

Productivity (1948)

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Productivity, Supervision and Employee Morale

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Selected Findings from a Study of Clerical Workers
in the Prudential Insurance Company of America

Survey Research Center Study No. 6

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Introduction

This report presents selected findings from a study conducted in the home office of the Prudential Insurance Company as part of a long range program of research on problems of group motivation. The program is supported by a grant from the Office of Naval Research, and this first study was carried out through the cooperation of the Prudential Company.

The larger program, of which this study is the initial project, has the following over-all objectives: (1) to discover the causal conditions making for a high level of group performance, (2) to discover the causal conditions making for a high level of group morale and of satisfaction of individual members and (3) to determine the specific techniques for applying the general principles of group motivation and morale to particular situations. The first stage of the program is directed at finding the conditions related to good group functioning; the second stage will seek to establish the definite causal nature of these conditions by experimental application of the findings. Research studies in this program have thus far been confined to industrial concerns, but later they will be extended to governmental organizations and voluntary groups.

The main purpose of this first study was to find out some of the psychological factors related to group productivity. Accordingly, differences in productivity between employees performing similar tasks were studied in relation to supervisory values, supervisory practices, and employees' attitudes.

Two large departments in the home office were selected for study. The first, the Ordinary Policy Department, contained six parallel divisions, each of which duplicates

every other division in organization, in type of work, in type and number of personnel. Each division is made up of eleven sections, each performing a specialized function. Hence, Section A in Division I is comparable to Sections A in Divisions II, III, IV, V, VI. Similarly, in the second department, the Debit Policy Department, there are four parallel divisions containing four parallel sections on which there are productivity measures.

Productivity is measured by computing the personnel costs for accomplishing a given amount of work. The highest producing division in each of the two departments performed reliably better than the lowest producing one over a six-month period immediately preceding the study. Similarly, the highest producing section of a given type performed in a reliably superior fashion to its lowest performing counterpart. But because of the fact that management studies these figures constantly and strives to reduce these differences, the absolute amount of the differences was not large, even though statistically reliable in all selected instances.

Intensive interviews were conducted with all employees of the selected divisions and sections, a total of 742 interviews of non-supervisory personnel. In addition, the 73 supervisory and managerial personnel in the selected sections and divisions, including section heads (first level), supervising clerks (second level), assistant managers (third level) and managers (fourth level), were interviewed. The interviewing took place between September 8 and November 4, 1947.

This report is intended to be preliminary and non-technical in nature. A more complete technical report will be available on request.

In addition to the study of group productivity at Prudential, three other large scale projects are in process. One is the study of the interrelationships of all levels of supervision and management as they affect morale in a large public utility. In this study intensive interviews were conducted with all supervisors and officers at every level of management as well as with employees of high and low morale groups. The second is a study of union-management relations in an automobile plant on the basis of systematic interviewing of rank-and-file workers, union stewards and officials, and company foremen and officers. The third project is concerned with morale and productivity on a railroad.

Summary

Production differences between sections and divisions in the Debit Policy Department and the Ordinary Policy Department are primarily a function of supervision and management.

First-line supervisors in high production work-groups differ from those in low production groups in that they:

1. Are under less close supervision from their own supervisors
2. Place less direct emphasis upon production as the goal
3. Encourage employee participation in the making of decisions
4. Are more employee centered
5. Spend more of their time in supervision and less in straight production work
6. Have a greater feeling of confidence in their supervisory roles
7. Feel that they know where they stand with the company.

Evidently, lower production supervisors are so immediately concerned with the goal of production that they try to reach it by what seems to be the most direct route. They appear to lack understanding of the best means of achieving high production through the use of their own time in effectively motivating their own employees. High producing supervisors, on the other hand, assume that the best way of attaining high production is to motivate their employees by enlisting their identification with the work to be done and by giving them a feeling of responsibility.

Though morale was relatively high in all units, the groups with higher production showed greater pride in their own work-groups. In addition to pride in the immediate

work-group, there was more identification with division among high producing employees than among the poorer producers. Other dimensions of morale, such as identification with the company, intrinsic job satisfaction and satisfaction with job status were not found significantly related to productivity.

These findings further suggest the following psychological interpretation:

People are more effectively motivated when they are given some degree of freedom in the way in which they do their work than when every action is prescribed in advance. They do better when some degree of decision-making about their jobs is possible than when all decisions are made for them. They respond more adequately when they are treated as personalities than as cogs in a machine. In short, if the ego motivations of self-determination, of self-expression, of a sense of personal worth can be tapped, the individual can be more effectively energized. The use of external sanctions, of pressuring for production may work to some degree, but not to the extent that the more internalized motives do. When the individual comes to identify himself with his job and with the work of his group, human resources are much more fully utilized in the production process.

Limitations of This Report

These results are not presented as generalizations which apply to all types of production-situations. They are the findings of the first of a series of studies and their generalizations will have to wait upon the outcome of these studies. For example, they may be limited by the type of production-situation in the Prudential Company where work-methods are very well standardized. Where work-methods are not so thoroughly institutionalized, the findings reported here might not be duplicated. On the other hand it is possible that even in situations where supervisors have considerable freedom with respect to work-methods, emphasis upon employee motivation can improve productivity.

The Findings . . .

Low-production section heads are more closely supervised than are high-production heads . . .

NUMBER OF FIRST-LINE SUPERVISORS

		<i>Under Close Supervision</i>	<i>Under General Supervision</i>
★	HIGH Sections	2	9
	LOW Sections	5	4
★	HIGH Divisions	4	11
	LOW Divisions	11	5

Satisfaction with the degree of delegation of authority is illustrated in this comment of a section head of a high performing section:

“I have a very unusual manager. Your section is your responsibility. If you get into trouble you can come to him anytime, but *you* do it—but Lord help you if you do it wrong. You don’t often find that in a large company—this freedom. And he stands behind you in whatever you do. But he puts it up to you. He lets me run my section.”

NOTE—The star (★) accompanying a table or chart means that the difference reported is statistically significant. Statistical significance in this report means that differences of this size would occur only 5 or fewer times in 100 by chance. Differences not accompanied by stars are not statistically significant, but do suggest trends. The chi-square test, corrected where necessary for small numbers, was the significance test used.

Some of the differences between supervisors were found only between sections and not between divisions. In these instances apparently the individual section heads of high production sections had learned to behave in these ways as a result of their own motivation primarily and not as a result of the training and supervision they had received from above. In other instances, the differences occurred only between first-line supervisors in high and low producing divisions, but not in sections. Evidently, here supervisory behavior was influenced by higher supervision and management primarily and was not so much a result of the first-line supervisors’ own initiative. Finally, some differences characterized both sections and divisions, and here it is apparent that high producing supervisors were being influenced from above and were also benefiting from their own initiative.

In turn, non-supervisory employees in low-production sections are under more detailed supervision . . .

One indication of the closeness of supervision is the emphasis upon procedural detail in making explanations to employees of new jobs or changes in work methods. According to their employees, heads of low-production sections emphasize such detailed procedural explanations more than high-production section heads.

“Procedural detail” is cited in describing the type of explanation they receive from their supervisors by

- . . . 25% of the employees in low-production sections ★
- . . . 13% of the employees in high-production sections

There is a tendency for heads of high-production sections to allow more freedom to their employees . . .

NUMBER OF FIRST-LINE SUPERVISORS

	<i>Using Close Supervision</i>	<i>Using General Supervision</i>
HIGH Sections	6	5
LOW Sections	11	1
HIGH Divisions	4	5
LOW Divisions	10	2

A section head in a high-production unit talks about her group:

“ . . . They all have definite assignments and they’re a nice cooperative crowd. They just jump in and do things and never bother me. They have a responsibility toward the group. I think that’s a result of my talking to them when they first come in instead of just putting them to work . . . And then I leave them alone, I don’t stand over them and watch them.”

**Pressure for production does not characterize
the high-producing sections . . .**

NUMBER OF FIRST-LINE SUPERVISORS

	<i>Exerting High Pressure</i>	<i>Exerting Low Pressure</i>
{ HIGH Sections	3	8
{ LOW Sections	6	6
{ HIGH Divisions	4	7
{ LOW Divisions	7	4

NUMBER OF FIRST-LINE SUPERVISORS

	<i>Working Under Strong Pressure</i>	<i>Working Under Less Pressure</i>
★ { HIGH Sections	0	9
★ { LOW Sections	5	6
{ HIGH Divisions	0	12
{ LOW Divisions	5	11

Examples of attitudes of pressure-oriented low-producers:

"I know we're doing what is supposed to be done in our section. Hit the work, in and out—and hit it right—not slipshod."

"It is my job to get the employee to stay on the job and produce. I have to work up efficiency charts; my efficiency chart is my argument if I have to make any complaints . . . My biggest headache is to get the employees to do their best."

"I really think that they should have enough people doing the work . . . That's the main thing. We have to have the work out and out correctly. It's important to have people that know the work and know it thoroughly . . . I try to put as much help as possible on the work because the work has to go out. Even if we did get it late we have to see to it that it does get out."

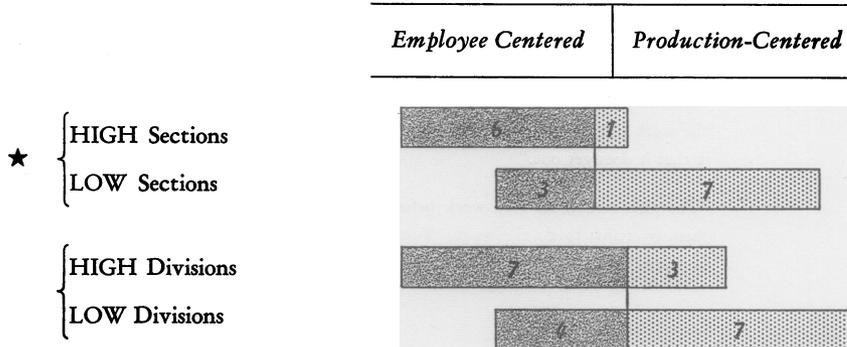
"The girls sometimes stop work before the bell rings; I've been after them and I keep them overtime to do the work. You have to do something drastic and make examples of them."

INTERPRETATION

Though it is possible that close supervision and pressure from above is the result of low productivity, it is more likely that low productivity is both a cause and an effect. As the low producer is made more production conscious, he tends to emphasize ineffective means of achieving production.

“Employee-centered” supervisors are higher producers than “production-centered” supervisors . . .

NUMBER OF FIRST-LINE SUPERVISORS



Compared to the low-production sections, supervisors of the high-production sections are more likely to consider interest in their employees rather than production of primary importance in their jobs.

And these more effective supervisors are also more likely to regard their employees as human beings than as parts of a machine for getting a job done.

Examples of attitudes of “employee-centered” high producers:

“I’ve tried to help them in getting better jobs and to get advanced but . . . there’s so few positions for them to go to. That’s why I teach them how to supervise. A lot of my girls are assistant section heads today.”

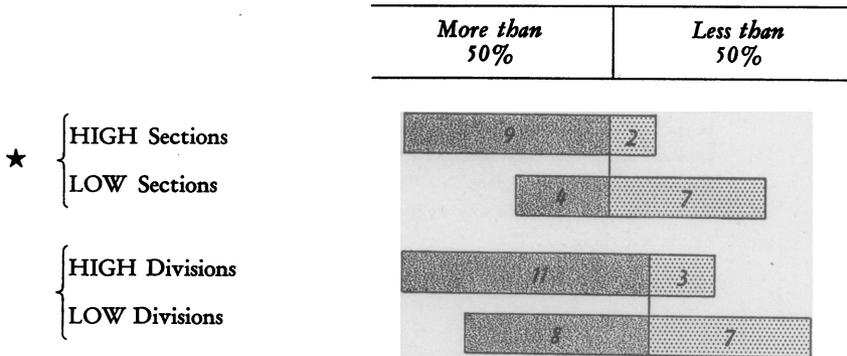
“I study the girls’ work, find out who works together and put them together. The main thing is to keep the girls happy. I talk with them and learn what their peculiarities are so that if a girl gets excited I know whether it is important or not . . . Your girls have to feel you are one of them, not the boss . . . Some girls get sort of cranky and you can’t just say ‘Do it.’ It is much better to ask them to do work in other ways. That’s only human nature.”

“I try to understand each girl. I remember I was just one once, and I liked to be kind of known by the supervisor. Knowing the girls helps with handling the work here—you have to know what happens outside too to help them inside here at Prudential.”

Even though high-production supervisors are more employee-centered, they are less like their employees than are heads of low-producing sections. Section heads in divisions with poorer production records are more like their employees in what they like about working for the company than are the high-production division supervisors. This is consistent with the finding that, comparatively speaking, supervisors in the poorer producing groups seem to play more of the role of employee than of leader.

High-production supervisors spend more time in supervision, less in production work than low-production supervisors . . .

AMOUNT OF TIME DEVOTED TO SUPERVISION BY FIRST-LINE SUPERVISORS



This finding is all the more striking in that the supervisor who spends time in production is saving man hours of cost. His own time is not charged against the cost budget. But this saving is more than offset by his failure to tap the potential human resources in his section. The section head who spends most of his time in straight production work is functioning primarily as an employee and leaves his work group without a leader.

High-production supervisors encourage group participation and discussion . . .

Rating of supervisory interviews on degree of democracy in supervision by interviewers and coders favored the high-performance leaders. Democracy in supervision was defined as the degree to which the supervisor utilized the staff in the decision making process. Significantly more of the heads of high-production sections were rated as democratic than of low-production sections. No such difference was found between section heads in high and low-production divisions.

Excerpt from an interview with supervisor from a high-production section using democratic procedures:

"I also try to discuss everything with the whole Back Row. They work directly with the girls and they can tell you things that you can't observe . . . When changes are to be made I call them together, and I usually decide on exactly how it's to be done and then ask them what they think. They have ideas. They're closer to the girls and know how the work has to be done . . . We discuss it, and I would change my idea if theirs seems to be better. That's why we have discussions, so that we can find out what would be the best thing . . ."

Excerpt from an interview with supervisor from a low-production section using non-democratic procedures:

"Girls want to and do express themselves more today than when we came in. In the past girls were more cringing and pliable—not now. They tell us we get a great many girls who have had no restraints at home—and we have to do the teaching."

Low and high-production supervisors differ in their attempts to influence promotion . . .

Finding:

Section heads from poor sections make recommendations for promotions which have uncertain, unknown, or unsuccessful outcomes.

Section heads from the high sections usually stay out of the promotion process, but the recommendations of those who make recommendations tend to carry.

Interpretation:

Since the real power to make promotions lies with higher-level supervisors, the section heads of high groups have realistically analyzed the actual power situation. Some, realizing their inability to influence promotions, stay out of the process; others enter the process and exert real influence on the outcome.

Supervisors of high-production sections are more satisfied with the set-up of their jobs than supervisors of low-production sections . . .

The principal reason low-production supervisors give for not being satisfied with the set-up of their jobs is that there is *insufficient delegation of authority to them*.

		NUMBER OF FIRST-LINE SUPERVISORS	
		<i>Satisfied with Own Job Set-up</i>	<i>Dissatisfied with Own Job Set-up</i>
★	HIGH Sections	12	0
	LOW Sections	6	5
★	HIGH Divisions	13	1
	LOW Divisions	8	6

A first-line supervisor of a low-producing section says in commenting about the set-up of his job:

"I'd like a clearly defined policy. Each time we get a new supervising approver (the man over him), especially if we get one from another type of work, he wants to do it differently. I'd like to know just what the powers are and have them clearly defined . . . I'd like to be able to excuse people on overtime any time at all I felt it was O.K., no matter who had issued the order for overtime."

Supervisors in high and low divisions differ in confidence and personal security . . .

More of the first-line supervisors in high-producing divisions have confidence that they are on top of their job than in the low-producing divisions. The section heads in the low divisions tend to lack confidence in themselves.

Moreover, this insecurity is reflected in their feeling about where they stand in the company.

Question: "Do you feel you know how you stand with the company?"

NUMBER OF FIRST-LINE SUPERVISORS		
<i>Yes, Know</i>	<i>No, Uncertain</i>	
★ { HIGH Divisions	6	4
★ { LOW Divisions	2	10

But this difference was not found between high and low-producing section heads.

{ HIGH Sections	6	6
{ LOW Sections	4	7

These findings suggest that the security felt by first-line supervisors depends upon the way their superiors deal with them.

A section head (1st line supervisor) from a low-production division says:

"I don't feel as though I know what the company has in mind for me; though they have made an investment in me, and afforded me a chance to absorb knowledge that I didn't have. But as to whether they will give me a chance to use it, I don't know."

Other personality characteristics of good supervisors . . .

Interviewers rated section heads on various personality traits without knowledge of their production records. Supervisors in high-production sections tended to be rated less arbitrary, more identified with employees, and less defensive in their role of supervisor.

INTERVIEWER-RATING OF SUPERVISORS

FIRST LINE SUPERVISORS WHO ARE		<i>Arbitrary</i>	<i>vs.</i>	<i>Reasonable</i>		
	High Producers	6		5		
	Low Producers	12		0	★	
			<i>Company- Identified</i>	<i>vs.</i>	<i>Employee- Identified</i>	
	High Producers	2		9		
	Low Producers	8		4	★	
			<i>Defensive</i>	<i>vs.</i>	<i>Cooperative</i>	
	High Producers	2		9		
	Low Producers	7		5		

Assistant managers of high-producing divisions are more effective in human relations than those of low divisions . . .

Interviews lasting between two and three hours were conducted with all assistant managers of the highest and lowest divisions in the DPD's and OPD's. Top staff members of the Survey Research Center rated these interviews on 14 characteristics without knowledge of the production records of these divisions.

Characteristics which discriminated best among assistant managers of the high and low divisions were:

- (1) *Effectiveness in getting across to the staff the principal things they need to know to do their jobs well*

An assistant manager in a high-production division:

"You have to have the cooperation of each clerk . . . by being sure they understand any new function to be performed. Not only to know what to do but the WHY. Let them know the why of things. Have them understand why things have to be done a certain way."

- (2) *Over-all effectiveness in human relations*

An assistant manager in a high-production division:

"You have to think of the possible reaction. Anything that you may do or say will cause a reaction. You may unknowingly be bawling them out. If they think you're not treating them as humans but as machines, they are not going to work very well for you."

- (3) *Understanding of the motives, aspirations, and problems of the people of his division*

An assistant manager of a high-production division:

"I have done everything I can to cultivate the feeling that the girls can come and talk with me as individuals, openly and freely, about any problem."

- (4) *Instilling confidence and security in his staff*

Two assistant managers of high-production divisions:

"You have to remove the feeling that someone is working *for* someone else. There must be a sense of working *with*."

"If you have, and you have to have, the confidence of your own people, you can rely on their support. You have to be above board with them and be honest with them. To get that confidence you yourself have got to show willingness to assist—to get in and lend a hand if necessary."

(5) *Time and energy given to human problems rather than work problems*

An assistant manager of a high-production division:

"Our present manager has been leaving things up to his staff much more than the former manager ever did. This has allowed him to devote most of his time to personnel matters."

(6) *Refraining from exerting direct pressure on staff to get the work out*

An assistant manager of a high-production division:

"Pushing will upset the girls. If you have to rush and rush all the time to meet closing times, morale goes down."

Certain attitudes of employees are related to productivity . . .

Thus far, the differences reported have come from an analysis of interviews with supervisory personnel. The attitudes of rank and file employees in the high and low producing sections, however, do not show the expected differences on many of the dimensions of morale. Thus, the employees in the high sections were very similar to employees in the low sections in their job satisfaction, in their identification with the company and in their satisfaction with job status. This similarity may have been due, in part, to the fact that they were all under the same wage policy, the same promotional policy, the same employee benefits and the same working conditions.

In spite of this general commonality of attitudes, some significant differences were found on a number of questions. Namely, among high producers there was:

greater pride in work group

more identification with division

greater liking for the manager

more thoughtful criticism of certain company practices.

These differences are presented in the following pages.

Pride in work group is related to productivity . . .

Employees in high-producing work groups have greater pride in their sections and divisions than employees in lower-producing groups . . .

Question: "How well do you think your section compares with other sections in the Prudential in getting the job done?"

Employees saying "very good—one of the best in the company"

. . . in high-producing sections 41% ★
. . . in low-producing sections 19%

An employee in a high-producing section answers this question as follows:

"I think we are 100% tops. We all work together—we are a good bunch and we have good bosses who cooperate all the time. We're tops."

Pride in division:

Question: "How well do you think your division compares with other divisions in the Prudential in getting the job done?"

Employees saying "very good—one of the best in the company"

. . . in high-producing sections in OPD's . . . 43% ★
. . . in low-producing sections in OPD's . . . 30%

But there was no such difference among DPD employees.

Employee identification with division:

. . . 32% in high-producing sections and ★
. . . 17% in low-producing sections

have very high identification with their divisions.

An employee in a high-producing section says:

"In our division we are always on time with our work, we work together."

Managers and assistant managers are more popular with employees in higher-production divisions . . .

Question: "How do you feel about the manager or assistant manager of your division?"

EMPLOYEE-ATTITUDE TOWARD MANAGERS
AND ASSISTANT MANAGERS

	<i>Strong Liking</i>	<i>Mild Liking</i>	<i>Neutral or Dislike</i>	
★ {	HIGH divisions	54%	37%	9%
	LOW divisions	25%	37%	38%

An employee from a high-producing division comments on her manager:

"I think he's very nice. He is nice to talk to. I heard that the girls didn't like it there when they first came because the work is pretty complicating, but he talks to you and tells you not to worry. I think it's nice."

Two employees from a low-producing division comment on their managers:

"He's not so good—He calls girls down in public—lets his personal feelings get the best of him. He holds grudges."

"He is not as friendly or as liberal as the previous one and I don't trust him."

But this finding is not duplicated at the level of immediate supervisor. There is no significant difference in the esteem with which the section head or immediate boss is held among *sections varying in productivity*. Among individual employees, however, liking for immediate supervisor is definitely related to job satisfaction, to pride in work group, and to identification with company.

High producers are more critical of certain personnel policies . . .

Attitudes of Employees Toward Employee Rating System

- . . . of high-producing sections
 - . . . 14% were favorable and 31% unfavorable toward rating system
- . . . of low-producing sections
 - . . . 25% were favorable and 24% unfavorable toward rating system

An employee from a high-producing section who is critical of the rating system:

"I don't know why they rate anybody . . . They tell you you have an excellent rating, but you just don't get anywhere. You might as well get a poor rating. It all depends on who you know."

The assumption is often made that criticism of company policy is a sign of low morale and worker disaffection. This assumption must be qualified, however, to take into account both the nature of the criticism and its source. The rating system which drew fire from employees had already been recognized by the company as a problem meriting thorough examination. It is significant, therefore, that the higher producers were more critical of this system than the low producers.

The source of criticism is also an important factor to consider. When criticism comes from the better motivated, higher producing employees, it cannot be dismissed as the general negativism of disaffected people.

Further evidence on this point comes from the interviews with first-line supervisors concerning the placement policy.

Among Supervisors

- . . . of high-producing sections
 - . . . 7 out of 9 were critical of company placement policy
- . . . of low-producing sections
 - . . . only 3 out of 12 were critical of company placement policy

A supervisor who is critical of company placement policy:

"I have frequently seen men placed in jobs they don't like and can't do. They could probably do well if placed at something else."

Participation in employee suggestion system . . .

When employees are encouraged to make suggestions just to make a showing on the number of suggestions made by the division or department, and without regard to quality, more employees in low-producing divisions than in high-ones make suggestions.

In the OPD's where the volume of suggestions is low, and where management has not been conducting a vigorous campaign for suggestions—

Employees making suggestions:

. . . in high-producing division 31%
. . . in low-producing division 33%

However, in the DPD's where the volume of suggestions is high and where the management has been conducting a vigorous campaign for more suggestions—

Employees making suggestions:

. . . in high-producing division 60% ★
. . . in low-producing division 87%

The total number of suggestions made by employees was much higher in the DPD's than in the OPD's, but the average dollar value of an approved suggestion was much higher in the OPD's (approximately \$33 to \$11 for DPD's).

Evidently, vigorous promotion of suggestions emphasizing sheer number:

- (1) *Does not encourage suggestions as much from work-oriented employees as from employees who are less work-oriented, and*
- (2) *Does not improve the quality of employees' suggestions.*