

REPORT ON BANK WIRING TEST GROUP

24/9/52
March, 1952

DO NOT DISCLOSE IDENTITIES

From the beginning of this study the identities of the persons under study have been kept confidential. We look to you to carry on this trust. Please guard the privacy of the persons involved by substituting fictitious names, or code symbols for real names.

REPORT ON BANK WIRING TEST GROUP
FOR THE PERIOD NOV. 9, 1931 TO MAR. 18, 1932

The purpose of this report is to outline the progress made in the Bank Wiring Test Room with the view of providing some tangible basis for a critical evaluation of this phase of the research program.

This study has now been in progress since November 9, a period somewhat less than five months. We have been occupied during this time,

1. In establishing an essential intimate relationship between the Research group and the Operating group, i.e., between the interviewer and observer, and the workers and the supervisors. We have been able to develop this relationship quite rapidly largely because of an open minded attitude on the part of the supervisors. They seem quite willing to talk their problems over with us. The employees also have been unbelievably frank. The interviewer-employee relationship is developing satisfactorily, and the observer is being included in conversations which are materially altered with the approach of the supervisors. The value of these relationships cannot be underestimated in work of this kind because the success of the study depends almost entirely upon it. Protective attitudes which surround many shop departments make the establishment of this relationship difficult.

2. Developing methods for gathering and recording data. The interviews and the observations are now being recorded so that they are accessible to everyone who is intimately connected with the work and they are arranged so that they are convenient for proposed analyses. The production and quality record is also arranged to present reliable basic data for any proposed statistical analyses.

3. We have assembled a mass of material from which we ultimately propose to submit a detailed description of the work situation in which all of the forces now active in the Operating Department will be analyzed and evaluated in terms of human effectiveness.

At present we are experimenting with methods which apparently will permit a complete description of this complex situation. This work has not progressed sufficiently to make a finished report possible, but we can offer a partial report which will show the trend of our thinking and some of the values in this particular project.

The following outline should be considered incomplete as we will not attempt to relate all of the forces which have been identified, but nevertheless we have ample evidences in support of each observation and so we believe that the term incomplete should not endanger the reliability of the data.

1. Supervisory-Employee Relationship is Ineffective.

- 1.1 The employees do not recognize the group or section chief as possessing authority.
 - 1.11 The group openly disobeys most of the orders issued by these two supervisors.
 - 1.12 The group only obeys orders when someone is standing over them--even though the orders be issued by the Foreman.
 - 1.13 The group refuses to use materials which they, as individuals, believe to be imperfect. These materials usually come up to company standards and their use is ordered by the supervisors.
- 1.2 The Group Chief, in order to defend his reputation, has had to align himself with the group against the rest of the supervisory hierarchy.
 - 1.21 The Group Chief warns them against practices which, if detected by the Foreman, would react to their and to his discredit.

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- 1.22 The Group Chief defends them against accusations made by someone higher in authority, even when he knows they are true.
- 1.23 He informs them of impending events so that they can defend themselves. Typical instances -- telling them that a "safety" inspection is scheduled and for them to be sure to wear their goggles; warning them that the Foreman is approaching the test room.
- 1.3 The Foreman and his assistant have inaccurate knowledge of how the group in the test room functions or of how it might function. Such information is kept from them.
- 1.4 The Foreman and his assistant feel that the information passed along to them by their subordinates is not always reliable.
 - 1.41 The Foreman has gone to the Foreman in the room adjoining the test room for any information he might have about the group.
 - 1.42 The Assistant Foreman has a brother-in-law who works near the room to whom he goes for information.
 - 1.43 Both of these supervisors have asked the observer for information.
- 1.5 The supervisors have a definite idea as to what the maximum output should be. It is their belief that the group has now reached this level. The employees have concealed their real abilities from them. The Group Chief feels that the group is producing below capacity but he does not tell this to anyone above him.

3. The Relationship Between the Employees and Their Work is Ineffective.

- 2.1 Every employee in the group has a definite idea, corresponding to that held by their supervisors, of what constitutes a day's work.
- 2.2 We have reason to believe that this level of production is, on an average, at least 30% below what it might be.
 - 2.21 Several individuals have stated that they could greatly increase their output.

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- 2.22 Our production records show that they work on some days at a rate which, if kept up during a reasonable amount of the working day, would raise output easily to a figure well within this estimate.
- 2.23 The operators do not report their actual output for the day, but instead report an average figure corresponding to that which their supervisors expect.
- 2.24 They exaggerate the importance of anything which their supervisors will accept as a justification of lowered output.
- 2.25 They stop work early in the afternoon.
- 2.3 All the workmen seem to obtain personal satisfactions when working near their maximum speed.
 - 2.31 The group as a whole is less irritable and less susceptible to annoyances when working fast.
 - 2.32 Certain individuals like to demonstrate their skill and ability to others.
 - 2.33 Certain individuals have said they like to speed and all of them say they like to work unhampered.
 - 2.34 They say time goes much faster when they are working.
- 2.4 The fact that they do obtain satisfactions from doing their best indicates that their lowered efficiency is not due to a desire to loaf but that, on the contrary, it is a reaction to the general work situation. Some of them have a strong desire to do more work but their desires are frustrated and dissatisfactions result.
- 2.5 Among the factors entering into the work situation the following seem to be ineffective:
 - 2.51 The group piece work system.
 - 2.51 1 The employees do not understand its operation.
 - 2.51 11 They do not know whether their pay checks are figured correctly or not. Even the Group Chief cannot figure his pay correctly let alone theirs.

- 2.51 12 They do not know how the "percentage" feature of the system works.
- 2.51 13 They think that their earnings depend almost entirely upon their individual hourly rates rather than upon their collective effort.
- 2.51 2 There is no relationship between individual earnings and individual output.
- 2.51 21 The output of the fastest man in the group is 100% above that of the slowest man yet their earnings are nearly the same.
- 2.51 22 The earnings of the slowest operator are higher than those of others who produce a third again as much.
- 2.52 The manner in which the group payment system is administered is ineffective.
- 2.52 1 Time lost on the job due to the ineffective operation of company routines is charged against the group earnings. Even though the department maintains there is an allowance in the rate for such occurrences this tends to foster an unfavorable attitude. There seem to be demands made upon the Foreman to exclude daywork allowances from his budget. In this situation the Foreman takes pride in having a "no daywork record".
- 2.52 2 The bogey set on the job has no particular significance to the operators or to their supervisors.
- 2.52 21 It is not used by the supervisors in any way.
- 2.52 22 Most of the wiremen interviewed, when asked what the bogey was, gave a figure which corresponds to that which they think of as a day's work. This figure is much lower than the bogey.

- 2.53 The records which the department keeps of individual performance are not an accurate index of the operator's output because:
- 2.53 1 The output figure used is that reported by the operators. Our records show wide discrepancies between actual output and that reported by the operators.
 - 2.53 2 An allowance is made for daywork, i.e., non-productive time. The supervisor has no way of checking this daywork allowance and must take the operator's word for it. The men who understand the method of figuring "efficiency" make claims for daywork which are not justified. Others more conscientious workers do not report non-productive time and therefore do not receive credit for it.
 - 2.53 3 For these reasons the efficiency chart presents a false picture of individual performance, yet it is used by the supervisors as a basis for granting increases in hourly rates or for making any judgment that might be required of him.
- 2.54 The hourly rates of the operators are not based upon a consistent and accurate evaluation of the employees.
- 2.54 1 Rate increases are in part based upon the efficiency record which is inaccurate.
 - 2.54 2 The employee's service with the company sometimes is or is not a factor.
 - 2.54 3 Employees transferred in from other departments who are not experienced on this kind of work often have a day rate higher than that of any experienced operator in the department.
 - 2.54 4 The rates of some employees who are transferred in are adjusted downward while others are not.

2.55 The policy of using increases in hourly rates as an incentive is no longer operative because:

2.55 1 Many operators have reached the maximum rate which the labor-grade on this type of work allows and their production has tended to remain fixed partly because of this.

2.55 2 Rate revisions have been discontinued.

2.55 3 Many employees were promised a rate increase when their production had reached a certain level but these increases have not always been forthcoming. Partly because of this some employees have dropped back to a level corresponding to the rate they are getting. Others have fixed their output at the level they had reached when revisions were stopped.

2.56 Production is at a level sufficiently low that it need not be affected by fatigue, worry, poor health, shortage of parts, or other waiting time. We have observed individuals who were not feeling well produce the required amount of work. Occasionally this requires that they work a little longer than usual, but all it amounts to is a decrease in their spare time.

2.57 Individual demands for recognition and superiority are not expressed in the work itself but in the personal relationships with others. This has resulted in many antagonisms and a general atmosphere of irritability.

2.57 1 The only expressions of superiority in the work we have observed occur when employees race with each other or when some of them attempt to finish the day's work ahead of others.

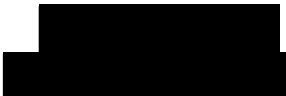
2.57 2 Demands for superiority are expressed in such ways as:

2.57 21 Attempting to control the opening and closing of windows.

- 2.57 22 Developing a special aptitude or knowledge of some subject which will make them outstanding in that particular way. For example, one man poses as a good boxer, another as a wrestler, another as an authority on race horses, and so on. There is endless controversy over such matters which, while it affords amusement, often results in antagonisms. At times these are carried over to the work itself and serve to lessen efficiency.
- 2.58 The work itself is the least successful competitor for their interest. Any disturbance, however small, attracts someone's attention. Most disturbances are deliberately made by the men themselves.
- 2.59 There are as yet no evidences of what might properly be called a group solidarity. It is evident that the group is gradually drawing away from the department and that there is a growing feeling of allegiance to the test room among one or two of the operators but there is as yet no group spirit or loyalty. The individuals react with a united front only when all of them are affected. They do not rally to the defense of any one individual.

These findings, as they are stated, stand in grave danger of being misinterpreted by the reader. Isolated as they are from the total test room situation they seem to point an incriminating finger at what might be interpreted as failings and weaknesses of certain personalities. To interpret it thusly is to miss the point of the study because we believe that identical or similar conditions exist rather widely in the plant and quite independently of particular individuals. Evidence of this, we believe, might be found in the volumes of interviews on file in our department.

We need not discuss these observations further. To us they are symptomatic of a disintegrated industrial situation. It is one in which there are many conflicting forces and attitudes working at cross purposes with each other. What seems to be needed more than anything else at this stage of the research is their realignment and adjustment in an effort to secure a more effective type of collaboration than now exists. This, of course, means experimentation. We are well aware that the integration of such a complex situation cannot be achieved in a single or even a group, of simultaneous changes. It will result from the gradual redirection and control of conflicting forces and attitudes as their importance emerges. At present we believe that an effective relationship between the worker and his work must be established as the basis upon which the group as a whole is integrated. The work then becomes the focal point around which a community of interest is created and by which the group is integrated.



March 21, 1932.

SUPPLEMENT TO REPORT ON BANK WIRING
TEST GROUP FOR THE PERIOD
NOV. 9, 1931 TO MARCH 18, 1932.

In a report on the Bank Wiring Test Group dated March 21, we stated, in summary form, some of our observations relating to two aspects of the test room situation. These were the supervisory employee relationship and the relationship between the employee and his work. In conclusion we pointed out that this whole situation might be described as one in which the group is not collaborating effectively, partly because of hinderances in the work situation itself and partly because of impeding attitudes among the workmen.

We purposely refrained from interpreting the data further because we felt that a simple statement of findings was sufficient to serve the purpose for which the report was written, however, we feel now that it might have been somewhat misinterpreted due to the fact that it was not so related or interpreted. It is the purpose of this report, therefore, to add our comments to these findings in order that the reader might become better acquainted with our point of view.

The first reaction to a report of this kind is that the situation is bad and something needs to be done about it. The impulse is to look for individuals upon whom to fix the responsibility or to look for something to take hold of and manipulate. We feel, however, that this is by no means the correct procedure. Truly the facts presented are somewhat condemnatory, but they are not sufficient to serve as a basis for action. They are really symptoms of

much more fundamental problems, the real nature of which we are only beginning to understand. Industry, quite generally we believe, has traditionally dealt with these symptoms not, of course, without results. To illustrate we need only refer to the department in which this investigation was made. During the past few years production has been raised from an average of about four thousand connections per day to six thousand. Earnings likewise have been increased. From the company's standpoint it is one of the best departments in the branch. The supervisors too, while they are aware that certain injustices exist, feel that this group of wiremen in particular is outstanding. The men are all young, most of them have some high school training, and they have all developed a skill on this type of work. This situation, then, might be looked upon as the end product of the existing managerial techniques operative in it, yet a close observation at the individual level discloses the fact that the fundamental problems connected with getting people to work together remain untouched and as obscure as ever. This does not mean that existing methods are wrong or anything of the kind, but it raises again the question as to just how far management can go in the effective use of labor on the basis of present knowledge.

The question may well be asked as to what precisely this investigation offers in the way of leads toward a better understanding of these problems. In answer to this question we have listed below several things which seem significant to us.

In the first place it will be noted that there are two groups which seem to stand in opposition to each other. One of

these consists of the operators and the Group Chief, the other the Foreman and his assistant. The Section Chief stands in between. The major reason for this division seems to be that managerial methods are not in harmony with the demands which workmen in common make of their working environment. In such circumstances the first line supervisor finds himself in a conflict situation. He can do either of two things; uphold the system of ideas common to management and attempt by driving or other methods to enforce them, or take the side of the workmen and conceal the true situation from his superiors. In the test room the Group Chief has seen fit to side with the workmen, and perhaps rightly. It is quite likely that by opposing them he would only aggravate the situation. In other words, it seems that there are factors inherent in the work situation itself which present almost insuperable obstacles to the attainment of anything like a satisfactory supervisory-employee relationship.

If this is true, it follows that the major problem connected with making this relationship more effective is not necessarily that of enlightening the supervisors. Even though the supervisor adopts an experimental attitude toward his problems he is, in carrying them out, confronted with serious difficulties which limit or impede him.

Secondly, it needs to be said that the term 'restriction of output' when applied to a situation like this really misrepresents the facts. To say that a worker restricts his output is tantamount to saying that he is doing something he shouldn't - something that is morally wrong. There is no hint in the interviews that we have

taken with this group or in our observations that any of these people consciously feel that they are doing something they should not. It is true that production is much lower than it might be, but after all it is as high as the supervisors expect it to be. What really seems to happen is that after production reaches a level which is deemed satisfactory by, let us call it management, it tends to remain fixed. The reason it remains fixed seems to be that the worker regards any increase in his efficiency beyond that point, any acquisition of additional skill, as something peculiarly his own. He does not want to pass along the benefits of his ability to the company, because he is very apprehensive as to what will happen in case he does. He is afraid that he will later be asked to turn out more work for the same amount of money, that he will be asked to turn out the same amount of work in less time for less money, that the rate will be cut, that increases in efficiency will make it necessary to lay somebody off, and so on. Whether these things actually happen or not is beside the point. The fact is that the employees do have these beliefs and they are just as effective as though the events which they are apprehensive of were taking place every day. But to leave that aside, instead of saying that the worker restricts his output we believe it is much more accurate to say that he really effects a compromise which satisfies his supervisors and at the same time affords protection to himself.

Thirdly, we believe that the lack of interest in work shown by some of the people in the test room relates itself directly to the fact that there is no incentive to develop their skill and efficiency beyond the point it has reached. It is also quite possible

that the widespread preoccupation with placement and payment which comes out clearly in the thousands of interviews we have taken, comes from the fact that the worker does not feel free to utilize his skill and abilities to his own satisfaction. Most demands for advancement appear to be nothing more than demands for more money, and not necessarily for recognition or for a different type of work. It is quite possible, then, that the preoccupation with advancement and the desire for transfer comes about somewhat as follows. The worker on his particular job realizes that he can do much better than he is doing at any given time. He feels, perhaps, because of this discrepancy between what he does do and what he feels capable of doing, that by getting out of that situation and into another one he will be better satisfied. Of course the thing doesn't work because the new situation is similar to the old one and, in addition, he carries with him all of the attitudes and preoccupations which he has already built up. It is just possible, though, that if the worker can be got to collaborate effectively problems connected with advancement, placement, interest in work, and so on, might assume minor proportions.

Finally, this study suggests that the place to start in elaborating those phases of an industrial program which pertain to the worker and his work is at the worker's own level with a careful consideration and understanding of his attitudes, judgments, and demands. It does seem that employees make certain common demands of their work situation. Such things as the demand for remuneration in accordance with one's abilities, the demand for fairness or impartiality,

the demand that one's personality be respected by one's superiors and fellow workmen are known to all of us. They are not only common to employees of the Western Electric Company, but to practically everyone. In other words there seem to be certain cultural or socially conditioned demands which might be taken as basic consideration upon which to erect the necessary managerial superstructures. Whether or not the basic nature of these demands is reflected in those listed above is, we believe, a matter of uncertainty. Further study of the material collected in our division with this idea in mind, coupled with carefully planned experimentation, should yield a reliable answer.

April 7, 1932.