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THE FIRST-LINE SUPERVISOR:
LITERATURE REVIEW

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THE FIRST-LINE SUPERVISOR: LITERATURE REVIEW

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    The first-line supervisor is generally considered critical to good organizational functioning. The extant literature on first-line supervisors was reviewed to gain an understanding of the position and to make recommendations for improving supervisory effectiveness in the future. A review of the history of the position reveals a significant loss of autonomy as external influences have eroded the first-line supervisor's power. A list of activities currently found in the first-line supervisor position and a table of leader behaviors associated with subordinate performance and attitudes are presented,

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the difficulties of using participative leadership at the first-line supervisory level are examined, and the applicability of the general leadership literature to first-line supervision is discussed. Peer relationships were found to be important, but not engaged or facilitated in most organizations. Training programs for first-line supervisors are described and recommended program content presented. First-line supervisory role and status conflicts were found to create numerous problems for the supervisor. Future impacts on the first-line supervisor are predicted to be continued influence of staff specialists, the growth of participative management techniques, and greater impact of computer-driven automation and information management.

FOREWORD

This project (WR00033) was conducted to continue developing an understanding of ways to improve the management of Navy organizations, especially shore establishments staffed primarily with civilians. Past research has demonstrated that the first-line supervisor has an important influence on Navy organizations and that a number of critical problems exist with respect to this function. This project was conducted specifically in support of a project to improve the way workers will be managed in the Navy's newest supply system, the naval integrated storage, tracking, and retrieval system (NISTARS). It is believed that the success of NISTARS will be strongly influenced by how effective its first-line supervisors will be in managing within these new, high technology conditions.

The project was accomplished by a contract between the Department of the Army and Battelle Memorial Institute (DAAG29-81-D-0100). The first two authors are with the School of Business Administration, University of Southern California. The contracting officer's technical representative was Dr. Laurie A. Broedling.

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SUMMARY

Problem

First-line supervision is universally considered to be critical to the effective operation of business, government, military, and all other types of organization. In the Navy, for example, first-line supervisors are directly responsible for seeing that the directions from the entire managerial structure, from the commander-in-chief on down, are translated into actual work output. This indeed is a singular responsibility. Yet, there are strong indications that problems with first-level supervision are widespread.

Purpose

The purpose of this effort was to review the literature to find out what is known about first-line supervision.

Approach

A large sampling of the material on the topic of first-line supervision was gathered and empirical material that met with a minimum degree of rigor was reviewed. The majority of this literature was not included because it was not empirical—it presented one person's experiences or armchair speculation—or its empirical approach was clearly unsatisfactory. In addition, where applicable, the general literature on leadership and management was drawn upon to validate the initial findings and supplement where necessary.

Results and Discussion

Overall, the findings show that the first-line supervisory position has gradually changed over the years from a fairly powerful, independent position to a position of reactivity and low autonomy that is subjected to a number of role and status conflicts.

The detailed findings are discussed in four sections.

1. Functions and Behaviors. The supervisor's functions and behaviors (i.e., the leadership and management performed), their evaluation, and the characteristic activities of today's first-line supervisors are described. The effects of various supervisory styles and behaviors on subordinates' attitudes and other organizational outcomes are summarized. Of particular interest are the effects of various participatory leadership practices that are difficult for most supervisors to utilize effectively. Strong lateral (i.e., peer) relationships were found to be important to effective supervisory functioning, yet few organizations systematically foster such relationships.

2. Selection and Training. The literature on supervisory selection is very sparse, which is surprising given the importance and difficulty of selecting qualified people for these positions. With respect to training, a recommended program content for first-level supervisory training is presented. The delivery method of most training is traditional, cognitive, classroom teaching, which has been heavily criticized. Some newer, more auspicious methods for supervisory training—behavioral modeling and assessment centers--are described.

3. Role and Status Conflicts. Such conflicts exist in most first-line supervisory positions. For example, a conflict results from the fact that, while supervisors are

technically part of management, they are rarely treated as such. They tend to be excluded from meaningful decision making and rarely receive the "perks" or status symbols given to higher management.

4. <u>Future Trends</u>. Three major trends for the future are the continuing growth of specialized staffs in organizations, an emphasis on participative practices and decentralization, and the introduction of advanced, computer-driven automation. While the effects of these trends on the first-line supervisory position will be mixed if no actions are taken to the contrary, the end result is likely to be even further erosion of the authority of the position.

Conclusions and Recommendations

The supervisory position is critical to organizational functioning; however, it is probably the most difficult position to perform effectively. Therefore, more gains are likely to result from improving this critical, yet beleaguered, position than any other position in the organizational hierarchy.

Better selection, training, and evaluation can improve the skills of incumbent supervisors. Supervisory selection in particular, given the paucity of literature and systematic techniques, is an area badly in need of attention. Another and more important way, however, is to restructure the position, along with its role, authorities, and responsibilities. The most carefully selected and trained ("best") individuals cannot be effective in an untenable position. Most of the steps organizations can take to do this revolve around the tenet of making authority commensurate with responsibility. More drastic steps that are frequently becoming more appropriate include a fundamental change in the purpose of the position and redistribution of the functions, as is the case in autonomous work groups.

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INTRODUCTION

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First-line supervision is universally considered to be critical to the effective operation of business, government, military, and all other types or organization. Yet, there are strong indications that problems with first-line supervision are widespread. The first-line supervisory position has been viewed as problematic by nearly everyone who has studied it.

In the Navy, first-line supervisors are directly responsible for seeing that directions from the entire managerial structure, from the commander-in-chief on down, are translated into actual work output. This indeed is a singular responsibility. However, there are problems with the way this position functions, especially in the Navy's industrial sector (Broedling, Crawford, Kissler, Mohr, Newman, White, Williams, Young, & Koslowski, 1980; Koslowski, 1981). Typically, the first-line supervisor is faced with a large number of independent and sometimes conflicting demands, often without the authority (or at least the perceived authority) to meet the varied requirements.

Purpose

The purpose of this effort was to determine what is known about first-line supervisors. Conclusions are drawn about supervisory functioning, and recommendations about how to improve it are made. Also, gaps in our knowledge about first-line supervision are identified.

APPROACH

"First-line supervision" is a general term that encompasses all positions in the private and public sector at the first management level. These positions may be either staff or line. "Foreman" is a special term that denotes first-line supervisors who work in production plants, construction, or other industries having their origins early in the industrial revolution. "Office manager" is a term used in more modern organizational settings and is usually used in connection with first-line supervisors of service functions, clerical staffs, etc.

Regardless of setting, the position requires the organizing, distributing, and controlling of workers' tasks. Turner (1954), Dowell and Wexley (1978), and others have commented that the job characteristics of first-line supervisors are fairly generalizable across different industry types. Therefore, the following material is generally appropriate to the first-line supervisory position in both the public and private sectors and in both product and service industries.

Journals that have published articles on first-line supervision on a relatively frequent basis (e.g., Personnel and Harvard Business Review) were perused beginning with issues dating from 1950. Other journals that have published articles in the field of management (e.g., Administrative Science Quarterly, Personnel Psychology, and Organizational Behavior and Human Performance) were scanned for articles dealing with first-line supervision or with research studies that used first-line supervisors as subjects. Any relevant article found was used to locate additional articles. Books related to first-line supervision were

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obtained through library card catalogs, reference lists, and bibliographies. Finally, a computer search was implemented through the University of Southern California Crocker Library using several sources of literature and a broad list of key words dealing with first-line supervisors and foremen.

All articles dealing with the topic area were first scanned for relevance to the task at hand and for a <u>minimum</u> degree of rigor in presentation. Much of the literature on first-line supervision was found to be the result of singular experiences with little if any empirical data on which to base conclusions. Only literature that met minimum empirical criteria was reviewed. To draw conclusions, the literature retained in the first step was grouped into common themes. In this manner, although an argument in an individual article or book could not be said to be soundly demonstrated, the argument was accepted in some cases as a result of the weight of evidence. Finally, the general literature of leadership and management was examined for more valid support of the consensual conclusions. Any theme or issue that was also supported by the general literature was included herein.

RESULTS

Functions and Activities

History of First-line Supervision

To understand the problems and tensions associated with the first-line supervisory position today, it is first necessary to know how the position was originally intended to function and how it used to be. In the early days of the industrial age, the foreman, as the position was commonly called, typically acted as a wholly independent contractor to a manufacturing plant owner. The foreman hired members of his[1] crew, instructed them in the performance of their tasks, supervised their efforts, and paid them their wages if he was satisfied, or dismissed them from duty if he was not. No one--not the government, the union, or the organization to whom he contracted his services--told the foreman how to do his job.

The independence of the first-line supervisor has been encroached upon by:

1. The widespread acceptance of Frederick Taylor's concept of scientific management. Taylor introduced his "one best way" conception of job design around the turn of the century (1911). As part of this conception, he popularized the notion of "functional foremanship," whereby the planning of activities was to be distinct from the carrying out of those activities, and workers would report to any number of foremen, depending upon which aspects of the task were involved. While the functional foremanship was never widely adopted in Taylor's original form (because of the presumably adverse effects upon the principle of unity of command), Taylor's writings, along with those of Fayol, Mooney, Urwick, and other classical management theorists, limited the scope and discretion of the foreman's role by transferring many of the responsibilities from the foreman to upper management. Organizations began to take over responsibility for selection and training of workers, and foremen as well as workers came increasingly under organizational control, with the foreman playing the role of the "man in the middle" between labor and management.

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[1]Virtually all foremen were male.

2. The developing strength of the labor union movement. As workers united to form unions to negotiate wages and improve working conditions, union representatives and higher-level management took over much of what was previously within the worker-foreman relationship. Whereas Taylor had helped to narrow the foreman's scope of responsibility and simplify the technical aspects of his work, the growth of unionism further complicated matters by introducing a new power structure with which the foreman had to cope. As Sasser and Leonard (1980) pointed out:

> It has become increasingly difficult to hire or fire without union involvement. Hiring often has to come from the union list; firing has to follow a strict interpretation of the contract, often requiring a number of warnings. Layoffs are normally by seniority, not according to productivity. Disciplinary action was formally taken away from the prerogative of the first-line supervisor's judgment . . . And, even when the strict letter of the contract is followed, grievances are often filed by the union steward. (p. 116)

3. The steady increase in staff influence and power. Personnel staffs gradually took over much of the responsibility for hiring and training, while industrial engineers became responsible for managing the technology-worker interface. Many organizations today have departments of quality assurance, production planning, cost accounting, and industrial engineering to do the work that foremen used to do.

4. The rapidly increasing rate of technological change. A recent Business Week (1983) reported that computer-based technology would take "the control and monitoring of production flow and quality out of the foreman's hands" (p. 74). As Sasser and Leonard (1980) pointed out:

> New products and processes abound--computers, plastic molding, electronic test equipment, temperature-and-pressure-sensitive distillation, component machining, complex metal alloy foundries, acoustic devices, and synthetic rubber, to name but a few. (p. 114)

While this list emphasizes the likely "future shock" on manufacturing foremen, a similarly impressive roster of changes could be amassed with respect to white-collar operations, as first-line supervisors attempt to adjust to the "office of the future." It is, therefore, all but impossible for foremen to have a full understanding of all the complex equipment and processes for which they are responsible.

5. The increasingly active role of government. For example, Cummings (1975) pointed out that:

> Such agencies as OSHA, EEOC, and EPA have stripped away a vast majority of the first-line supervisor's authority, but, in turn, have increased responsibilities to conform to these outside imposed regulations. (p. 450)

6. The changing demographics of the work force, at least in the United States. Business Week (1983) noted "increasingly younger workers come on the job with computer literacy and a better understanding of electronics than their supervisors have" (p. 74). In Taylor's day, a considerable portion of the work force consisted of poorly educated individuals, many of them recent immigrants. However, this is no longer the case. The level of sophistication of the foreman's subordinates has risen along with their level of

education. By way of contrast, consider Shrank's (1982) reminder that the fences around many industrial plants at the turn-of-the-century were intended not to keep outsiders away, but to keep workers in. Workers were often farm hands, seduced or coerced by foremen to work in the labor-short industrial plants. They tended to find the work undesirable and would occasionally wander back to the farm or elsewhere. Because the supply of labor was important to the foreman's success, he spent considerable time pursuing the footloose laborers in taverns or pulling them from their beds and herding them back to the plant.

Not only has the foreman lost whatever edge in formal education he once enjoyed, making it harder to exercise authority, but the heterogeneity of the work force has also increased sharply. As a result of "the graying of America," as well as the many recent challenges to mandatory retirement policies, the age spread of American workers has widened. Also, the number of women and minorities in the work force continues to increase. This means that, in general, the first-line supervisor has a greater variety of subordinates to deal with and to satisfy.

First-line Supervisor's Job Today: Its Functions and Activities

According to Patten (1968), the first-line supervisory position today is usually salaried and is responsible for supervising hourly employes. Also, the position is managerial and is responsible for supervising nonmanagerial workers. To a considerable extent, the inherent conflicts and tensions associated with the position are evident from Patten's description. From the historical standpoint, the following definition of the supervisory position presented in the Taft-Hartley Act (Section 2 (11)) is even more revealing:

> The term "supervisor" means any individual with authority, in the interest of the employer, to hire, transfer, suspend, lay off, recall, promote, discharge, assign, reward, or discipline other employees, or responsibility to direct them, or to adjust their grievances, or effectively to recommend such action.

The irony in this definition stems from the fact that the first-line supervisor may be responsible for these actions in most organizations, but is denied authority over them, partly by legislation such as Taft-Hartley Act.

Specific first-line supervisory activities necessarily vary with the industry, technology, size of organization, experience of the work force, and numerous other aspects of the setting in which the supervisor is employed. Nevertheless, research has identified a number of activities (functions) generic to the first-line supervisor's position. Table 1 lists typical supervisory activities. The number of references given for each activity indicates how many research studies included this activity as descriptive of the position. Consistent with earlier observations made herein, relatively few references are given for selection, training, and union relations. The fact that performance appraisal is not listed supports the contention that others within the organization, in particular various staff personnel, have substantially taken over many activities once associated with the foreman's job.

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Table 1

Characteristic Activities of the First-line Supervisor's Job

Activity	References
1. Planning and scheduling work, documentation of records and reports	Mandell and Duckworth, 1955; Evans, 1957; Kay, 1959; Prien, 1963; Bare, 1978; Dowell and Wexley, 1978
2. Carrying out "human relations," counseling	Mandell and Duckworth, 1955; Evans, 1957; Guest, 1956; Bare, 1978; Dowell and Wexley, 1978; Wolz, 1980
3. Coordination and control, organizing subordinates' work	Mandell and Duckworth, 1955; Evans, 1957; Guest, 1956; Bare, 1978; Prien, 1963; Dowell and Wexley, 1978; Wolz, 1980
4. Maintaining external relations	Guest, 1956; Jasinski, 1956; Bare, 1978; Wolz, 1980
5. Managing performance-reward contingencies	Patchen, 1962; Bare, 1978; Wolz, 1980
6. Maintaining quality and efficiency	Evans, 1957; Kay, 1959; Prien, 1963; Dowell and Wexley, 1978
7. Maintaining safety and cleanliness	Dowell and Wexley, 1978; Wolz, 1980
8. Maintaining machinery and equipment	Evans, 1957; Dowell and Wexley, 1978
9. Selecting employees	Bare, 1978; Wolz, 1980
10. Training employees	Evans, 1957; Bare, 1978
11. Stimulating suggestions	Wolz, 1980
12. Maintaining union-management relations	Prien, 1963

Supervisory Behaviors: Their Correlates and Consequences

Many studies concerned with the actual behaviors (actions) of first-line supervisors have examined a number of leadership styles, their correlates and consequences. In other words, they relate supervisory behavior to subordinate satisfaction, morale, cohesion and withdrawal, work group productivity, and foreman effectiveness. Table 2 summarizes these studies. It should be noted that many variables did not correlate systematically with subordinate attitudes and performance. Among these are such demographics as age and experience (cf., Child, 1980), education and length of service (cf., Westerland & Stromberg, 1965), as well as many measures of supervisory behavior.

Still other variables affected subordinate attitudes and performance consistently only after certain contingency variables were taken into account. For example, Patchen (1962) found "encouraging efficiency" positively related to improved group performance norms when the foreman was seen as willing to "go to bat" for subordinates. When the foreman was not so viewed, "encouraging efficiency" had a negative effect upon performance norms.

Table 2

First-line Supervisor Behaviors Associated With
Subordinate Attitudes and Performance

Supervisor Behavior	Dependent Variable	Citation
1. Accepts criticism and suggestions	Respondent's ratings of effective foreman behavior	Kay, 1959
2. Lets subordinates know what (s)he thinks of their work	Boss' ratings of first-line supervisor's performance	Mann and Dent, 1954
3. Displays flexibility	Boss' ratings of first-line supervisor's performance	Child, 1980
4. Goes to bat for subordinates, recommends promotions	Boss' ratings of first-line supervisor's performance	Mann and Dent, 1954
5. Emphasizes production, gives direction, plans operations	Profit, outsider ratings, subordinate' descriptions of ideal foremanship	Kay, 1959; Colyer, 1951; Yukl and Kanuk, 1979
6. Follows instructions, company policies, chain of command	Respondent's ratings of effective first-line supervisor's behavior	Kay, 1959
7. Keeps boss informed	Boss' ratings of first-line supervisor's performance	Child, 1980
8. Gives praise verbally to subordinates and in reports to bosses	Boss' and respondent's ratings of first-line supervisor's performance	Mann and Dent, 1954; Kay, 1959
9. Develops subordinates, trains subordinates for better jobs	Boss' and respondent's ratings of first-line supervisor's performance	Mann and Dent, 1954; Kay, 1959
10. Uses rewards and punishments	Profit, outsider ratings	Patchen, 1962; Yukl and Kanuk, 1979
11. Displays competence in human relations	Subordinate satisfaction with the supervisor	Mann and Hoffman, 1960
12. Creates a climate whereby subordinates feel free to discuss problems with the leader	Productivity, absenteeism, boss' ratings of first-line supervisor's performance	Mann and Baumgartel, 1953; Kahn and Katz, 1953; Mann and Dent, 1954
13. Displays technical knowledge of task	Subordinate's descriptions of ideal foremanship	Colyer, 1951; Turner, 1955; Sasser and Leonard, 1980
14. Displays consideration and egalitarianism, uses tact and diplomacy, uses general supervision	Grievances, turnover, boss' and respondent's ratings of first-line supervisor's performance	Mann and Dent, 1954; Kay, 1959; Fleishman and Harris, 1962
15. Identifies with higher management	Boss' ratings of effective foremanship	Balma, Maloney, and Lawshe, 1958[a]
16. Holds different perceptions of most and least preferred co-worker	Objective measure of group performance	Cleven and Fiedler, 1956[a]

[a]These studies investigated the effects of leader perceptions rather than behaviors.

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In fact, Table 2 shows that specific behaviors do lead to improved or high subordinate performance and/or ratings of first-line supervisors by their superiors. This is important in supervisor performance evaluation and training. Table 2 also shows that supportive or participative leadership often has a positive impact upon subordinate absence, lateness, grievances, and turnover--although it seldom improves productivity (cf., Kerr, Schriesheim, Murphy, & Stogdill, 1974). However, the general literature on leadership reveals, and the specific literature on first-line supervision confirms, the subtle interplays between supportive, participative leadership and many other variables. For example, Parker (1963) found that leader consideration toward subordinates improved attitudes toward supervision, but was unrelated to group performance. Fleishman and Harris (1962) showed that, if leader consideration was low, subordinates would produce high levels of grievances and turnover irrespective of the foreman's level of initiating structure. On the other hand, highly considerate foremen could initiate considerable structure (see p. 8) without accompanying gains in grievances and turnover. Cummins (1971) and Lahat-Mandelbaum and Kipnis (1973), using such criteria as quality, productivity, and satisfaction, reported similar findings.

The question of how much "social mixing" is appropriate is related to participative leadership and is particularly important to the first-line supervisor. Remember that, in most cases, the first-line supervisor was once employed at the level of those he or she is now supervising. In some cases, the first-line supervisor was actually a member of the particular peer group he or she is now responsible for and had enjoyed the company of these people as friends and equals. Therefore, it is important for the first-line supervisor to prevent subordinate perceptions of politics, favoritism, and diluted authority (Colyer, 1951) by creating social differentiation from erstwhile colleagues (Karp, 1981).

Participative leadership for the first-line supervisor can be a particular problem in mass-production industries. Patten (1968) points out the difficulties in pulling people away from machine-paced operations to attend meetings or have discussions. Also, participation sometimes is difficult to use effectively within the union contract. Of course, many attempts at participation have been successful in mass-production, union-ized plants, but even some recent quality circles have run afoul of union requirements when the contract severely limits the discretion of the foreman in relating to the worker. Patten (1968) describes another potential impediment:

> By having their work fractionalized . . . most hourly workers . . . have a minimum of contact with one another. There is no reason for them to work interdependently. As a consequence, the foreman in many respects deals with an aggregate of men or women working independently of one another, rather than with an integrated team working together and assisting one another. (p. 51)

Since the existence of shared goals and values is central to group-based participative leadership (cf., Vroom & Yetton, 1973), Patten's description means that group-based participation is less likely to be effective. Other factors peculiar to first-line supervision make one-on-one styles of participative leadership difficult to apply. For example, Woodward found in her classic study (1958) that the median span of control for first-line supervisors was between 11 and 20 subordinates in continuous process firms; between 21 and 30, in unit production firms; and between 41 and 50, in mass-production industries. Given such large spans of control, it is hardly surprising to learn, as did Parker (1963), that larger groups tend to be led by first-line supervisors who are higher in initiating structure than they are in participation. Foremen not only have to manage large numbers of subordinates, but also interact with a number of people:

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> In any mass production industry the foreman each day is likely to be interacting (1) with his boss, the man to whom he formally reports in the line organization; (2) with certain staff specialists, varying from one to a dozen people depending on the size and kind of organization--production control men, inspectors, standards men, efficiency engineers, maintenance and repair men, methods men, personnel men, counselors; (3) with the heads of other departments to which his department relates . . . and, in a union organized plant, with the shop steward. (Roethlisberger, 1945, p. 286)

Thus, it is one thing for leadership theorists to recommend participative, supportive, and other heavily labor-intensive leadership styles, but quite another for most first-line supervisors to find the time, the means, and the shared goals and values necessary to use these styles effectively.

Supporting Information from the General Leadership Literature

The Ohio State leadership studies, performed over more than 30 years, were concerned mainly with two dimensions of leader behavior, consideration and initiating structure. According to Fleishman and Peters (1962):

> Consideration reflects the extent to which an individual is likely to have job relationships characterized by mutual trust, respect for subordinates' ideas, and consideration of their feelings.

> Initiating Structure reflects the extent to which an individual is likely to define and structure his role and those of his subordinates toward goal attainment. (p. 130)

These two leadership dimensions are most commonly measured using the Leader Behavior Description Questionnaire, form XII (Stogdill, 1963), which measures subordinate perceptions of the leader. Consideration relates to participation, egalitarianism, human relations, and creation of an open, friendly climate. Initiating structure relates to planning, giving direction, and letting subordinates know what the leader thinks of their work. Table 2 shows that these behaviors have been found to be related to subordinate attitudes and/or performance.

The following criteria[2] have consistently been associated with leader consideration and participation, regardless of whether or not the leader is in a first-line supervisory position: subordinate satisfaction (House, Filley, & Kerr, 1971), intragroup harmony and member cooperation (Oaklander & Fleishman, 1964), and low rates of grievances and turnover (Fleishman & Harris, 1962). Participative, supportive leadership has been found to be positively related to subordinate attitudes and satisfaction in industrial plants (Comrey, Pfiffner, & High, 1954), military settings (Spector, Clark, & Glickman, 1960), research laboratories (House et al., 1971), forestry worker groups (Comrey et al., 1954), educational institutions (Hemphill, 1957), and governmental organizations (Comrey et al., 1954).

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[2]Only representative citations are given; many more could be included.

Leaders high in initiating structure have consistently been rated highly by their superiors and had high scores on such objective measures of performance as cost, scrap rates, and unit productivity (Harris, 1952; Halpin & Winer, 1957). Comrey et al. (1954) obtained these findings for aircraft supervisors, forest rangers, and government administrators. For some of these favorable results to derive from leader initiating structure, however, as mentioned earlier, it is necessary that a leader be at least reasonably high in consideration; that is, the worker must feel some concern on the part of the supervisor.

A number of contingent relationships have also been identified between leader behavior and outcomes. For example, the following contingent relationships have been summarized in Kerr et al.:

> The greater the pressure, the greater the likelihood that a leader's initiating structure will be associated with higher work group performance and higher subordinate satisfaction. While some operationalizations of "pressure" (e.g., task demands, interunit stress) do not seem particularly relevant to first-line supervision, other operationalizations (e.g., time urgency, physical danger) do seem to be particularly relevant.

> The lower the intrinsic satisfaction provided by a task, the greater will be the positive relationship between leader consideration and subordinate satisfaction, the greater will be the positive relationship between leader initiating structure and subordinate performance, and the greater will be the negative relationship between leader structure and subordinate satisfaction. This finding is at the heart of the Path-Goal Theory of leadership (House, 1971), and seems particularly pertinent to low-level tasks of the kind managed by first-line supervision.

> The less ambiguous a task, the less positive will be the relationship between leader initiating structure and subordinate satisfaction. This is another central premise of Path-Goal Theory, and seems relevant to first-line supervision in view of the fact that low-level organizational tasks are more likely to be repetitive and highly structured.

> The larger the size of a work group, the greater will be the group's acceptance of a leader's initiating structure. In general, as illustrated in our earlier discussion of Woodward's (1958) study, leader span of control tends to be quite high at the first-line supervisory level.

> The greater the perceived upward influence of a leader, the stronger will be the positive relationship between leader consideration and subordinate satisfaction. For reasons already introduced in this paper, and which will be emphasized shortly, most first-line supervisors are quite unlikely to be viewed as high in upward influence. (1974, p. 73)

While Path-Goal Theory (House, 1971) and the Ohio State leadership studies seem to offer the most clear-cut prescriptions for first-line supervision, other leadership research efforts may also be relevant. For example, whether or not tasks are structured is important to the Path-Goal Theory, as well as to the Vroom and Yetton (1973) model of

leadership and the Fiedler (1967) contingency model. The Vroom-Yetton model provides five specific leader behaviors for given situations analyzed through a decision tree process. Fiedler's contingency model relates leadership style (ranging from task-directed to human-relations-oriented) to the favorableness of the situation (the leader-member relationship, the degree of task structure, and the leader's position power obtained through formal authority). Fiedler argues that a leader's power of position is typically low at the first-line supervisory position, which lessens the favorableness of the situation. Finally, though defined and operationalized somewhat differently, the University of Michigan leadership studies (cf., Bowers & Seashore, 1966), the Yukl multiple-linkage model of leader effectiveness (1981), Hersey and Blanchard's situational leadership theory (1977), and other popular models of leadership contain a general articulation of participative/supportive leadership as well as task oriented/structuring leadership and, to some degree, support the general pattern of relationships reported herein--though in Fiedler's model, task structure and position power interact in rather complex ways with leader-member relations.

Litte research exists on the topic of why leaders tend to select different leadership styles. Some theorists attribute choice of style primarily to relatively stable personality attributes, while others consider situational factors of paramount importance. One convergent finding of potentially great importance to first-line supervision is that the desires and expectations of higher management appear to play a large part in determining a low-level supervisor's leadership style. For example, Fleishman (1951, 1953) found that, the less foremen perceived their bosses desired "consideration," the higher were the grievance rates in the groups the foremen supervised. Fleishman, Harris, and Burtt (1955), in their analysis of a first-line supervisory training program that failed to change leader behaviors, found training was less a conditioner of subsequent leader behavior than were the cues from higher management in the office or plant. In other words, first-line supervisors do as their managers do. Fleishman, as well as Rambo (1958), also found that the consideration and initiating structure scores of first-line supervisors were positively and significantly related. Finally, Pfeffer, and Salancik (1975) found that the expectations of superiors were the most important determinant of first-line supervisors' work behaviors (related to the task)--though subordinate expectations were the most important determinant of supervisors' social behaviors (related to the nontask communication).

Participative Decision Making in Work Groups

Subordinate participation in decision making can be considered a continuum that runs from autocracy to anarchy. In the preceding section, "participation" was used in the sense defined by Vroom:

> You share a problem with your subordinates as a group. Together you generate and evaluate alternatives and attempt to reach agreement (consensus) on a solution. Your role is much like that of chairman. You do not try to influence the group to adopt "your" solution and you are willing to accept and implement any solution that has the support of the entire group. (1974, p. 50)

Although this description is the least autocratic of the leadership styles catalogued by Vroom and Yetton, leaders who employ this style are involved in their subordinates' decision-making process from start to finish. Through participation in the generation and evaluation of alternatives, leaders retain the power to prevent consideration of alternatives they deem unacceptable. By requiring subordinate unanimity for the group's solution to be adopted, leaders often must make the eventual decision. Leaders employing this

style also retain the power to set time limits for group discussion, thus limiting and even eliminating evaluation of alternatives that the group might otherwise find attractive.

A number of researchers have taken the concept of subordinate participation a great deal further by asking, "How important is the presence of a supervisor to a work group's performance? Could a work group function as well, or even better, if organized to be autonomous; that is, self-governing?" Self-governing means that the group makes its own decisions and the supervisor holds it accountable only for results, not for method. In any case, there is a supervisor to whom the group reports. Bass and Shackleton (1979) refer to the idea of autonomous work groups as constituting "direct participation," because of its underlying concern:

> With the actual day-to-day content of a worker's job. Its aim is to increase autonomy and decision-making discretion as much as possible. Workers often take responsibility for their own inspection and process control and may be self-managing from receipt of orders to inspection dispatch. (p. 394)

Bass and Shackleton maintain that autonomous work groups have become more popular in a number of European countries than in the United States. In the same vein, O'Toole (1981, p. 61) has pointed out that "in general, American workers appear to be over-supervised. At the Honda car plant, the ratio of supervisor/inspectors to production workers is 1:200. In some U.S. car plants, the ratio is 1:10."

Of course, few writers maintain that autonomous work groups are suitable for all work situations. Cummings (1978) described the following situational parameters that help determine when autonomous work groups will be successful: (1) a relatively distinct, whole task, (2) members who each possess a variety of skills that are relevant to the group's task, (3) worker discretion over such decisions as task schedule, work methods, and assignment of members to tasks, and (4) compensation and performance feedback awarded to the group as a whole. Hackman underscored (1977) the last point by cautioning that autonomous work groups function better when the pay of group members is contingent upon group performance rather than on the performance of individual group members.

The limited evidence concerning the productivity of autonomous work groups suggests that they can be effective (cf., Cummings, Malloy, & Glen, 1977). The data pertaining to how first-line supervisors take to the idea of autonomous work groups, although even more limited, suggest that supervisors view the concept with some reservations. Walton and Schlesinger (1979) found that first-line supervisors felt unrewarded for good group performance (since higher management attributed favorable results to the participative management system), but blamed for poor performance. The authors stated that problems with worker participation tended to stem from inaccurate expectations of results, inadequate selection of supervisors, inadequate supervisory training in participative management techniques, failing to link supervisory evaluation and reward to team development, and absence of plans to utilize freed supervisory time. The last reason may be more important than is often realized, since first-line supervisors may view the concepts of participative leadership, specifically autonomous work groups, as threats to their job security.

In the presence of autonomous work groups, what remains for the first-line supervisor to do? According to Cummings (1978), the two remaining key supervisory functions are developing group members and helping the group to maintain its boundaries, which he pointed out are not traditionally assigned to first-line supervisors--a point made earlier

herein. Therefore, many supervisors are likely to be uncomfortable with these responsibilities.

Table 3 indicates how creating autonomous work groups might impact on the supervisory activities in Table 1. As can be seen from Table 3, the creation of autonomous work groups should not pose a threat to first-line supervisors' job security, since a great deal remains for them to do. Autonomous work groups do, however, present a threat to those supervisors who lack the foresight and the flexibility to reconceptualize their roles and responsibilities.

Table 3

Likely Impact of Autonomous Work Groups on Characteristic
Activities of the First-line Supervisor

Activity	Likely Impact
1. Planning and scheduling work, documentation of records and reports	Less supervisory time. Supervisors may only document output.
2. Carrying out "human relations," counseling	At least as much supervisory time, as supervisors must facilitate group interaction.
3. Coordination and control, organizing subordinates' work	Much less supervisory time.
4. Maintaining external relations	More supervisory time, particularly for management of boundaries.
5. Managing performance-reward contingencies	Change in orientation from individual- to group-based systems.
6. Maintaining quality and efficiency	Less supervisory time.
7. Maintaining safety and cleanliness	Less supervisory time.
8. Maintaining machinery and equipment	Less supervisory time.
9. Selecting employees	Slight increase in supervisory time to include subordinates in process.
10. Training employees	Slight increase in time due to change in nature of training.
11. Stimulating suggestions	Less supervisory time due to the nature of participation.
12. Maintaining union-management relations	No change in supervisory time. Ideally there will be fewer labor-management confrontations, but more supervisory time may be spent in negotiations as the group's representative.

Peer Relations Among Supervisors

Possibly one of the duties most first-line supervisors spend the least time on is that of interacting with their peers--in particular, with their fellow supervisors. Jasinski found in a thought-provoking study that the most successful foreman spent the least time with their own subordinates (1956). Specifically, 54 percent of effective supervisors' interaction time was spent outside their work group. However, it is impossible from this study to say whether this pattern of interaction is primarily the cause, as opposed to the result, of effective group performance.

Data on the amount of time a first-line supervisor spends with peers differ sharply--and many studies report a single percentage that reflects superior, as well as collegial, interactions. Guest (1956) reported that foremen spent 7 percent of their total time with other foremen and 30 percent of their contact time outside the work unit. Consistent with Jasinski, Guest noted that the better foreman had more contact time. As to the specific nature of first-line supervisory peer interactions, very little is known. In Jasinski's study, nearly 75 percent of the contacts with other foremen were with the foreman contiguously situated along the production line. Foremen spoke to one another primarily about product quality (35.8% of the interaction incidents), followed by work progress and personnel administration concerns. In another study (by Latham, Fay, & Saari, 1979), higher management personnel observed their first-line supervisors interact 38 times with bosses and subordinates and only 3 times with their peers. As has been pointed out many times (cf., Roethlisberger, 1945; Jasinski, 1956), organizations seldom show much concern in either their task design or their supervisory training programs for the importance of lateral relationships. Yet, several studies (cf., Kay, 1959) have pointed out the importance of good lateral relationships to effective foremanship.

First-line Supervisor Relationships with Superiors

Another area of importance to the effectiveness of the first-line supervisor in which research is lacking is the relationship of the supervisor with his (or her) superiors. Pelz (1952) found in a study of 8000 nonsupervisory employees that the employee's supervisor's "influence within the department" was the critical factor in the employee's job satisfaction. Influence was described as how much weight the supervisor swings, and whether he or she can obtain needed resources on time, get the best work, and obtain favors for the employees.

Kay (1959) found relationships with equals and superiors to be one of three basic activities of first-line supervision. Likewise, Mandell, and Duckworth (1955) found that a third of the first-line supervisor's time was spent with "supervisors, staff officials, and colleagues," which agreed with the findings of Latham, Fay, and Saari (1979).

While the importance of this relationship has been cited (although infrequently) the relationship itself is not readily understood. Pelz (1952) noted that employee satisfaction was high when the first-line supervisor had much influence in the department and tried to be helpful to the employee, but employee satisfaction was low when the supervisor had little influence and tried to be helpful. On the other hand, employee satisfaction was high when the supervisor had little influence and was restrained in his or her behavior, but employee satisfaction was low when the supervisor had much influence and was restrained in his or her behavior. Influence was the moderating factor in the relationship between employee satisfaction and first-line supervisor behavior.

No information on how to manage this relationship or improve the influence of the first-line supervisor with his or her superior was found. No training program in which "influence with superiors" was a topic of discussion was described. Although this relationship is cited as critical to the first-line supervisor's effectiveness, the first-line supervisor is left to his or her own devices in managing it.

Selection and Training of Supervisors

Supervisory Selection

The literature is sparse about how an organization selects a worker from the ranks who typically has had no opportunity to be observed as a supervisor.[3] Wolz (1980) identified the following as essential skills in a worker who is to be selected as a supervisor: verbal communication ability, interpersonal relationship skills, reading comprehension, and numerical computation ability. However, he provided no objective criteria for these measures.

Turner and Utley (1979) described a process for selecting foremen at Alcan Smelters and Chemicals that reflected the recommendations of the limited literature existing in this area. The first step in the Alcan program is to identify the following dimensions for assessing foreman candidates: leadership, organizing skills, practical intelligence, flexibility, initiative, problem confrontation, oral communication skill, listening skill, decisiveness, management control, stress tolerance, interpersonal sensitivity, ability to learn, and motivation to work. (Note that Turner and Utley presented no objective (unbiased and measurable) criteria and mixed traits and behaviors in their dimensions.) In addition to these dimensions, there are what the authors label "foundation skills," which include verbal reasoning, numerical reasoning, space relations, mechanical reasoning, writing skill, and technical job knowledge.

The second step is to prepare a description of the foreman position openings and a list of the minimum evaluation criteria. The descriptions are circulated among the workers who are invited to apply. A foreman selection committee reviews all applications and eliminates anyone who fails to meet minimum requirements.

The third step is for the applicants to complete a half-day of standard tests related to the foundation skills described above. Following these tests, the applicants are involved in a number of simulated exercises selected to reflect typical activities of a foreman. Finally, the foreman selection committee compares the descriptions of position openings with the results of the standard tests and simulations, along with descriptions of present job performance and work habits of each applicant. The final choice is governed by the best fit.

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[3]Considerably more literature exists on the validity of testing for advancement. This literature is not reviewed here because it concerns testing techniques rather than employee traits and skills. Therefore, it does not add much to our knowledge of the first-line supervisor.

Supervisory Training

The most important reason for training first-line supervisors, particularly new first-line supervisors, is that this group of employees presumably lacks basic supervisory skills. Traditionally first-line supervisors are moved into their positions from worker roles in which there is little or no opportunity to gain experience in supervision. There are exceptions, however, to this state of affairs. Strauss (1957) described, for example, the role of the "working supervisor," sometimes labeled a "leadman" or a "strawboss," who is primarily engaged in actual production, but may also have various administrative or quasi-administrative duties. (Because of their sharp differences from the first-line supervisors, these employees have not been discussed herein. For example, "working supervisors" are typically paid by the hour and belong to the union.)

While it is probably important that all supervisors go through training at some time, a number of circumstances are likely to cause supervisory employees to be selected for training. Bedrosian (1971) suggested the following reasons: for personal growth, as remedial action, for reward, for punishment, who can be spared, and whose turn it is. Clearly, not all of these reasons are consistent with the objectives of most training programs. Bedrosian went on to emphasize the importance of basing selection upon a matching up of work unit needs with training program content.

What is the content of a typical supervisory training program? There can be no set answer to this question because, as it turns out, there is no "typical" program. Of course, most programs attempt to provide basic supervisory skills. However, many programs also update various company matters, while others primarily stimulate awareness of trainee behavior and attitudes.

In 1945, Roethlisberger presented the following particularly insightful account of what the "modern" foreman needs to know--whether or not provided through formal training:

> The modern foreman has to know (and understand) not only the company's policies, rules, and regulations and the company's cost system, payment system, manufacturing methods, and inspection regulations, in particular, but also frequently something about the theories of production control, cost control, and time and motion study, in general. He also has to know the labor laws of the United States, the labor laws of the state in which the company operates, and the specific labor contract which exists between his company and the local union. He has to know how to induct, instruct, and train new workers, how to handle and, where possible, prevent grievances; how to improve conditions of safety; how to correct workers and maintain discipline; how never to lose his temper and always to be "fair"; how to get and obtain cooperation from the wide assortment of people with whom he has to deal; and, especially, how to get along with the shop steward. And in some companies he is supposed to know how to do the jobs he supervises better than the employees themselves. Indeed, as some foreman training programs seem to conceive the foreman's job, he has to be a manager, a cost accountant, an engineer, a lawyer, a teacher, a leader, an inspector, a disciplinarian, a counselor, a friend, and above all, an "example." (p. 284)

Table 4 summarizes the recommendations various authors made for training first-line supervisors. Some of these authors were writing with a particular eye toward training, while others were concerned, not with supervisory training per se but, rather, with the informational needs of supervisors that were not fulfilled by day-to-day organizational practices.

Table 4

Recommended Program Content for First-line Supervisory Training

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1. Communications skills
   a. Oral presentation skills
   b. Dissemination of information
   c. Giving feedback
   d. Upward communications (reporting back to superior)
   e. Horizontal and diagonal communications (peer to peer, superior to nonsubordinate, etc.)

2. Basic supervisory and leadership skills
   a. Giving orders
   b. Handling complaints and grievances
   c. Administering discipline
   d. Democratic management styles, "human relations"

3. Subordinate training and development by encouraging and stimulating ideas

4. Techniques to motivate subordinates

5. Conflict resolution skills

6. Planning and organizing
   a. Scheduling
   b. Goal setting

7. Performance appraisals

8. Briefings/updates about company objectives

9. Briefings/updates about new technological developments

10. Effective use of staff

11. Effective use of time

Note. Most of these recommended content areas derive from surveys of first-line supervisors and/or their organizational superiors. Representative authors include: Roethlisberger (1951); Jasinski (1956); Goodacre (1962); Calhoon and Jerdee (1975); Culbertson and Thompson (1980); Alpander (1980); Sasser and Leonard (1980); Crumb (1981); Ilgen, Mitchell, and Frederickson (1981); Karp (1981).

Irrespective of content, how should an effective first-line supervisory training program be delivered? The most extensive literature pertinent to first-line supervision deals with training techniques and educational delivery system alternatives. The

consensus of this literature is that most training programs are rather "traditional" and do not produce satisfactory results (cf., Roethlisberger, 1951); that is, most programs:

> Emphasize either cognitive materials (i.e., how to organize and plan a budget) or the "theory" of dealing with people, expressed in terms of whatever happens to be currently in vogue. (Moses & Ritchie, 1976, p. 337)

Two relatively nontraditional approaches to first-line supervisory training have been quite favorably assessed by the empirical literature. These approaches are founded upon the use of (1) behavioral modeling and (2) assessment centers. Moses and Ritchie (1970) described the application of behavioral modeling to a supervisory training program conducted by the American Telephone and Telegraph Company, Inc. (AT&T) to help first-line supervisors interact more effectively with their subordinates. The program also addressed issues pertinent to the supervision of women and minorities. Supervisors were given opportunities in the program to practice demonstrated behaviors with immediate performance feedback. Two months after training was concluded, trained as well as untrained supervisors were given simulated problem-solving discussions--acting in role plays with subordinates. Results were highly significantly in favor of the trained supervisors. These results are similar to those Latham and Saari (1979) obtained in their assessment of a program aimed at improving the interpersonal skills of first-line supervisors in dealing with employees. That program was also based on behavioral modeling--operationalized by a presentation of films showing the proper method, followed by role playing, followed by handouts of the key learning points of each session. The Latham-Saari study showed highly favorable trainee reactions to the program that were maintained over time.

Although assessment centers are widely used in many organizations, they tend to be used more for higher level management partly because of their relatively large costs of operation. However, a number of organizations have reported their successful use for first-line supervisory training. For example, Bickerstaffe (1981) and Shepherd (1980) describe such a program at the Ford Motor Co. Ltd. In this program, employees who are not supervisors are selected and trained to fill supervisory positions. It begins with an assessment-center-based evaluation of foreman candidates according to specific criteria judged relevant to effective supervision. Selected workers participate in 8 weeks of classroom training, which consists of lectures as well as exercises designed to develop interpersonal skills. As described, the Ford program has many of the factors revealed by research to be necessary for effective training: thoughtful selection, matching of trainee needs with program content, and behavioral modeling with feedback. It is reported to be supported by superiors, enthusiastically received by trainees, and effective.

Role and Status Conflicts

The descriptions by innumerable authors of the miserable way that most organizations create and operate the position of first-line supervisor are very informative. The first of the two quotations below was written in 1945; the second, more than a quarter of a century later in 1971. Descriptions from the 1980s, however, are no different.

> No where in the industrial structure more than at the foreman level is there so great a discrepancy between what a position ought to be and what a position is . . . . Separated from management and separated from his men, dependent and insecure in his relation to his superiors and uncertain in his relations to his men, asked to give cooperation but in turn receiving none, expected to be friendly but

provided with tools which only allow him to be "fair"--in this situation of social deprivation, our modern foreman is asked to deliver the goods. (Roethlisberger, 1945, pp. 284 and 293)

> To become a foreman the skilled workman gives up a great deal and gains comparatively little. He gives up his seniority--that is, his investment of time on the job. He gives up his circle of friends, his long-established union protection . . . . He loses the active utilization and practice of his trade. He works a good deal harder . . . but he seldom receives overtime compensation . . . . (Occasionally, his subordinates earn more than he does, through overtime.) It is little wonder that frequently the foreman's job is turned down by those selected for it. (Dale, 1971, p. 62)

Some of the most important role and status conflicts that affect most first-line supervisors are discussed below.

Absence of "Managerial" Treatment

In an early study that has been informally replicated many times, Wray (1949) found that the first-line supervisors at two plants did not enter into meaningful decision making, but merely implemented decisions made by others. Most first-line supervisors are screened from managerial communications networks as thoroughly as they are screened from meaningful decision making. For example, often they are not informed about the disposition of grievances beyond the first stage. Sometimes the union stewards know the results of organizational decisions before the supervisor does. Patten (1968) argued that:

> If there is any single thing that dramatically drives home to the foreman that he is not a member of management, it is probably the ill-considered managerial practice of not keeping him fully informed as to the disposition of grievances which he denied at the first stage. (p. 99)

Another important difference between the treatment of first-line supervisors and other levels of management is that some supervisors are not even awarded "permanent" salaried employee status. Patten (1968) points out that, in many firms, there is considerable movement of foreman between the salaried and hourly personnel rolls. Patten adds that, under such circumstances, the foreman "is treated like a hired hand, dispensed with when not needed. It becomes exceedingly difficult for such a person to identify permanently with management" (p. 166). In the same vein, Sasser and Leonard (1980) state that first-line supervisors can be transferred back to hourly status against their will as well as fired on a moment's notice, and the Taft-Hartley Act effectively precludes them from organizing.

Still another difference in treatment becomes obvious when "perks" or status symbols are considered. As opposed to higher management, first-line supervisors often do not have access to reserved parking or the managerial cafeterias and they may also be denied access to secretarial and clerical assistance. Even their organizational title, the ultimate status symbol, is seldom selected with an eye toward maximizing subordinate respect. As a partial remedy of this state of affairs, several authors have recommended changes in position titles. Thus, Patten (1968) prefers calling foremen "production supervisors," while Dale (1970) prefers the title "shop manager." Smiley and Westbrook (1975), who opt for "unit supervisors," claim that the essence of the first-line supervisory problem is

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organizational and cannot be solved merely by improving selection, training, or communications. Their solution is to remove one or two layers of management above the first-line supervisor, leaving each unit supervisor responsible for a discrete production unit, complete and integrated--accountable for manpower, quality, quantity, costs, and other factors of production. In their ideal system, the unit supervisor would be under general rather than close supervision.

In addition to organizational and job title changes, a number of recommendations in the literature are consistent with what has been said herein. Tombari (1980), for example, believes the status of first-line supervisors can be improved by authorizing them to administer the organization's labor-management relations. Patten (1968) recommends that foremen be given permanent salaried employee status, as well as choice parking and eating areas. Finally, Roethlisberger (1945) has pointed out that:

> The individual foreman's relative status is determined by such factors
> as age, sex, service, earnings, and social symbols of one sort or
> another. But the chief determining factor is his direct relation to the
> boss; i.e., how close he is to the boss. (p. 289)

Subsequent to Roethlisberger's remarks, considerable research has concluded that, at the first-line or any other supervisory level, "leader upward influence" is indeed a potent determinant of prestige.

Constraints on Supervisory Discretion and Authority

As was mentioned earlier, the first-line supervisor's job has evolved from a position of considerable authority and independence to one of major constraints. These constraints derive from many sources, but are primarily due to three factors: unionism, governmental intervention, and the tremendous growth in the size and importance of organizational staff.

Perhaps the most important of the effects of unionism upon the first-line supervisor's freedom of operations (described earlier) is the tenacity with which many unions cling to seniority as a task- and resource-allocation device. According to Patten:

> The seniority principle . . . curtails the foreman's authority to make
> job assignments, to transfer, to upgrade, to reward or punish by
> granting or withholding a merit increase, and in several other areas.
> (1968, p. 89)

A consequence of unionism not described earlier is noted by Sasser and Leonard (1980):

> The union has also served to lower the prestige of the first-line
> supervisor by winning large wage increases, improved working condi-
> tions, and job security for its members. First-line supervisors have
> seen workers' wages rise more rapidly than their own. (p. 116)

The influence of government upon the first-line supervisor's discretion and authority takes many forms, such as labor laws, OSHA initiatives, and formal reporting and informational requirements. Possibly, the government's emphasis on affirmative action has had the most impact upon the supervisor's job. Affirmative action changes not only the demographic makeup of subordinates--increasing the heterogeneity of the work

force--but also the first-line supervisor's ability to maintain work group effectiveness, work roles, and bases of authority (Hammer, 1979). It is ironic, according to Hammer, that the effects of affirmative action with respect to the personnel division are always studied, while typically its effects on the shop floor, which can be considerable, receive little attention. Hammer points out that supervisors now have less influence over who is hired and that "shop floor supervisors report a noticeable lack of support from both personnel staffs and their own superiors when complaints are lodged against women and minority workers" (p. 386).

The incredible growth of organizational staff in recent years has sharply eroded the first-line supervisor's authority and, by its very nature, has increased the distance between supervisors and higher management, and added to supervisors' role and status conflicts. Argyris (1953) has presented an interesting illustration of why this is so:

> Let us assume that a finance man discovers an error in a particular foreman's department. How is this error reported? .... The finance man cannot take the "shortest" route between the foreman and himself. For one reason, it may be a violation of policy for staff personnel to go directly to line personnel. Even more important (from a human point of view), the finance man achieves his success when his boss knows he is finding errors. (p. 104)

Thus, by taking the long way around, the finance people feel good and look good to others. The first-line supervisor, however, is placed in a stressful double-bind, because, as difficult as it is to work with staff, organizational realities may make it even more difficult to work without staff. As Patten (1968) pointed out:

> Now that products have become more complex and product lines larger and more varied, the individual foreman no longer has the information needed to schedule production even for his own department or a smaller unit .... Because the variety of materials available today make it a complicated matter to make changes in production methods, the production or manufacturing engineering department sets the rules in this area. Correspondingly, with the foreman's subordinates restricted to making standard parts in standard ways, it has seemed logical to establish a group of inspectors or quality control personnel (reporting elsewhere) to decide whether the foreman's subordinates have done so. Underlying all these matters is the serious business of cost control--which, too, is directed by staff people. (pp. 34-35)

Changes in Subordinates' Education and Values

The constantly increasing education level of the American work force has resulted in higher expectations on the part of workers regarding the quality of their work life. Worker interest in leisure activities has been rising and tolerance for authority has been diminishing (cf., Zierden, 1980). These changes have resulted in further stresses and role strains for the first-line supervisors. The situation becomes most serious when subordinates actually have as much or more formal education as their supervisors. As a partial remedy for this problem, Patten (1968) recommends that organizations institute educational leaves of absence for first-line supervisors to make up educational deficiencies.

Future Trends

Peter Drucker (1983) recently stated:

> No job is going to change more in the next decade than that of the
> first-line supervisor in both factory and office. And few people in
> the work force are less prepared for the changes and less likely to
> welcome them.

Three societal forces that will have the greatest future impact upon the first-line
supervisory position are: (1) continued growth in the size and importance of specialized
staff units with a consequent further erosion of the supervisor's influence, (2) continued
emphasis in public and private organizations upon various decentralization and participa-
tive management techniques such as quality circles and autonomous work groups, and (3)
ever increasing application of computer-driven automation and information management
in the work place. These three forces, although diverse and driven somewhat in-
dependently, will all reduce the first-line supervisors' control and influence. Will the
position continue to be an important part of organizational functioning? The answer is
yes, but the job will be different and supervisors will be less numerous as discussed below.

Growth of Specialized Staff

The first-line supervisory position will evolve continuously as managements change
their policies, unions increase or decrease their influence, governments become more or
less involved in organizational matters, and technological breakthroughs accelerate. To
adjust to these changes, organizations will seek help, which will inevitably take the form
of greater use of staff experts. Management consultants will be brought in to advise on
new management techniques, industrial relations experts will be asked to advise on labor
relations and legal changes, automation experts and management information system
(MIS) specialists will be added to help implement the new technologies, and a variety of
"environmental scanners" will be asked to read the future concerning legislation, market
forces, and changes in societal demographics and values. This will probably mean the
first-line supervisor will spend more and more time with people outside the immediate
work unit and will require training in boundary spanning and in nonhierarchical interac-
tions and modes of influence. It also probably means that the authority and discretion of
the position will be further reduced as the supervisor is required to implement new
programs in highly prescribed formats. The supervisor will simply be a mechanism of
upper management rather than an independent decision maker.

Emphasis on Participation and Decentralization

Spurred by Japan's successes in the international market, American managers have
become increasingly self-conscious about their management styles and have increasingly
shown willingness to experiment with participative (quality circles, autonomous work
groups, suggestion systems) and decentralized (variable work weeks, flextime, matrix
systems) techniques and philosophies. Logically, this means that first-line supervisors will
be increasingly invited to share leadership and decision making with their subordinates.
Since value congruence and at least minimal goal agreement are necessary for such
approaches to work, organizations will become increasingly attentive to the use of
training/socialization programs to homogenize their work force and will also be willing to
adopt relatively creative incentive systems, many operating at the group or work unit
level, in an effort to provide common bases for cooperation. As suggested earlier and
outlined in Table 3, these trends will make it necessary for first-line supervisors to

reconceptualize their roles and reformulate their day-to-day responsibilities. External relations, and boundary spanning activities within the organization, will become especially important.

Computer-driven Automation and Information Management

The trend for computers to change the face of the workplace will accelerate as the advantages of using the new technologies become increasingly apparent. These new technologies will affect everyone's job, but their greatest impact to date has been on workers whose work is labor-intensive, requires relatively little discretion and judgment, and tends to be closely supervised--in short, the kind of work managed by the first-line supervisor.

First, computers or robots will entirely take over certain functions currently performed manually. Therefore, the amount and sophistication of equipment for which the average supervisor is responsible will probably increase. Second, many workers will perform their activities directly through a computer, most often using a cathode ray tube (CRT). These computers will be able to record and store large amounts of detailed information on workers' activities and production output. In both offices and factories, these computerized information systems will make it possible for higher management to obtain information about individual workers, missed target dates, and many other matters without going to the first-line supervisor. Supervisors will still be responsible for monitoring the equipment, monitoring various system functions, and explaining variances between planned and actual production. Many of the activities the first-line supervisor is responsible for will be performed out of his or her sight--in some cases, at the employee's residence.

So far we have attempted to predict the effects of automation and computerization in general. However, Thurley and Wirdenius (1973) described four kinds of automation situations based on two variables: type of decision and type of technology. Taken together, a two-by-two matrix can be identified as follows:

	Programmed decisions necessary	Nonprogrammed decisions
	Situation I	Situation II
Process technology	Stable automated system electric power plants, flour mills, breweries, etc.	Planned development of auto-mated systems--oil refiner-ies, steel, chemical, and paper plants
	Situation III	Situation IV
Unit (tailor-made) technology	Computer-controlled projects (planning and administration)--construction, large capital projects, ships, aircraft, space technology	Computers used to service R&D teams in developing models. Simulation of problems and system key activity

According to Thurley and Wirdenius (1973):

> Popular attention has focused on Situation I, where supervision might
> be seen as likely to be reduced to monitoring results and carrying out

routine procedures. In all the other situations, however, supervisors might play a much more active and responsible role. In Situation II, process supervisors can contribute to the development program by assisting with plant experiments and observing effects . . . . In Situation III, supervisors may well have to carry out precise recording of data in order to feed it back to the computer. Crises and unexpected events cannot be avoided, and new skills are required for supervisors to be able to draw the additional data available from the computer . . . . It is increasingly recognized that the computerization of planning in construction projects, for example, may increase the responsibilities of supervisors and not diminish them.

Situation IV is obviously an unprogrammed area and hence it is necessary only to assert that supervisory experience . . . may be an essential component of such teams, in order to avoid the otherwise inevitable gaps between theoretical reasoning and actual performance. (p. 207)

Mann and Hoffman's (1960) earlier work agreed with Thurley and Wirdenius' description of Situation I. They compared the differences in the operation of a newly automated electric power plant with that of an older, mechanized plant. The authors found that automation decreased the number of foremen, but increased the influence of those who remained. Human relations competence, as opposed to technical competence, was found to be key in both the older and the newer plants.

Situation I is also consistent with earlier work by Atchison (1970), who reported that specialization and narrowing of job scope impairs first-line supervisory influence. Computers will be able to take over these specialized and narrow supervisory functions in the future. Situation II is consistent with Jasinski's (1956) prediction that changes in technology, particularly assembly line or process technology, would require horizontal (peer to peer) and diagonal (supervisor to nonsubordinate) interactions.

In Situations II, III, and IV, supervisory interactions with external staff will be necessary to aid in system analysis, obtain maintenance and repair services, and secure resources for the work to proceed. As mentioned previously, boundary spanning must increase as a result of automation.

Combined Impact

Table 5 predicts the direction of the impact of the three societal forces upon the activities of first-line supervision. The amount of time first-line supervisors will spend performing the 12 typical supervisory activities (outlined in Tables 1 and 3 and carried over to Table 5) will decrease for 7, not change for 3, and increase for 2 activities.

What can be concluded from this analysis? As stated earlier, the first-line supervisor will be interacting with more and more people outside his or her work group. As concerns interactions within the work group, the supervisor will be required to be more of a counselor and group facilitator. Naisbitt (1982) has noted that as technology makes further and further encroachments into people's lives, they tend to compensate by participating in more personal interactive activities--what Naisbitt labels the "high-tech/high-touch" phenomena. It follows that, as technology makes its presence felt in organizations, there will be an increasing need for more nurturant behavior by supervisors.

Table 5

Impact of Predicted Forces on First-line Supervisory Activities

| Activity | Impact on First-line supervisors' time | | | |
	Staff Involvement	Worker Participation	MIS, Automation	Net Impact
1. Planning and scheduling work, documentation of records and reports	-	0	-	-
2. Carrying out "human relations," counseling	-	+	+	+
3. Coordination and control, organizing subordinates' work	-	-	-	-
4. Maintaining external relations	+	+	+	+
5. Managing performance-reward contingencies	0	+	-	0
6. Maintaining quality and efficiency	0	-	-	-
7. Maintaining safety and cleanliness	0	-	+	0
8. Maintaining machinery and equipment	0	-	+	0
9. Selecting employees	-	+	-	-
10. Training employees	-	+	-	-
11. Stimulating suggestions	0	-	-	-
12. Maintaining union-management relations	-	0	-	-

Notes.

+ = Increase in FLS time required.
0 = No change in FLS time required.
- = Reduction in FLS time required.
MIS = Management information system.

All three forces--staff involvement, worker participation, and MIS/automation--feed on and support one another. The increase in strength and number of specialized staffs will stimulate worker participation and application of new technologies. As worker participation increases, so will the need for staff assistance and computer monitoring of work force outputs and processes. Finally, as technological advances become more accessible, there will be greater need for both staff assistance and worker involvement in implementing and operating the new technologies.

First-line supervisors are viewed in most cases (Situations II, III, and IV in Thurley and Wirdenius' conceptualization) as being essential to the successful operation of future systems. In a few cases, technological advances may render the supervisory position redundant; in most instances, the job will remain critical though changed from what it has been. Even so, there is nothing apparent in future situations that will alleviate the inherent problems and tensions that affect first-line supervisors today--caught in the middle, between upper management and the work force. Allowing the future to take its natural course will not resolve this problem. What will resolve this problem is for organizational leaders to begin to address the areas of concern that have been discussed herein systematically.

CONCLUSIONS

Because the literature describing the first-line supervision position specifically is replete with anecdotal reports but sparse of empirical research based upon theory, it is risky to base generalizations and recommendations on the literature. Nevertheless, many questions still remain.

1. Surprisingly little information is available on the selection of potential first-line supervisors or foremen from the worker (nonmanagerial) ranks, which is a problem in practically every working environment.

2. The general management literature pays little attention to the hierarchical level discussed. The question remains whether a research finding can be related to the supervisor at the bottom of the management hierarchy in the same manner as to a supervisor at the middle or upper levels. Is management of workers the same as the management of other managers? While situational factors are important to our theories of management, the fact that hierarchical level is generally ignored results in an imprecise data base upon which to draw conclusions.

3. The literature is far from meeting the standards of today's rigor to qualify as a sound platform upon which to make prescriptive recommendations.

RECOMMENDATIONS

A few recommendations that have general theoretical support can be made with two precautions:

1. When addressing issues of the first-line supervisor, one must be cognizant of the limited influence this position has come to experience. Before implementing traditional managerial programs, the actual control over the workers and the work performed should be analyzed. The findings of this study indicate the first-line supervisor has very limited influence over matters for which he or she is held responsible.

2. One must understand the conflictual nature of the position, which is caught between worker, upper management, and staff demands. These demands focus on the first-line supervisor, who is often unsure of his or her own role--sometimes considered management, sometimes excluded from management.

Naturally derived from these two precautions is the recommendation to define clearly the power available in the first-line supervisor's position, hold the position

responsible for only those activities over which power is held, and resolve role conflicts created by too many or even conflicting demands on the position. This recommendation is a necesary antecedent to the following more specific recommendations that apply in the general case, but may not be appropriate in every specific case:

1. The management team should include the first-line supervisor in all respects. The first-line supervisor should never be a quasi-member of management or be included only in matters that involve the supervisor's workers, but should be a full-fledged manager receiving all the "perks" associated with management.

2. Supervisory behaviors that lead to improved performance of the work group should be identified and supervisors trained in the use of these behaviors.

3. Management styles expected of supervisors should match those of the their superiors. That is, if the supervisors are expected to display supportive, participative behaviors, their boss should use these same styles with the supervisors.

4. Participation in decision making by subordinates should be developed within the supervisor-subordinate relationship.

5. Stronger peer relationships between first-line supervisors to aid in solutions to common problems and facilitate the flow of resources, including information, should be developed.

6. Development of the first-line supervisor superior relationship should be included in training programs to strengthen this relationship and thereby enhance the performance of the first-line supervisor's influence in the work group.

7. The behaviors identified in recommendation 2 should be used to formalize criteria in selecting workers for promotion to first-line supervisor.

8. Training program content should match the needs of the first-line supervisors based on assessment center evaluations and should utilize behavioral modeling techniques.

9. First-line supervisors should be provided with training, educational leaves of absence, and job mobility to equip them to deal with their ever more complex subordinates and cope with major changes brought about by trends toward greater staff specialization, greater use of participative management techniques, and computer-aided automation.

REFERENCES

Alpander, G. Training first-line supervisors to criticize constructively. _Personnel Journal_, 1980, _59_, 216-221.

Argyris, C. Human problems with budgets. _Harvard Business Review_, 1953, 97-110.

Atchison, T. J. The fragmentation of authority. _Personnel_, 1970, _47_, 8-14.

Balma, M. J., Maloney, J. C., & Lawshe, C. H. The role of the foreman in modern industry: II. Foreman identification with management, work group productivity, and employee attitudes toward the foreman. _Personnel Psychology_, 1958, _11_, 367-378.

Bare, A. C. Staffing and training: Neglected supervisory functions related to group performance. _Personnel Psychology_, 1978, _31_, 107-117.

Bass, B. M., & Shackleton, V. J. Industrial democracy and participative management: A case for synthesis. _Academy of Management Review_, 1979, _4_, 393-404.

Bedrosian, H. Selecting supervisors for training—what motivates the boss? _Personnel_, 1971, _48_, 44-47.

Bickerstaffe, G. A new Ford model for training first-line supervisors. _International Management_, 1981, 32-34.

Bowers, C. G., & Seashore, S. E. Predicting organizational effectiveness with a four-factor theory of leadership. _Administrative Science Quarterly_, 1966, _11_, 238-263.

Broedling, L. A., Crawford, K. S., Kissler, G. D., Mohr, D. A., Newman, A. R., White, M.A., William, H., Young, L. R. & Koslowski, T. J. _An examination of productivity impediments in the Navy industrial community_ (NPRDC Spec. Rep. 81-2). San Diego: Navy Personnel Research and Development Center, 1980.

Business Week, 25 April 1983.

Calhoon, R. P., & Jerdee, T. H. First-level supervisory training needs and organizational development. _Public Personnel Management_, 1975, _2_, 196-200.

Child, J. Factors associated with the managerial rating of supervisory performance. _The Journal of Management Studies_, 1980, _17_, 275-302.

Cleven, W. A., & Fiedler, F. E. Interpersonal perceptions of open-hearth foremen and steel production. _Journal of Applied Psychology_, 1956, _40_, 312-314.

Colyer, D. The good foreman—as his men see him. _Personnel_, 1951, 140-147.

Comrey, A. L., Pfiffner, J. M., & High, W. S. _Factors influencing organizational effectiveness: A final report._ Los Angeles: University of Southern California Technical Report, 1954.

Crumb, C. V. Performance-based line supervisor training. _Training and Development Journal_, 1981, _35_, 44-47.

Culbertson, K., & Thompson, M. An analysis of supervisory training needs. Training and Development Journal, 1980, 34, 58-62.

Cummings, P. Occupation: Supervisor. Personnel Journal, 1975, 54, 448-450.

Cummings, T. G. Self-regulating work groups: A socio-technical synthesis. Academy of Management Review, 1978, 3, 625-634.

Cummings, T. G., Malloy, E. S., & Glen, R. A methodological critique of fifty-eight selected work experiments. Human Relations, 1977, 30, 675-708.

Cummins, R. C. Relationship of initiating structure and job performances as moderated by consideration. Journal of Applied Psychology, 1971, 55, 489-490.

Dale, L. A. The foreman as manager. Personnel, 1971, 48, 61-64.

Dowell, B., & Wexley, E. Development of a work behavior taxonomy for first-line supervisors. Journal of Applied Psychology, 1978, 63, 563-572.

Drucker, P. F. Twilight of the first-line supervision? The Wall Street Journal, 7 June 1983.

Evans, C. E. Contrasting views of the foreman's responsibilities. Personnel, 1957, 34, 32-39.

Fiedler, F. A. A theory of leadership effectiveness. New York: McGraw-Hill, 1967.

Fleishman, E. A. The relationship between leadership climate and supervisory behavior (Unpublished PhD Dissertation). Columbus, OH: Ohio State University, 1951.

Fleishman, E. A. The description of supervisory behavior. Personnel Psychology, 1953, 37, 1-6.

Fleishman, E. A., & Harris, E. F. Patterns of leadership behavior related to employee grievances and turnover. Personnel Psychology, 1962, 15, 43-56.

Fleishman, E. A., Harris, E. F., & Burtt, H. E. Leadership and supervision in industry. Columbus, OH: Ohio State University, Bureau of Education Research, Research Monograph, No. 33, 1955.

Fleishman, E. A., & Peters, D. R. Interpersonal values, leadership attitudes and managerial success. Personnel Psychology, 1962, 15, 127-143.

Goodacre, D. M. Do foremen pass along economic information? Personnel, 1962, 73-77.

Guest, R. Of time and the foreman. Personnel, 1956, 32, 478-486.

Hackman, R. Work design. In Hackman and Suttle (Eds.), Improving life at work. Santa Monica, CA: Goodyear Publishing Co., Inc., 1977, 96-162.

Halpin, A. W., & Winer, B. J. A factorial study of the leader behavior descriptions. In Stogdill,R., & Coons, A. E. (Eds.), Leadership behavior: Its description and measurement. Columbus, OH: Ohio State University, Bureau of Business Research, Research Monograph No. 88, 1957.

Hammer, T. H. Affirmative action programs: Have we forgotten the first-line supervisor? Personnel Journal, 1979, 384-389.

Harris, E. F. Measuring industrial leadership and its implications for training supervisors. (Unpublished PhD Dissertation). Ohio State University, 1952.

Hemphill, J. K. Leader behavior associated with the administrative reputations of college departments. In Stogdill, R., & Coons, A. (Eds.), Leader behavior: Its description and measurement. Columbus, OH: Ohio State University, Bureau of Business Research, Research Monograph No. 88, 1957.

Hersey, P., & Blanchard, K. H. Management of Organizational Behavior (3rd ed.). Englewood Cliffs, NJ: Prentice-Hall, 1977.

House, R. J. A path goal theory of leader effectiveness. Administrative Science Quarterly, 1971, 16, 321-339.

House, R. J., Filley, A. C., & Kerr, S. Relation of leader consideration and initiating structure to R and D subordinates' satisfaction. Administrative Science Quarterly, 1971, 16, 19-30.

Ilgen, D. R., Mitchell, T., & Frederickson, J. W. Poor performers: Supervisor's and subordinate's responses. Organizational behavior and human performance, 1981, 27, 386-410.

Jasinski, F. J. Foreman relationships outside the work group. Personnel, 1956, 33, 130-136.

Kahn, R. L., & Katz, D. Leadership in relation to productivity and morale. In Cartwright & Zander (Eds.), Group Dynamics. Evanston, IL: Row Peterson, 1953.

Karp, H. B. Executive development for first-line supervisors. Training/HRD, 1981, 18, 95, 98.

Kay, B. Key factors in effective foreman behavior. Personnel, 1959, 25-31.

Kerr, S., Schriesheim, C. A., Murphy, C., & Stogdill, R. M. Toward a contingency theory of leadership based on the consideration and initiating structure literature. Organizational Behavior and Human Performance, 1974, 12, 62-82.

Koslowski, T. J. Assessment of civilian personnel management and equal employment opportunity issues (NPRDC Spec. Rep. 82-3). San Diego: Navy Personnel Research and Development Center, 1981.

Lahat-Mandelbaum, B., & Kipnis, D. Leader behavior dimensions related to students' evaluation of teaching effectiveness. Journal of Applied Psychology, 1973, 58, 250-253.

Latham, G. P., Fay, C. H., & Saari, L. M. The development of behavioral observation scales for appraising the performance of foremen. Personnel Psychology, 1979, 32, 299-311.

Latham, G. P., & Saari, L. M. Application of social-learning theory to training supervisors through behavior modeling. Journal of Applied Psychology, 1979, 64, 239-246.

Mandell, M. M., & Duckworth, P. The supervisor's job: A survey. Personnel, 1955, 456-462.

Mann, F. C., & Baumgartel, H. The supervisor's concern with cost in an electric power company. Ann Arbor, MI: University of Michigan, Survey Research Center, 1953.

Mann, F. C., & Dent, J. K. The supervisor: Member of two organizational families. Harvard Business Review, 1954, 32, 104-112.

Mann, F. C., & Hoffman, L. R. Automation and the worker. New York: Henry Holt, 1960.

Moses, J. L., & Ritchie, R. J. Supervisory relationships training: A behavioral evaluation of a behavior modeling program. Personnel Psychology, 1976, 29, 343-373.

Naisbitt, J. Megatrends, New York: Warner Books, 1982.

Oaklander, H., & Fleishman, E. A. Patterns of leadership related to organizational stress in hospital settings. Administrative Science Quarterly, 1964, 8, 520-532.

O'Toole, J. Making America work. New York: The Continuum Publishing Company, 1981.

Parker, T. C. Relationships among measures of supervisory behavior, group behavior, and situational characteristics. Personnel Psychology, 1963, 16, 319-334.

Patchen, M. Supervisory methods and group performance norms. Administrative Science Quarterly, 1962, 275-294.

Patten, T. The foreman: Forgotten man of management. New York: American Management Association, 1968.

Pelz, D. Influence: A key to effective leadership in the first-line supervisor. Personnel, 1952, 29, 209-217.

Pfeffer, J., & Salancik, G. R. Determinants of supervisory behavior: A role set analysis. Human Relations, 1975, 28, 139-153.

Prien, E. P. Development of a supervisory position description questionnaire. Journal of Applied Psychology, 1963, 47, 10-14.

Rambo, W. W. The construction and analysis of a leadership behavior check list for industrial managers. Journal of Applied Psychology, 1958, 42, 409-415.

Roethlisberger, F. J. The foreman: Master and victim of double talk. Harvard Business Review, 1945, 23, 283-298.

Roethlisberger, F. J. Training supervisors in human relations. Harvard Business Review, 1951, 29, 47-57.

Sasser, W. E., & Leonard, F. S. Let first-level supervisors do their job. Harvard Business Review, 1980, 58, 113-121.

Shepherd, R. Off the line into an exercise. Personnel Management, 1980, 12, 20-24.

Shrank, R. Productivity at the point of production. University of Southern California, School of Business Administration Seminar, 21 January 1982.

Smiley, L. M., & Westbrook, P. R. The first-line supervisory problem redefined. Personnel Journal, 1975, 54, 620-623, 638.

Spector, A. J., Clark, R. A., & Glickman, A. S. Supervisory characteristics and attitudes of subordinates. Personnel Psychology, 1960, 13, 301-316.

Stogdill, R. M. Manual for the leader behavior description questionnaire: Form XII. Columbus: Ohio State University, Bureau of Business Research, 1963.

Strauss, G. The changing role of the working supervisor. The Journal of Business of the University of Chicago, 1957, 30, 202-211.

Taylor, F. W. The principles of scientific management. New York: Harper and Brothers, 1911.

Thurley, K., & Wirdenius, H. Supervision: A reappraisal. London: Heinemann, 1973.

Tombari, H. A. Determinants of equity of rewards for supervisors. Public Personnel Management, 1980, 9, 25-30.

Turner, A. N. Foreman--key to worker morale. Harvard Business Review, 1954, 76-86.

Turner, A. N. Interaction and sentiment in the foreman-worker relationship. Human Organization, 1955, 10-16.

Turner, T. S., & Utley, J. A. Foreman selection: One company's approach. Personnel, 1979, 56, 47-55.

Vroom, V. H. Decision making and the leadership process. Journal of Contemporary Business, 1974, 47-64.

Vroom, V. H., & Yetton, P. W. Leadership and decision making. Pittsburgh: Pittsburgh Press, 1973.

Walton, R. E., & Schlesinger, L. A. Do supervisors thrive in participative work systems? Organizational Dynamics, 1979, 25-38.

Westerlund, G., & Stromberg, L. Measurement and appraisal of the performance of foremen. British Journal of Industrial Relations, 1965, 3, 345-362.

Wolz, W. T. How to interview supervisory candidates from the ranks. Personnel, 1980, 57, 31-39.

Woodward, J. Management and technology. London: Her Majesty's Stationery Office, 1958.

Wray, D. E. Marginal men of industry: The foremen. American Journal of Sociology, 1949, 298-301.

Yukl, G. A. Leadership in Organizations. Englewood Cliffs: Prentice-Hall, 1981.

Yukl, G. A., & Kanuk, L. Leadership behavior and effectiveness of beauty salon managers. Personnel Psychology, 1979, 32, 663-675.

Zierden, W. E. Needed: Top management attention to the role of the first-line supervisor. S.A.M. Advanced Management Journal, 1980, 45, 18-25.

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