incumbents Relative to Seniority-Pay Regression Line

Relative Seniority Value of Job & Grievances
fig 10 b

Relative Seniority Value of Job & Job Evaluation Requests
fig 10 c

Diff Signif. 80% level

n = 30

n = 28

n = 16

-2.5 to +0.9
+1.0 & up

-2.5 to +0.9
+1.0 & up

Mean Seniority of Job Incumbents Relative to Seniority-Pay Regression Line
Percent 100
of Jobs 90
with 80
Recorded 70
Specific 60
Personal 50
or Group 40
Grievance 30
pressed 20
by man 10
from Job 0

Mean Seniority of Job Incumbents
Relative to Seniority-Pay Regression Line
fig 10d

Percent 100
of Jobs 90
with 80
Job 70
Evaluation 60
Request 50
Made 40
by 30
Man 20
from 10
Job 0

Mean Seniority of Job Incumbents
Relative to Seniority-Pay Regression Line
fig 10e

RELATIVE SENIORITY VALUE OF JOB & GRIEVANCES

RELATIVE SENIORITY VALUE OF JOB & JOB EVALUATION REQUESTS
Percent of Jobs

Mean Relative Seniority

-0.9 &

Up

n=34

n=19

9.2% 90%

6.15%

Observed Communication Rate (% of working time spent communicating) Observed Communication Rate & Mean Relative Seniority Value of Jobs

fig. 10f

Length of Shortest Regular Work Cycle

Length of Shortest Regular Work Cycle & Mean Seniority Value of Jobs

fig. 10g
GRIEVANCES & COMPANY ECONOMICS (Time Series)

* When 2 quarters in which wage negotiations were conducted (#7411) are excluded, r = 0.55 for price plywood total grievances. 49% for price plywood seniority, etc., grievances.

Fig. 12a
MARTIN SITE PLAN (North 1/4)

Fig. 13a.
MARTIN SITE PLAN (North $\frac{1}{2}$)

LEGEND
$\text{X} =$ WORK POSITION, MAIN FLOOR
$\text{O} =$ WORK POSITION, ELEVATED PLATFORM

Fig. 14a.
<table>
<thead>
<tr>
<th>QUARTER NUMBER</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
<th>15</th>
<th>16</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Seniority, Job Posting &amp; Seniority Grievances, etc.</td>
<td>10</td>
<td>9</td>
<td>5</td>
<td>5</td>
<td>0</td>
<td>12</td>
<td>3</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>12</td>
<td>10</td>
<td>8</td>
<td>100</td>
</tr>
<tr>
<td>2. Total Grievances</td>
<td>13</td>
<td>17</td>
<td>8</td>
<td>6</td>
<td>4</td>
<td>16</td>
<td>3</td>
<td>7</td>
<td>4</td>
<td>6</td>
<td>5</td>
<td>8</td>
<td>5</td>
<td>18</td>
<td>18</td>
<td>10</td>
<td>158</td>
</tr>
<tr>
<td>3. Grievances Initiated by the Union</td>
<td>3</td>
<td>11</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>10</td>
<td>0</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>5</td>
<td>10</td>
<td>4</td>
<td>85</td>
</tr>
<tr>
<td>4. Grievances Initiated by the Company</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>4</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>5. Grievances Settled in Union's Favour</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>6</td>
<td>0</td>
<td>0</td>
<td>7</td>
<td>0</td>
<td>4</td>
<td>2</td>
<td>0</td>
<td>2</td>
<td>5</td>
<td>3</td>
<td>3</td>
<td>7</td>
<td>4</td>
</tr>
<tr>
<td>%</td>
<td>50</td>
<td>45</td>
<td>60</td>
<td>0</td>
<td>0</td>
<td>70</td>
<td>0</td>
<td>100</td>
<td>50</td>
<td>0</td>
<td>50</td>
<td>62</td>
<td>60</td>
<td>43</td>
<td>64</td>
<td>50</td>
<td>53</td>
</tr>
<tr>
<td>6. Grievances Settled in Company's Favour</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>%</td>
<td>25</td>
<td>27</td>
<td>30</td>
<td>75</td>
<td>10</td>
<td>10</td>
<td>100</td>
<td>0</td>
<td>50</td>
<td>0</td>
<td>50</td>
<td>0</td>
<td>25</td>
<td>40</td>
<td>43</td>
<td>18</td>
<td>25</td>
</tr>
<tr>
<td>7. Grievances Settled by Roughly Equal Compromise</td>
<td>3</td>
<td>3</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>2</td>
<td>17</td>
</tr>
<tr>
<td>%</td>
<td>25</td>
<td>27</td>
<td>10</td>
<td>25</td>
<td>0</td>
<td>20</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>50</td>
<td>50</td>
<td>13</td>
<td>0</td>
<td>14</td>
<td>18</td>
<td>25</td>
<td>18</td>
</tr>
<tr>
<td>8. &quot;Issue&quot;Grievances (total of 5, 6, &amp; 7)</td>
<td>4</td>
<td>11</td>
<td>10</td>
<td>4</td>
<td>1</td>
<td>10</td>
<td>1</td>
<td>4</td>
<td>4</td>
<td>2</td>
<td>4</td>
<td>8</td>
<td>5</td>
<td>7</td>
<td>11</td>
<td>8</td>
<td>94</td>
</tr>
<tr>
<td>9. Average Number of Employees on Checkoff</td>
<td>212</td>
<td>216</td>
<td>204</td>
<td>202</td>
<td>216</td>
<td>211</td>
<td>217</td>
<td>217</td>
<td>196</td>
<td>215</td>
<td>221</td>
<td>209</td>
<td>204</td>
<td>212</td>
<td>219</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Quarterly Plywood Sales in Million 3/8&quot; sq. ft.</td>
<td>111</td>
<td>122</td>
<td>11.7</td>
<td>12.0</td>
<td>9.5</td>
<td>12.0</td>
<td>13.3</td>
<td>11.7</td>
<td>9.8</td>
<td>12.9</td>
<td>128</td>
<td>119</td>
<td>12.2</td>
<td>12.9</td>
<td>12.6</td>
<td>14.3</td>
<td></td>
</tr>
<tr>
<td>11. Quarterly Plywood Sales in $1,000</td>
<td>887</td>
<td>904</td>
<td>809</td>
<td>806</td>
<td>675</td>
<td>804</td>
<td>1061</td>
<td>757</td>
<td>633</td>
<td>875</td>
<td>368</td>
<td>866</td>
<td>931</td>
<td>707</td>
<td>1087</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Average Quarterly Price per M Plywood Sold in $</td>
<td>74.9</td>
<td>74.4</td>
<td>69.2</td>
<td>66.2</td>
<td>71.4</td>
<td>67.6</td>
<td>79.7</td>
<td>64.4</td>
<td>64.6</td>
<td>67.6</td>
<td>70.3</td>
<td>71.0</td>
<td>70.4</td>
<td>72.6</td>
<td>75.6</td>
<td>79.8</td>
<td></td>
</tr>
<tr>
<td>13. Collective Agreement Expiry Date (X)</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| 14. Total No. of Grievances per 100 Employees per Year | ← 22.3 → ← 12.8 → ← 11.2 → ← 23.6 →

**DISTRIBUTION OF GRIEVANCES & RELATED ECONOMIC FACTORS BY QUARTERS**

Table 1.
CHAPTER V

A THEORETICAL OVERVIEW

As each of the empirical findings was discussed in the last section, some attempt was made to explain it by fitting it into a broader or more general context of expectations regarding human behaviour. While some connection between the individual items discussed should be apparent in some cases, a unifying logical framework is still lacking.

In this section I shall attempt to fill this gap, to fit the disconnected pieces of evidence from this study and others into an overall theory of grievance behavior. Because the empirical evidence upon which it is built varies from the well established to the barely suggested, it should be considered as a network of working hypotheses to guide further research rather than as "laws" of grievance behaviour. Because of the scattered sources little effort shall be expended in crediting the ideas entering into this theoretical network to their original owners.

A. Personal Attributes:

(1) High Aggression Level Personality - Whether and which individuals will engage in grievance and associated political activities depends primarily upon which persons have high aggression level personalities and a consequent need to direct aggression against someone or something. The amount of activity will vary directly with the level of aggression. Aggression levels are the product of: genetic makeup of the individual; remote, e.g. childhood, social experiences; recent social experiences; and age of the individual. Genetic makeup and remote social experiences are far beyond the scope of this paper; recent social experiences and age will be discussed briefly below.

(a) Age - The tendency to express aggression lessens with increasing age of the individuals concerned. This is a result of a long term biologically based trend to reduced activity as age progresses. An
apparent acceleration of this trend may be due to the likelihood of older workers having established outlets for expressing aggression away from their industrial environments.

Unfortunately, it was not possible to develop any direct measures of individual aggression levels for presentation here. However, the tendency of certain individuals to engage in otherwise quite independent behaviour points strongly to the existence of some such personality variable as a determining factor. Those who engaged in the related activities of grievance activity and union office holding also tended to engage in the apparently unrelated activities of falling prey to serious accidents and failing to pay debts on time to a greater extent than other employees. They also tended to engage to a greater extent in such probably unrelated activities as bowling, softball, foremanship and theft.

It should be emphasized that personality attributes, which have here been labelled high aggression levels, appear to be the most important single determinants of the rate of grievance activity.

B. Structural Determinants:

(1) Area of Greatest Potential Personal Loss or Gain - The subject matter of grievances will tend to be largely in the areas of areas which are most instrumental in determining the level of the employee's personal earnings or other major rewards and punishments.

At Martin, where seniority is virtually the sole criterion governing promotion and rights to jobs, 2/3 of the grievances have to do with seniority, posting and job security. Although routed into a special channel all its own, job evaluation requests amounted in volume to around 20% of the volume of total grievances.

At Olympic, where employees' earnings rise and fall with the profits of the company, most grievances have to do with increasing the efficiency
and profitability of the enterprise.

Sayles and Kuhn, who studied a number of very large industrial plants in central and eastern United States do not address themselves directly to expressing the magnitude of various types of grievances. However, both give the impression that most grievances involve disputes over incentive rates. In these plants, except for skilled tradesmen, most employees appear to work on incentive rates.

(2) **Point of Application** - Where two or more avenues are available for pressing grievances, the avenue which:

(a) is most directly subject to employee control, and

(b) has the greatest power to alter the status quo

will tend to be chosen most.

At Martin, although Job Stewards are formally responsible for handling grievances in the initial stages (and in fact did so for a time after the plant was founded) they have to a great extent been displaced in this activity by the Plant Committee which is the supreme representative of the employees in the Plant. Although separate organs are set up to take care of them, major safety questions and particularly thorny job evaluation questions are often taken up by the Plant Committee. The strike and the slowdown (or quality falldown) are the ultimate weapons used by employees to gain their ends.

At Olympic, an attempt to introduce a grievance committee modelled after the union committee at Martin failed because employees would not present their grievances to it. They preferred, instead, to take up their grievances with the Board of Directors which had full interim authority to manage the plant or with the ultimate authority, the annual meeting. Firing the manager or refusal to re-elect Board members are the ultimate weapons used.
In Sayles and Kuhn's studies, job stewards and committeemen appear to be favoured as grievance channels over local and/or international union representatives who often in name but seldom in fact have the power to obtain satisfactory settlements. Wildcat strikes and slowdowns are said to be frequently used to pressure management into accepting proposals of the workers.

(3) **Prestige and Political Qualifications**

(a) **Seniority** - Senior employees, being first on the scene, fill the initial service positions available such as Job Steward, Committeeman, etc. They are unlikely to be displaced by junior men unless they retire or the juniors can present a convincing case that they can do a better job. Having had earlier experience in official union positions and in handling grievances, senior employees are better qualified by virtue of this experience to handle cases arising in the future. Consequently their status tends to be self perpetuating.

Experience on the job increases with seniority and is a valuable qualification for anyone wishing to be a spokesman for his fellow workers. Whatever the reason, the individual's prestige seems to increase with seniority; this is a valuable political asset come election time.

(b) **Birthplace** - Persons born in non-English speaking countries tend to have less acquaintance with the language and less prestige than those who sound like natives. They are thus double handicapped in having a less well developed political tool (language) and a lesser ascribed political asset (prestige). They therefore tend to be less sought after to serve in union office. Raising grievances is a less exacting political task than being elected or appointed to office and they are able to hold their own in this endeavour.
(c) **Education** - Those employees with very low education (grade 6 or less) are greatly handicapped in communicating either as transmitters or receivers, particularly in print. They also lack facility in doing commonplace administrative tasks involving simple arithmetic. This prevents them from instilling confidence in their fellow workers that they are capable of adequately handling their grievances and union political affairs and in fact probably prevents them from fully comprehending these relatively complex affairs.

Just as those with very low education are handicapped, those with relatively high education have the advantage in being more capable in communicating and in performing routine administrative tasks. They are able to instill confidence in their constituents regarding their ability to represent them.

There seems to be some residual prestige value attached to higher education, a valuable political asset when elections are held.

(d) **Pay** - There is some residual prestige attached to higher pay. This is a minor political asset at election time which results in a slight tendency for the higher paid workers to hold union office more than the lower paid. It seems doubtful whether pay levels have any effect on the rate of pressing grievances.

While these may be the major prestigious elements and political assets, there are undoubtedly many more not listed here. They all act together to determine who shall engage in grievance activity and in holding union office.

As a general rule we may say that:

1. The greater an employee's prestige, the more likely he is to be sought after to hold union office and to press grievances.

2. The greater the ability of the individual to perform communicative, administrative and political tasks, the more likely he
is to hold union office or to engage in pressing grievances.

iii. The lack of prestige and of ability to perform communicative, administrative and political tasks is less of a barrier to engaging in pressing grievances than to holding union office.

iv. The earlier an employee arrives in an industrial setting the more likely he is to engage in grievance and union political activity.

(4) Barriers to Participation - Employees who hold jobs enabling them to communicate very little (1% of their time or less) or not at all with other employees are less likely to hold union office than those holding jobs permitting more communication. Apparently a minimum of around 1% of the employee's time must be allotted to communication if he is to engage effectively in union politics. Communication possibilities in excess of this threshold level do not seem to increase the office-holding potential of the job incumbent.

In general:
(a) the less leisure time the employee has
(b) the fewer sequentially related fellow workers he has
(c) the greater the distance to other employees
(d) the greater the noise level at his and surrounding work positions

the less will he be able to communicate with other employees.

These four factors act together to limit the amount of communication that is possible at a given work position. Subject to the ceiling thus established, the amount of communication that actually takes place will be determined by the propensity of the job incumbent to communicate.

Low communication potentials do not seem to restrict the ability of job incumbents to press grievances. Grievances arise only occasionally
and support for them can be obtained by expending a little extra effort
during, before or after work to communicate with other workers and officials.
Office-holders, on the other hand, must always keep their political fences
mended and must be available to handle grievances of others.

5. Alternate Channels for Expressing Aggression - A number of
different channels are available for expressing aggression. Aggression
may be externally directed through absenteeism-tardiness, actions subject
to disciplinary action, not paying debts when due, bowling, playing soft-
ball, holding union office, making job evaluation requests, pressing
grievances, theft, and quite possibly foremanship. Aggression may be
internally directed by incurring time loss accidents. This list is,
of course, by no means exhaustive.

The association between many of these variables has been reported
in the Research Findings of Section IV. Because of the small incidence,
theft and foremanship have so far escaped our attention. Of 2 major
thefts from Martin, both were committed by men who had been union
officers; one had also been a foreman. Statistically, union officers
have shown the same propensity to become foremen as non-office-holders
since establishment of the plant in 1955. From the end of 1956 on,
union officers have shown a greater propensity to become foremen. Since
December 1956, 6 rank and file employees have been promoted to foreman;
half of them had held union office and all had been nominated for union
office at least once. It seems quite likely that men who became foremen
before the end of 1956 had been hired as potential foremen while those
who became foremen later had not.

That more union officers do not become foremen may be due to the
presence of a more attractive alternative, serving as a union business
agent. Many Lumberworkers business agents report having declined
offers to become foremen. Two Plant Chairmen from Martin have become full time paid union representatives. Financial rewards for a business agent are greater than those for foremen. (Foremen start at $425 monthly with an increase after 3 months to $450. Union business agents start at $542 monthly and, if elected to a position such as Secretary, President, etc., may earn considerably more.) Probably other personal rewards such as prestige and granting of responsibility are also somewhat higher.

On balance it would seem that some association between union office-holding, foremanship and large scale theft from the employer does exist and that the latter two can be added to the list of activities which serve as channels for discharging aggression.

The sort of association that may be found between foremanship, theft, union office and other variables listed above may best be illustrated by listing the activities of 6 somewhat extraordinary employees:

Case Number 1 - Tom McAlister:
Years of employment at Martin - 8
Number of terms of Union Office per year of employment - 0.25
Bowling - no
Softball - no
Time Loss Accident Rate, days per month of employment - 0
Number of grievances pressed - 0
Number of Job Evaluation Requests made - 0
Absenteeism-Tardiness - Yes
Disciplinary Action - Yes.
Debt Collection Attempts - No.
Foremanship - No
Major Theft from Martin - Yes.
Case Number 2 - Gordon McGregor

Years of employment at Martin - 8

Number of terms of Union Office per year of Employment - 1.33

Bowling - Yes

Softball - No

Time Loss Accident Rate - days per month of employment - 0

Number of Grievances Pressed - 0

Number of Job Evaluation Requests - 1

Absenteeism - Tardiness - No

Disciplinary Action - Yes

Debt Collection Attempts - No

Foremamship - Yes

Major Theft from Martin - Yes

Case Number 3 - James Hart

Years of employment at Martin - 4

Number of terms of Union Office per Year of Employment - 1.75

Bowling - no

Softball - no

Time Loss Accident Rate, Days per Month of Employment - No data

Number of Grievances Pressed - 1

Number of Job Evaluation Requests - Not Applicable

Absenteeism - Tardiness - Yes

Disciplinary Action - Yes

Debt Collection Attempts - Yes

Foremmanship - No

Major Theft From Martin - No
Case Number 4 - Marvin Thompson

Years of Employment at Martin - 8
Number of Terms of Union Office per Year of Employment - 0.78
Bowling - Yes
Softball - Yes
Time Loss Accident Rate - Days per Month of Employment - 0.39
Number of Grievances Pressed - 0
Number of Job Evaluation Requests - 0
Absenteeism-Tardiness - No
Disciplinary Action - No
Debt Collection Attempts - No
Foremanship - Yes
Major Theft from Martin - No

Case Number 5 - William McMurtry

Years of Employment with Martin - 8
Number of Terms of Union Office per Year of Employment - 1.00
Bowling - Yes
Softball - Yes
Time Loss Accident Rate, Days per Month of Employment - 1.04
Number of Grievances Pressed - 3
Number of Job Evaluation Requests - 0
Absenteeism-Tardiness - No
Disciplinary Action - No
Debt Collection Attempts - No
Foremanship - No
Major Theft from Martin - No
Case Number 6 - Marvin McNeil

Years of Employment at Martin - 8

Number of Terms of Union Office per Year of Employment - 1.11

Bowling - Yes

Softball - No

Time Loss Accident Rate - Days per Month of Employment - 0.09

Number of Grievances Pressed - 1

Number of Job Evaluation Requests - 1

Absenteeism-Tardiness - Yes

Disciplinary Action - Yes

Debt Collection Attempts - No

Foremarnesship - No

Major Theft from Martin - No

A detailed discussion of the psychological mechanisms involved in the acquisition of high aggression levels and the expression of aggression is beyond the scope of this paper. However, it may be appropriate here to suggest that high aggression levels seem to involve an initial state of dis-satisfaction with one's own status relative to others or with non-receipt of anticipated rewards. The dis-satisfaction seems to activate a desire to raise one's own status or reward level relative to others through either decreasing their status (by hurting them), increasing one's own status (by becoming known for one's accomplishments; or by becoming an object of sympathy and attention on account of having suffered a serious accident). All of these things may be done at once.

Which of various alternate channels is chosen depends upon the interplay of a number of social and psychological factors: which channels are customarily open in the existing situation; the amount of resistance to utilizing each channel; which activities the individual has the necessary qualifications to engage in; the level of the
individual's aggression; the capacity of the various channels to discharge aggression; etc.

In general, the following statements apply:

(a) the higher the individual's aggression level, the greater his propensity to discharge aggression.

(b) the higher the individual's aggression level, the greater the amount of resistance he will be motivated to overcome in utilizing aggression channels.

(c) the higher the individual's aggression level, the more aggression channels will he be motivated to use.

(d) the smaller the capacity of the aggression channels, the more of them will be sought by the individual for discharging aggression.

(e) the individual will utilize first those aggression channels which are most readily available to him (on account of ease of access, social acceptability, possession of the necessary technical skills, etc.).

To illustrate, an individual with many political skills and moderate aggression levels will seek first to discharge his aggression through holding union office and presenting grievances. One with athletic skills would seek to discharge through bowling and softball. A multi-skilled person with very high aggression levels might utilize all available channels from grievance presentation and union office-holding to foremanship and large scale theft. Persons with few skills might first discharge aggression through absenteeism-tardiness and failure to pay debts when due.

(6) **Aggression Generating Mechanisms** - I have already suggested that aggression involves an initial state of dis-satisfaction with one's own status relative to others. If this is so, then situations which give rise to dis-satisfaction with one's own status relative to others or which threaten withdrawal of expected rewards may appropriately
be termed _aggression generating mechanisms_. A job which one considers unsatisfactory would be such an _aggression generating mechanism_; one's status is thereby made inferior to that of other employees. Low on the job communication potentials and short work cycle lengths (see Research Findings - 11, Job Satisfaction) create job dis-satisfaction and, as a secondary effect, create aggression which in turn leads to grievance and union political activity.

Persons who went on Red Circle Rates when the job evaluation programme was initiated were found to engage more in quasi-grievance and quasi-political activities than other employees. This is one sort of _aggression generating situation_ which is a temporary part of the industrial scene but which may have lasting effects. Assuredly many others arise from time to time.

In general we may say that:

(a) Situations, either temporary or permanent, which generate aggression will tend to increase the amount of grievance and union political activity.

(b) Any situation which tends to lower the individual's conception of his own status relative to others or which threatens to withdraw expected rewards, will tend to _generate aggression_.

(c) Jobs which are considered unsatisfactory by the incumbents will tend to act as _aggression generating mechanisms_.

(d) Jobs with low communication potentials will tend to be considered unsatisfactory by the incumbents.

(e) Jobs with short work cycles (short defined as one minute or less) will tend to be considered unsatisfactory by the incumbents.

(7) **Economics** - When company sales in dollars are high and/or when prices of product sold are high, the grievance rate increases. The correlations found suggest the following general statements:
(a) The rate at which employees present grievances varies directly with the unit value and the total value of product sold per unit of time by their employer.

i. The propensity of employees to emit grievances varies directly with the magnitude of their estimates of the demand for their services.

ii. Employees are more strongly motivated to emit grievances by potential personal gain (during periods of economic expansion) than by fear of economic loss (during periods of economic contraction. The motivation to emit grievances is a net value which is the resultant of two opposed forces: the desire for financial gain or to avoid financial loss; and the fear of reprisals from the employer for grievance activity.

Unfortunately, the number of grievances clearly initiated by the company at Martin was too small to discern any significant trends of the rate of emission of grievances from the management side.

(8) Union Politics, etc.: The rate of emission of grievances may be influenced by other considerations of a political nature in which the principals are involved. Other union activities which draw heavily upon the time and energy of the principal union officers involved in grievance handling will tend to depress the grievance rate.

Many management personnel seem to think that the union pushes grievances harder in the months immediately preceding negotiations in order to create issues to build membership morale. Grievance frequency did not indicate any such tendency; however, qualitative aspects of grievances not measured in this study might be found to vary in this manner.
D. Size of Group:

Kuhn finds that grievance activity is under the control of the work group rather than the union organization. At Martin, on the other hand, grievance activity seems to be initiated largely by the in-plant union organization.

This contradiction is puzzling until we consider the sizes of the groups dealt with. Kuhn conducted his studies in plants with thousands of employees in which the smallest department might number a couple of hundred employees. It is these departments to which he refers as groups. Since Martin had an average of around 215 employees, Kuhn's findings are not in contradiction with my own.

While the evidence is still rather sketchy, it would appear that the physical perimeter of a work group created by a building determines the size of the group which will operate as a unit in grievance activity. Most of Kuhn's departments were apparently housed in one building which also served to separate them from others. At Martin, nearly all the employees were housed in one building without being separated by walls. The only major group which was split off by physical barriers was the boom crew. They did, in fact, show some signs of operating independently of the remainder of the union organization.

There are possibly both upper and lower limits to the size of group which can operate effectively as a unit for grievance purposes irrespective of the absence of physical barriers. I have no evidence to present regarding upper limits. However, interviews with union officials turned up the interesting fact that small plants are very troublesome for the union to service. The number of abuses by employers seems to be greater while, at the same time, employees are often quite reluctant to press grievances. Often paid officials have to initiate and push through grievances despite the reluctance of the employees in order to limit
the abuses with which the employer can get away. My impression is that operations with less than 50 employees were considered very bad from this standpoint.

I suspect that one of the more important factors operating here is a sheer scarcity of persons having the type of personality which must engage in grievance and political activities and who have the educational and other qualifications necessary to carry them off successfully. In the small plants, of course, employer-employee relations are also often less impersonal; bonds between owner and some of the employees probably operate to decrease the strength of ties between workers.

E. Weapons:

Most grievances are not important enough that either side would want to resort to the ultimate coercive weapons such as the slowdown, strike, lockout, etc. However, when they are used the choice of weapons may be enormously modified by elements of the permanent institutional structure and the broader society within which it exists.

In the province in which this study was undertaken, labour legislation prohibits strikes except as the final step in contract negotiations. However, despite the possibilities of legal action by employers, these laws do not prevent such unauthorized walkouts. It does, however, seem to very greatly restrict their duration. In unionized plants "wildcat" strikes generally last no more than a few hours; long enough to annoy employers but not long enough to make it worth their while to take legal action.

Although the same labour legislation applies, Olympic employees have never struck and probably have never seriously considered it. In their case a much more potent weapon is available; if their disagreement with management is too serious to be settled by compromise, they simply
fire the management. I have it on good authority that the average term of service of managers of worker owned plants is on the order of $1\frac{1}{2}$ years, a fraction of the usual term in conventional plants.

It seems doubtful whether institutional arrangements or legislation can do very much to influence the quantity of conflict within an industrial establishment. What seems more likely to occur, rather than transformation of war into peace, is the diversion of conflict from one channel into another.

F. A Birdseye View of the Field:

Any attempt to explain grievance activity on the basis of one or two simplistic notions is, it seems to me, destined to fail. There is no simple cause and effect relationship between isolated variables. Rather, there is a large and complex field of heterogeneous factors which, acting together on a number of actors and upon one another, produce a given pattern of grievance activity as a result.

Explaining the state of grievance activity in an industrial setting is somewhat like explaining the mineral content of a body of water. Rainfall, sunshine, wind, soils, vegetation, discharge rate, animal life and a host of other variables must all be considered. Establishing patterns of relationships between them is a major, painstaking, although not insuperable task.

The manner in which the various forces interact within the field is summarized below in the form of a number of general statements largely developed in the preceding pages:

I. MOTIVE FORCES

A. Aggression Levels

1. The higher the individual's aggression level, the greater his propensity to discharge aggression. Grievance activity, union political activity, sports, absenteeism, violation of company rules, failing to
pay debts when due, incurring time-loss accidents, theft, and foremanship are a few of the many channels available for discharging aggression.

2. The higher the individual's aggression level, the greater the amount of resistance he will be motivated to overcome in utilizing aggression channels.

3. The higher the individual's aggression level, the more aggression channels will he be motivated to use.

4. The smaller the capacity of the aggression channels, the more of them will be sought by the individual for discharging aggression.

5. The individual will utilize first those aggression channels which are most readily available to him (channels offering the least resistance).

6. An individual's aggression level tends to decrease with advancing age.

7. Any situation which tends to lower the individual's conception of his own status relative to others, or which threatens to deprive him of anticipated rewards will tend to increase his aggression level.

(a) Unsatisfactory jobs, jobs permitting very little communication, and jobs with very short work cycles tend to act in this manner.

B. Other Motive Forces

1. Individuals will tend to undertake grievance activity to attain important personal rewards or to avoid major personal loss. Financial rewards and losses are among the most important of these.

II. GUIDING FORCES

1. The subject matter of grievances will tend to be in the areas which are most instrumental in determining major rewards and punishments for the individuals concerned.

2. Individuals will tend to utilize those grievance avenues through which they are most likely to favourably alter their personal reward
and punishment balances.

3. Grievance activity will be greatest at those times when economic and other general conditions are such that a high ratio of personal gains to personal losses are likely to result.

4. Distribution of energy: The greater the amount of energy directed by an individual into any particular activity, the less energy will be able to direct into other activities.

III. RESTRAINING FORCES

A. Ability

1. The greater the ability of the individual to perform tasks of a political, administrative, or persuasive nature, the greater the probability of his being selected to represent his fellow employees in union office or in pressing grievances.

B. Prestige -

1. The greater an employee's prestige, the more likely he is to be sought after to hold union office and to press grievances by his fellow employees.

C. Barriers to Participation:

1. A limited number of opportunities for representing other employees in union office and grievance processing are available. Once these openings have been filled there will be little opportunity for subsequently arriving employees to fill positions unless they can clearly demonstrate superior ability in tasks related to representing fellow employees.

2. Employees holding jobs permitting very little communication will be unable to participate effectively in union political activities.
In general:
(a) the less leisure time the employee's job permits,
(b) the fewer sequentially related fellow workers,
(c) the greater the distance to other employees,
(d) the greater the noise level at his and surrounding work positions,
the less will the employee be able to communicate with other employees.

This completes the outline of a theoretical overview of grievance and associated political activity. The picture that has been drawn is one of a large and complex field in which many different forces operate in many different directions, passing through channels of various types and sizes, and limited by barriers of various sorts. While the field serves to channel, accelerate and decelerate, the human input, defined in terms of pre-existing personality attributes is of primary importance in determining the final product. If personality factors are looked upon as one more class of forces, then the grievance output may be said to be the resultant of diverse forces acting in various directions within a field which is partially, and only partially, confined by limits of the institution under consideration.

In closing I shall re-iterate what was stated at the beginning of this section. The theoretical network herein set forth is intended as a guide for further research, rather than as a statement of established "laws" regulating industrial behaviour. While it has drawn heavily on some moderately well established research findings, it has also utilized many ideas which have scarcely been tested at all. If this theoretical overview helps to separate the wheat from the chaff and thereby reduces the ratio of labour to fruitful results in some future research, it will, in my estimation, have served its purpose.
FOOTNOTES

Introduction


4. Sayles, op. cit., p. 43-45

5. Sayles, op. cit., pp. 43-45

6. Sayles, op.cit., p.44

7. Sayles, op. cit., p. 57

8. Sayles, op.cit., p. 58

9. Sayles, op. cit., p. 64

10. Sayles, op. cit., p. 69

11. Sayles, op. cit., p. 69

12. Sayles, op. cit., p. 67

13. Sayles, op. cit., p. 92

14. Sayles, op. cit., p. 46

15. Sayles, op. cit., p. 85

16. Sayles, op. cit., p. 3, pp. 119-142, pp. 94-118

17. Kuhn, op. cit., p. 148

18. Kuhn, op. cit., pp.138-143

19. Kuhn, op. cit., p. 135

20. Kuhn, op. cit., p. 56

21. Kuhn, op. cit., p. 84

22. Kuhn, op. cit., p.74 & 124

23. Kuhn, op. cit., p. 120

24. Kuhn, op. cit., p. 51
Operational Definitions and Methodology

1. A. Zaleznik, Worker Satisfaction and Development, (Boston, Grad. School of Business Administration, Harvard University, 1956)


Research Findings

1. Sayles, op. cit., p. 44

2. Sayles, op. cit., p. 44

3. Sayles, op. cit., p. 43

4. An interesting glimpse of the relationship between accidents and various psychological and physiological factors may be found in: Alfred L. Mosely, Death By Driving, Harvard Medical Alumni Bulletin, Christmas 1961; Also reprinted in "The International Teamster", June 1962


A Theoretical Overview

SELECTED BIBLIOGRAPHY


Murphy Brian C., Situational Determinants of the Amount of Communication Between Workers, Vancouver, 1964 (Unpublished Manuscript).


Zaleznik A., Worker Satisfaction and Development, (Boston, Graduate School of Business Administration, Harvard University, 1956).