

ABSTRACT OF THESIS

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FUNDAMENTAL EMPLOYMENT CHARACTERISTICS  
OF THE METAL TRADES INDUSTRIES  
IN THE SAN FRANCISCO BAY DISTRICT OF CALIFORNIA

Submitted by  
Charles W. Cox

In partial fulfillment of the requirements  
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Colorado State College  
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IN THE SAN FRANCISCO BAY DISTRICT OF CALIFORNIA

A B S T R A C T

This study was made in the San Francisco Bay District including the cities of San Francisco, Oakland, Berkeley, and Alameda and other small cities. It represents a large manufacturing center in various types of industries in which the greater proportion of the work is in the metal trades line.

The writer, who has been working with the leaders in industry in that particular district for many years, has become conversant with the larger employee problems while carrying on vocational training and placement activities. The employers have been very cooperative in working out employee problems with the school system. They are especially interested in what may be called employment characteristics or employment habits.

In the many conferences which have been held on the subject of employee problems, recognition has been made of three types of employees, namely, advanced, non-advanced, and separated. The advanced employee is that person who is well-equipped in every respect to advance

on the job and does so. The non-advanced type of employee is the one who for some reason or another continues on the specialist job or some other job beyond which he never rises. The third and last--separated type--is the employee who for some reason becomes such a severe problem that the employer has to discharge him. The question is asked over and over again, "Why are these three people so different? Why does the first one get ahead, why does the second one stand still and why does the third one get discharged? There would be many advantages to the solving of these three problems. The employer would be better off economically by being able to select men who were void of negative habits; the schools would be far better off if they knew the answers to these questions, being able to set up a vocational training program that would eliminate to some extent at least those two dangers.

With these facts in mind this study was begun with the attempt to solve the following problem, namely, to determine fundamental employment characteristics and to recommend ways in which the local vocational training program may be improved in its efficiency. The solution of the above problem depends upon the answers to the following questions:

1. To what extent does industry give time or accomplishment credit to graduates of vocational schools when they enter industry?

2. Do employers make a preferable distinction between vocational graduates and regular high school graduates?
3. What constitutes recognized employment characteristics and other assets which might be used as teaching responsibilities and employment aids?
4. In what way would these employment characteristics be of value to the employer when analyzing a prospective employee or checking the progress of an employee?
5. What measures or methods may be employed to improve the efficiency of the vocational program?

With this problem and its subordinate questions in mind, plans were started toward the solving of the problem. The first thing that was done was to organize a small committee of employers who had distinguished themselves as being interested in employee progress. The intention was to hold one or two conferences and by the conference procedure determine what in the minds of this small group were employment habits, both good and bad, and to determine what procedures might be followed in making this study. The meetings proved so interesting that they carried on over 27 meetings of two hours each. Much material was gathered at these meetings, including such things as demonstrating the actual procedure of hiring an employee and rating him while he was in the company employ. A summary was made of the material gathered, and this was used as a reference and guide in the following procedure.

Next, personal interviews were held with some of the leading employers to obtain further information as to what rules and procedures to follow in gathering such confidential information as would be necessary for such a study. The following rules were assembled as a result of these conferences:

#### GUIDES FOR GATHERING EMPLOYMENT DATA

1. Employers are interested in any sound plan which promises an improvement or an aid in solving employee problems.
2. Any form which is to be used for employee rating research must be businesslike and complete.
3. Employers will not as a rule take time to fill out a stereotyped questionnaire.
4. Information of this sort must be secured by individual contacts rather than by mail.
5. All contacts with employers should be made by previous appointment.
6. Confidential information such as the nature of the material desired can be obtained only to the extent that it be treated as confidential in so far as names are concerned.

On the basis of information which had been gathered through the group conferences an employee rating book was developed. The book was divided into four parts as follows:

1. Case history
2. Personal characteristics
3. Reasons for present case status or job progress factors
4. Employers comments and suggested corrective methods

## I. CASE HISTORY

The purpose of the case history was to have a record of the types of industries, to evaluate the efficiency of employment officers, to determine the status of the employee at the time the record was made (whether he be at present employed or on relief, etc.), to check the methods by which the employee was selected, the source from which the employee was selected and the educational training which the employee had had previous to the time of rating.

## II. PERSONAL CHARACTERISTICS

Previous studies made by authorities in personnel management have been undecided as to the actual number of personal characteristics by which an employee should be rated. The booklets contained 42 personal characteristics which had been gathered from articles which had been written by personnel directors, from rating sheets of various employers, and from information gathered from the previously explained conferences which were held on employee problems.

## III. REASONS FOR PRESENT CASE STATUS

This section of the rating book was a sort of check against the section called "Personal Characteristics." In evaluating this section of the booklet, they were called job progress factors. They represent the judgments of the employers as to why the employee was so whether it be of the advanced, non-advanced, or separated.

Quite naturally, then, many of these factors are negative ones, such as misfit, lack of training, etc.

#### IV. EMPLOYERS COMMENTS AND SUGGESTED CORRECTIVE METHODS

It was assumed that after the employer had analyzed the employee to the extent of checking him against 42 personal characteristics and 32 employment progress factors, he (the employer) would have some idea as to what remedies he might suggest as preventive measures or upgrading methods which, if followed, might improve any individual under similar circumstances. The purpose of this section of the book, of course, was to gather material by which the vocational department might be improved and to give the employer a chance to express his opinion as to wherein the faults were.

#### GATHERING THE DATA

The booklets were delivered in person to 50 employers. At the time they were presented to the employers, an instruction book was likewise presented which contained full explanations as to how to fill out every item in the booklet. Time was taken to sit down with the employer and talk with him, explaining how the job was to be done. Forty-five of the 50 employers returned the booklets filled out as directed. The data gathered in the booklets was compiled into 19 tables and four charts. The purposes of the charts were:

- No. 1--To illustrate by graphic analysis the case history section of the booklet and to determine to what extent the employer was seeking employees from the vocational departments of the high school and to otherwise see what the distribution of employee supply was.
- No. 2--A graphic analysis of employees to determine the educational training of the employees and also to see to what extent employers gave time or accomplishment credit to graduates of vocational schools, and to see if they made any educational distinction between other educational institutions.
- No. 3--A graphic analysis of personal characteristics and their relation to employee advancement, non-advancement, and separation. The purpose of this chart was to illustrate the three types of employees in percentages of worth against 42 personal characteristics.
- No. 4--A graphic analysis of the employer's recommendations for improvements. The purpose of this chart is to illustrate graphically the employer's opinions of the various school systems, what they can do for improvement and in turn what the employer himself might be able to do to remedy bad situations.

The 19 tables are for the purpose of analyzing the three types of employees to determine employment characteristics.

The analysis of employee educational levels, made by taking the totals of all of the employees and checking them against the various types of schools, shows that the majority of employees came from the high school, having had a general education, while only  $8\frac{1}{3}$  per cent came from vocational departments. This section of the study completely answers questions one and two, and the



answers to these questions are thus given based on the above findings:

1. Industry as a whole gives only a small degree of credit to graduates of vocational departments when they enter industry.
2. Employers as a whole do not make a preferable distinction between vocational graduates and regular high school graduates in favor of vocational graduates. The study will show that the favor is for the regular high school graduates instead of those coming from the vocational departments.

#### EMPLOYMENT HABITS

By taking the ratings of the three types of employees against the 42 personal characteristics, and by again taking the ratings of the three types of employees against the job progress or case status factors and calculating a probable percentage for minimum expectancy of advancement, a composite list of the two charts was developed which may be called a complete list of employment characteristics or habits. This constitutes the answer to question three of this study and is thus answered.

Table 32, entitled "Employment Characteristics," is the result of the findings of this study and is thus presented.

#### EMPLOYERS SUGGESTIONS FOR EMPLOYEE CORRECTIVE METHODS

From the analysis of the material which was gathered in the category of employer suggestions the employer recognizes the following problems:

1. He should have more selective methods.
2. He should improve vocational and social counseling within the plant.
3. Required to continue education while employed.

If the list of 47 employment characteristics is to be accepted as existing employee rating factors, then they automatically become efficiency devices by which an employer may improve (1) his employment methods and (2) his vocational and social counseling system within the plant. This leads to the answers to question four of this study which is as follows:

These employment characteristics would be of value to the employer as follows:

- A. To use them as a rating chart when making an analysis of prospective employees.
- B. To use them as a rating chart when checking the progress of employees on the job.

#### IMPROVING THE VOCATIONAL PROGRAM

According to the employers' statements, the following improvements in the schools should be made:

1. Improve social and vocational counseling in the grade and secondary schools.
2. Encourage closer cooperation between the school and employer.
3. Improve methods of checking training in the grade and secondary schools.

By these deductions the question five of the study is answered as follows:

1. Improve our social and vocational counseling systems in the grade and secondary schools.
2. Set up more industrial advisory committees for the vocational departments and see to it that they function as advisories.
3. Improve the general training program in the grade and secondary schools to the extent that the subject matter and work done will be more directly in line with contemporary needs of individuals and more directly allied with industry.
4. Set up a better functional program for student advisement by tying the advisory systems with the parent organizations in order that those who need guidance and counseling may get it through a source which is directed by the regular advisor or teacher in the school.
5. Improve the vocational training program in the schools and make them function in a way which will parallel the work the boys in the vocational departments will do when they enter industry. This can be done by closer cooperation with industry and by having more of the work directed by the advisory committees.
6. Set up a more definite program of mathematics for all students in the vocational department.

The above answers to question five are actually recommendations and should be observed as such. In addition to the above statements the following recommendations are made:

1. If industry is to give time or accomplishment credit to graduates of vocational schools when they enter industry, then the vocational industry must adhere to the advice offered by the trade advisory committee. The recommendation is that the local programs in vocational education shall follow more closely the advice

given by the trade advisory committees.

2. If the vocational department has something that it thinks is good, then advertise it. Let industry know that you have a good vocational department and are turning out good students.
3. Develop aptitude tests for measuring abilities of students.

If industry accepts the trends toward aptitude tests, as has been found by the review of literature of this study, the vocational schools should be leaders in the field of employee selection and rating.

#### RECOMMENDATIONS FOR THE IMPROVEMENT OF EMPLOYER-EMPLOYEE RELATIONS

1. Strengthen personnel management by employing a personnel manager.
2. Set up application blanks and personal analysis charts based upon the employment characteristics compiled from this study.
3. Set up employment record cards or rating charts based upon the employment characteristics compiled from this study and use them for rating the daily progress of the employees.
4. Require all employees regardless of age to attend some type of educational institution while employed.

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T H E S I S

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AGRICULTURE AND MECHANIC ARTS

August 2, 1940

I HEREBY RECOMMEND THAT THE THESIS PREPARED UNDER MY  
SUPERVISION BY CHARLES W. COX  
ENTITLED FUNDAMENTAL EMPLOYMENT CHARACTERISTICS OF THE  
METAL TRADES INDUSTRIES IN THE SAN FRANCISCO BAY DIS-  
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DEGREE OF MASTER OF SCIENCE  
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Chapter I  
INTRODUCTION

San Francisco Bay District in California is that locality which surrounds San Francisco Bay. It includes as principal cities San Francisco, Oakland, Alameda, and Berkeley. It is a manufacturing center of various types of industries, with a major proportion of its work in the metal trades line. For several years the writer, who is Director of Vocational Education for the city of Alameda, has been working in close harmony with industrial leaders in placing boys who have completed their training in the Vocational Department of the Alameda High School.

In Alameda a large evening trade extension program has been built up. An advisory committee of employers consisting of leaders in the metal trades industries constitutes the major governing employers committee. The term "governing committee" is used for the reason that this committee actually decides the policies with regard to courses of study and placement. It also sets down the rules and policies by which other committees work with the Vocational Department of the city of Alameda.

For many years the greatest problem that has confronted this committee and, incidentally, all industries of the Bay District, has been that of determining why some employees make good and others either fall by the wayside or merely stand still.

This implies that there are three recognized types of individuals. The first classification, known as the "Advanced" type, very definitely and without much effort rises from one pay roll job to another. The second one, called the "Non-Advanced" type, constitutes the type of employee who holds a specialist job or some other job beyond which, for some reason or other, he never rises. The third type, known as the "Separated" individual, is the one who, from lack of the development of certain employment characteristics or traits, is eventually dismissed for cause. The following illustration will give a better picture and a better understanding of the three types of employees referred to:

Let us suppose that three men of apparently the same average educational level got jobs in a factory, or perhaps in separate factories. One man advanced from his first position to the next higher up, and so on, to possibly that of general manager of the concern.

The second man continued plodding along in the same job into which he was placed when he was hired. He seemed to go neither ahead nor backwards. In the minds of everyone he was a splendid fellow, a very likeable person, with a fairly good education.

The third man continued in his job, doing very well for the first few months, and

possibly was even advanced to an elementary leadership job. Something seemed to go wrong, however. The boss lost confidence in him and discharged him.

In the above cases these questions are asked: Why did the first one advance, the second one stand still, and the third one get discharged? Employers would like the answers to these questions because it would enable them to set up a more efficient system of personnel management and a better scheme of rating employees after they are on the job. If they knew the answers to all the questions, they might be convinced that it would be well to set up an employee training system whereby they could, by training, overcome the weaknesses of their employees to the extent that they would become more efficient workmen and if the schools, both public and private, knew the answers to those three questions, they would be able to set up a more efficient pre-trade training program and a better pre-employment counseling procedure. It is also likely that the schools could set up a more efficient social counseling system than is to be found at present.

Previous research does not seem to solve the problem indicated in this study. Personality is dealt with in a general form and with a wide diversity of opinion as to its nature and development. Likewise, many if not all of the social habits are dealt with in a more or less general manner. The problem remains, however, not only to determine what employment characteristics



are, but to find wherein the weaknesses lie in the manner in which employees are selected for employment, and the accents and emphasis which the vocational school should place upon certain employment characteristics or habits in order that the student will know what may be expected of him when he seeks employment in industry.

Our various vocational systems throughout the country have developed an apparently efficient system of placement in industry. The records herein developed, however, will show that, according to this study, the majority of employees inducted into industry are not taken from the vocational schools, though it would seem more efficient that they should be.

The problem which this study attempts to solve is to determine fundamental employment characteristics and to recommend ways in which the local vocational training program may be improved in its efficiency. The solution of the above depends upon answers to the following questions:

1. To what extent does industry give time or accomplishment credit to graduates of vocational schools when they enter industry?
2. Do employers make a preferable distinction between vocational graduates and regular high school graduates?
3. What constitutes recognized employment characteristics and other assets which might be used as teaching responsibilities and employment aids?

4. In what way would these employment characteristics be of value to the employer when analyzing a prospective employee or checking the progress of an employee?
5. What measures or methods may be employed to improve the efficiency of the vocational program?

This study will be of aid to the unemployed, as it will provide a means of analyzing their needs in terms of employment assets. It will help to determine the nature of remedial training for those people who have fallen into unemployment, but who are rehabilitation material if the right kind of guidance and the right kind of training can be provided.

As a means of answering some of the subordinate questions stated above, a review of the available literature has been made and reported in the following chapter.

## Chapter II

## REVIEW OF LITERATURE

Technological developments and labor laws have given industry a new interpretation of personnel management. The old method of hiring a man just because he looked good and firing him because the boss did not like him, has given way to a new logic and a new understanding of employment and employee management. This change in thought and methods has caused many of the books and much of the literature heretofore used as guides in personnel management to become obsolete, especially as reference material pertaining to employment habits.

Walters (14:S395-404), 1937, Director of Personnel School of Engineering, Purdue University, West Lafayette, Indiana, states, "One of the greatest problems in industry today is to determine the progress of an employee, his present worth and the prospect of his future development." He sincerely believes in a breakdown analysis of employment characteristics. The great difficulty he has found is that too many employers use the numerical value of such ratings as final in their judgments. Such action would seem unwise in a great many cases.

Industrial leaders (see appendix) who have cooperated in making this study are agreed that the most authentic information on the subject of employment habits is to be found only in the more recent books and periodicals, since government control of rules and laws affecting labor control in factories has changed the entire perspective of employee management. Furthermore, recent labor activities and their effects upon factory management have created a desire on the part of the progressive employer to deal with employees on a basis of human understanding and tolerance.

The above review indicates that the data needed to answer Question Four will not be found in available books or literature unless they are very recent. Furthermore, it justifies the use of other means of gathering the needed data.

Business Week (13-:32-3) states that Jones & Laughlin Steel Corporation published a manual for use in their own steel corporation, in which they have developed an employee rating chart. This chart contains the following items:

Table 1.--EMPLOYEE RATING CHARACTERISTICS

- 
1. Job performance
  2. Overhaul knowledge of job
  3. Industrious and dependable
  4. Aptitude and ability to learn
  5. Initiative
  6. Judgment
  7. Disposition and attitude
  8. Personality
  9. Safety
  10. Health and physical fitness
- 

They rate each one of these characteristics either excellent, above average, average, below average, or poor. They attempt to break down each one of these weighting items into five divisions. In other words, each one of the items like "excellent" or "poor" would be rated from one to five. The total is extended to the end of the column, thereby giving the general total for the entire rating card. The difficulties with this type of rating are that it becomes quite cumbersome and that no two persons would fill it out alike.

The article herein referred to gives the impression that such industries as Jones & Laughlin Steel Corporation and Atlantic Refining Company are at the present time in the act of setting up a workable rating scheme by which the supervisor periodically rates employees on their present efficiency and their potentialities. As noted in this same article, the National Industrial Conference Board has compiled a set of

employment rating sheets which, according to their recommendation, should be used in all employment offices for (1) eliminating the undesirable employee, (2) finding the complete potentialities of the employee.

This is further recognition of the need for such an analysis as indicated in Question Four, but does not furnish the complete answer to the question.

In analyzing personal characteristics and their relation to employment, initiative rates high as an employment characteristic. Drake (6:140-46) tells of his experiences with a number of factory executives who attended a class for the purpose of making a study in human engineering as a means of improving shop conditions. All recognized the fact that in the past technical efficiency was the outstanding problem of a factory. For that matter, it still is, although the major emphasis has now shifted to sympathetic and efficient control of the human element. "Management," says Drake, "is well on its way toward recognition as a profession." Unlike the old plan of handling human beings as mere factory assets, the new term of management infers the development of individual employees as partners in business, and as such should be treated with every common courtesy that would be extended a partner in business, even to a reasonable division of profits in the form of salaries or bonuses.

This group of executives was intensely inter-

ested in specific training for all employees, based on the premise that human learning is a continuous thing. The chief motivating factor for such training would not be individual promotion, nor financial reward, but the realization of success in job achievement. Recent governmental legislation has complicated the internal control of factory personnel and necessitated a higher type of management--one which would deal more efficiently with the outstanding labor problems and other things which affect efficient human management.

During the past two years Drake made a discovery of a new mental function which he claims is neither intelligence nor scholarship. He calls it the "Iota Function." It is present, in varying degrees, in all persons, and is independent of intelligence or scholarship. It may be defined as that ability which one has to make increments of gain in knowledge in various subjects. He is under the impression that this may be the reason why some persons with low academic or scholarship performances make good executives, and sometimes the reverse. The presence of this "Iota Function" is indicated by individual initiative development; it is one's ability to do the right thing at the right time in an emergency, or to think correctly ahead of the instructions given him. Drake's study lends further support to the analysis procedure followed in determining the

data in answer to Question Four.

Labor Review (2:346-47) states that in an article originally published in the December, 1935 number of the "Personnel Journal" reference was made to a study of business offices of seventy-six corporations. The writer apparently did not feel that one's ability in skills had much to do with his success in clerical work, inasmuch as only 10.1 percent of the cases studied were discharged for lack of skills. The other 89.9 percent lost their jobs because of failures in personal characteristics. The findings of this study are herein given.

Table 2.--PERCENTAGE DISTRIBUTION OF MOST COMMON CAUSES OF DISCHARGE AND OF DEFICIENCIES PREVENTING PROMOTION

Order of importance	Personal characteristics	Percent of persons discharged for this cause
1.	Carelessness - - - - -	14.1
2.	Lack of cooperation- -	10.7
3.	Laziness - - - - -	10.3
4.	Illness- - - - -	8.5
5.	Dishonesty - - - - -	8.1
6.	Outside interests (overdeveloped)- - -	7.9
7.	Lack of initiative - -	7.6
8.	Lack of ambition - - -	7.2
9.	Low in promptness- - -	6.7
10.	Disloyalty - - - - -	3.5
11.	Discourtesy- - - - -	2.2
12.	Lack of neatness - - -	1.6
13.	Overdeveloped ego- - -	.9
14.	Irresponsibility - - -	.3
15.	Unadaptability - - - -	.3
	Total - - - - -	89.9



The article is very short and does not go into detail other than to state a very important conclusion:

Although the present economic disturbance has caused the educational program in many communities to be reduced, the responsibility of the schools for an educational program for the purpose of developing character has increased.

Many of the personal characteristics shown in the analysis of employment assets may be considered factors in character building and therefore answer part of Question 3, which refers to other assets which might be termed employment aids.

Driver (7:137-62) thinks that all plans of rating should be made out for a specific organization to meet its job demands, rather than for employers to accept as a whole any rating plan which may be on the wholesale form for rating personal characteristics or habits. In developing and adapting a personnel rating system he gives the following reasons or conditions when or why a personnel rating system should be adopted:

1. When the size of the company makes it impossible for the personnel manager to know all of the employees.
2. Merit rating is needed in order to reduce the number of recommendations for salary changes made on a basis in accord with the present policy of the company.
3. In the attempt of the personnel division to install better methods of selection it is necessary to standardize these methods against records of actual performance of various individuals on the job.

4. Where the policy of the company is to promote from within, wherever possible, more information is actually required by the personnel manager about each individual in order to guide him into the job for which he is best fitted.

Driver says this program would have a three-fold value:

1. It would assist the employee by enabling him to receive adequate recognition for whatever services he performed.
2. It would help the supervisor or foreman to make more perfect and more tangible ratings among his subordinates.
3. It would aid the personnel division to improve the effectiveness of the policies in the office.

The writer did not set up a list of the characteristics or traits against which the employee was rated, but he did set up the rules which are adopted by the Atlantic Refining Company and used as the constitution or guide for developing rating charts. These rules are as follows:

1. No more than ten traits shall be considered efficient.
2. The traits to be selected are to be considered as tangible items; otherwise, the rater will be forced to guess.
3. The traits should provide supplemental information for information already in possession of the personnel division.
4. The traits should be chosen in order to sample wide divergent aspects of the individual's performance.
5. Each trait should be capable of description in simple, direct terms.

6. Each trait should be considered from the point of view of its importance in the greatest number of jobs.

It will be noted that these items deal directly with some specific jobs and, as the writer indicated, it was his intention to make them specific for this one particular firm with no consideration as to whether or not they would adapt themselves to other organizations. While he did not set up a list of traits used for this rating system, he did mention a few-- accuracy, industry, ability to learn, cooperation, production speed, and others which would be directly tangible as rating devices against this specific job. The premise upon which these rating charts were performed was based upon simplicity; therefore, in order to determine whether or not the employee was cooperative, the foreman answered the question, "Does the employee work successfully with others?" instead of merely checking the item "cooperation" with yes or no. He says that only through a recognition of the deficiencies as well as the abilities can one place an employee in a position for which he is best fitted, and in which he will prove most satisfactory.

It is quite evident that the author of this article believes sincerely in a merit rating system, but he points out that the trouble with the average merit system is that it fails because of over-enthusi-

astic performance at the beginning and a waning of interest after the system gets into operation.

This article answers that part of Question 4 which has to do with the checking of an employee for success on a job and progress to advanced employment.

Cleeton (1:197-206), in his article which has to do directly with the analysis of employees, describes the following three eras through which employee management has passed. He says it is now to be found in the last one mentioned.

1. "Mailed-Fist Era"

In short, that was the time when an attitude of "treat them rough and make them like it" prevailed. The methods were dictatorial and militaristic. This method of handling employees, according to the writer, existed up to the World War, after which it gradually disappeared.

2. "Rules and Regulations Era"

This had its inception after the World War when the viewpoint grew out of efforts to put the personnel management on an efficient basis. The motives were laudable, but the results were often disappointing.

3. "Individualistic in Philosophy and Clinical in Method"

The article deals most exclusively with this number three category, in which the author makes it plain that the individual method of handling employees is by far the most efficient, both from the standpoint of human interest and factory economics.

He states that every personnel executive has probably had occasion to deal with employees who have injured their standing in the company through (1) abuse

of privileges and shop rules, (2) social infractions, such as lateness to work, excessive absence, dishonesty, insubordination, quarreling, fighting, drinking, immorality, neglect of duties, and disregard for safety precautions. He says that the actions which most frequently require discipline vary according to different organizations and that therefore, it is desirable that each company study its own discipline records and determine the main sources of difficulty through problem and personnel analysis. He refers to a study made by Dr. John M. Brewer of Harvard University, in which Dr. Brewer found that 62.4 percent of 4174 cases of discharged employees had lost their jobs because of "personal characteristics" such as insubordination, unreliability, absenteeism, etc. In this study Dr. Brewer found that only 34.2 percent of this same number lost jobs because of lack of skill or ability to do the job. From this evidence Driver agreeing with the editor of Labor Review (4) states that it would appear that the most serious disciplinary actions result from personality weaknesses more frequently than from inability to do the job. He also states that this information was corroborated by Mr. William C. Ackerly, Secretary of the New York Employment Managers Association, who studied 4000 discharges in business institutions. The reasons reported for discharge and the percentages are herein

given:

Table 3.--EMPLOYMENT CHARACTERISTICS AS CAUSES FOR DISMISSAL

Characteristic trait	Percent of persons discharged
Carelessness - - - - -	14
Non-cooperation- - - - -	10
Laziness - - - - -	10
Dishonesty - - - - -	8
Attention to outside interests	8
Lack of initiative - - - - -	7
Lateness - - - - -	7
Lack of effort - - - - -	7
Disloyalty - - - - -	3
Discourtesy- - - - -	2
Miscellaneous- - - - -	24

He states that faults are the result of bad habits. These habits must be corrected before the fault can be eradicated. Punishment may change the worker's attitude and still not influence his future behaviour. He suggested the clinical approach alone would bring about the desired behaviour changes, and intimated that less concern be given to punishment as a cure. The writer continues, at great length, in setting up an analytic form for arriving at the cause of the infraction of the rules which, under recent normal conditions, might have caused the employee's dismissal from service.

Although the above review does not answer any of the subordinate questions, it does lend support to the analysis procedure used in this study to determine fundamental employment assets.

Dodge (4:50-1) made a study of fifteen department store heads in a large organization to determine what traits are most important for executives. After much argument twelve traits were agreed upon as being most important, and are thus set up in the order of their agreed importance:

Table 4.--SUCCESS FACTORS FOR EXECUTIVES

Characteristics	Explained
1. Cooperation	1. Ability to get along with others
2. Sense of humor	2. Cheerful--can take a joke
3. Intelligence	3. Ability to think quickly and thoroughly
4. Self-control	4. Even-tempered--not easily provoked
5. Broadmindedness	5. Tolerant of the other fellow's opinions--willing to listen
6. Willingness to assume responsibility	6. Can take initiative in making decisions within the bounds of own authority
7. Decisiveness	7. Acts quickly but correctly
8. Appearance	8. Well, but not overdressed
9. Tact	9. Can correct the other fellow's error without leaving feeling of resentment

Table 4.--SUCCESS FACTORS FOR EXECUTIVES (continued)

Characteristics	Explained
10. Interest in others	10. Always glad to listen and talk to the other fellow about his personal problems
11. Reliability	11. Dependable in carrying out a promise or order
12. Sincerity	12. Leaves no feeling of doubt as to the reality of opinions and feelings he expresses

The above characteristics were arranged in the form of test sheets and each of the fifteen department heads was required to rate the other fourteen. The results are given in the following table:

Table 5.--CORRELATION BETWEEN TRAIT RATINGS AND RATINGS FOR EXECUTIVE ABILITY

Trait or characteristic	Coefficient of correlation
Personal appearance - - -	.66
Intelligence- - - - -	.61
Willingness to assume responsibility- - - - -	.59
Self-control- - - - -	.49
Broadmindedness - - - - -	.46
Decisiveness- - - - -	.44
Tact- - - - -	.43
Reliability - - - - -	.41
Cooperativeness - - - - -	.41
Interest in others- - - - -	.33
Sincerity - - - - -	.30
Sense of humor- - - - -	.11



By their own estimate these department heads would rate only 43.7 percent as executives if the above charts are to be relied upon. The results of the test, however, show a specific need for training in personal traits, which is one of the conclusions of this study. Dodge, in his study, made no attempt, according to the article, to set up any remedy for the apparent weaknesses of the group.

Dodge's report does not furnish the answer to any of the subordinate questions, and its only value is the procedure set-up to determine employability for the purpose of initial employment and upgrading.

Hassell (10:97), in a study to determine the occupational status of boys out of school, devoted a part of his study to the determining of employment characteristics. He interviewed executives in twenty-five business organizations, including the following:

Table 6.--LIST OF INDUSTRIES INTERVIEWED BY HASSELL IN A STUDY TO DETERMINE THE OCCUPATIONAL STATUS OF BOYS OUT OF SCHOOL

Type of industry	Number of industries interviewed
Grocery stores -	6
Drug stores- - -	5
Cafes- - - - -	3
Service stations	3
Dry goods store-	1
Lumber yard- - -	1
Feed store - - -	1
Theatre- - - - -	1
Florist shop - -	1
Newspaper plant-	1
Railroad shop- -	1
Ranch- - - - -	1

In reply to questions asked as to employment characteristics for beginning employees, the following results were obtained:

Table 7.--EMPLOYMENT CHARACTERISTICS OR TRAITS

Characteristic	Frequency number	Percent
Physical condition- - -	25	100
Alertness - - - - -	22	88
Reliability - - - - -	22	88
Accuracy- - - - -	21	84
Speed - - - - -	21	84
Agressiveness - - - - -	20	80
Pleasing personality in contact with others -	20	80
Neatness- - - - -	20	80
Initiative- - - - -	18	72
Promptness- - - - -	18	72
Honesty - - - - -	18	72
Tact- - - - -	17	68
Desirable personality -	17	68
Attractive appearance -	16	64
Pleasing personality in contacts with public	12	48

It was pointed out in this study that 88 percent of the 25 employers studies selected their employees by personal interviews only, while the other 12 percent selected boys who were recommended by other employees. In no case did the school, as an employment agency, enter into the picture at all.

A further study was made to obtain from the same sources the reasons why boys fail on the job. The results of this study are herewith shown:

Table 8.--THE REASONS FOR DISMISSAL--(HASSELL'S STUDY TO DETERMINE THE OCCUPATIONAL STATUS OF BOYS)  
(BASED ON RETURNS FROM 25 EMPLOYERS)

Personal characteristics	Frequency	Percent
1. Laziness - - - - -	23	92
2. Lack of reliability- -	23	92
3. Inaccuracy - - - - -	20	80
4. Lack of self-control -	18	72
5. Dishonesty - - - - -	18	72
6. Lack of ambition - - -	17	68
7. Untidiness - - - - -	16	64
8. Lack of personality- -	16	64
9. Carelessness - - - - -	8	32
10. Lack of initiative - -	8	32
11. Discourtesy- - - - -	7	28
12. Lack of interest - - -	6	24

The study showed "laziness" and "lack of reliability" to be the most frequent causes of dismissal, while items such as "lack of initiative" and "lack of interest" ranked rather low as causes for dismissal.

This section of Hassell's study has a very

important bearing upon the present study in the development of personal employment characteristics, and answers in part questions three and four.

Gillette (9:60-2) describes the hiring system as used by The Trane Company. The personnel director at that company made a complete analysis of the pay roll jobs in the plant for the purpose of allowing an applicant to indicate, according to his desires or abilities, the type of work he would most prefer as well as the type of work he least preferred or did not care for at all, or for which, because of some personal reason, he felt he would not be suited.

In addition to the pay roll job selection card, there is another form used by the hiring office, which is an attempt to rate the applicant against certain employment characteristics.

Table 9.--EMPLOYEE RATING CARD

Rated characteristic	Ratings					Total
	5 High	4 Good	3 Average	2 Fair	1 Low	
Appearance						
Pleasantness						
Sincerity						
Poise						
Ambition						
General Intelligence						
Mechanical Ability						
Dependability						
Persistence						
Speed						
TOTAL						

## Test Results

Name of test	Grade	Time	Percentile

Remarks by interviewer \_\_\_\_\_

While this rating card is obviously very general in its construction, and it is hardly likely that any two people would fill it out alike when rating the same individual, it does indicate that industry is thinking in terms of analytic grading when interviewing applicants. Its content will be helpful in substantiating employment habits or characteristics. This article answers in part questions three and four.

George (8:55) in a brief article illustrates by means of a rating chart Fig. (9) the method used by

American Steel Foundries in evaluating apprentices in terms of progress in employment characteristics. This firm works closely with the public school in Chicago, and a copy of the rating sheet is sent to the school authorities and rerated in terms of actual percentage. Following is the copy of the chart used:

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Table 10. APPRENTICE RATING CHART USED BY THE AMERICAN STEEL FOUNDRIES.

Traits		Weight		Weight		Weight		Weight	Points
1. Ability to learn	Quick	4	Fair	2	Slow	1			
2. Dexterity	Remarkable	4	High	3	Fair	1	Slight	0	
3. Capacity for work	Unusual	4	Industrious	3	Average	2	Lazy	0	
4. Judgment	Uncanny	4	Sound	3	Average	1	Poor	0	
5. Initiative	Exceptional	4	High	3	Fair	2	None	0	
6. Desire to make good	Pronounced	3	Noticeable	2	Low	0			
7. Ability to take orders	Outstanding	3	High	2	Average	1	Low	0	
8. Personal habits	Satisfactory	3	Below Par	1	Dangerous	0			
9. Common loyalty	High	3	Good	2	Fair	1	Lacking	0	
10. Perseverance	Unlimited	3	Ample	2	Moderate	1	Weak	0	
11. State of health	Excellent	2	Sound	1	Poor	0			
12. Ability to mix	Natural	2	Fairly good	1	Doubtful	0			
TOTAL									

The author does not state what the (0) ratings indicate other than to imply an "unwanted individual." If such is the case, then it would seem that a low rating in any one of the twelve traits would be grounds for dismissal.

The article has a direct bearing on this study in its breakdown of employment traits and rating weight, and answers in part questions three and four.

The author does not state what the (O) ratings indicate other than to imply an "unwanted individual". If such is the case, then it would seem that a low rating in any one of the twelve traits would be grounds for dismissal.

The article has a direct bearing on this study in its breakdown of employment traits and rating weight, and answers in part questions three and four.

Kress (11:66-70) has been chiefly responsible for the development of a rating plan which has been installed in approximately 100 plants ranging from 25 to 2000 employees each. It is his belief that the plan herein discussed will fit any plant, regardless of size. The actual work of Kress analyzes both production work and employees, but it is not the intention here to bring out anything except information which has a great bearing upon employees. The whole plan submitted is based upon the philosophy that no two people are equal. Therefore, management should give consideration to that inequality by analyzing each individual on a basis of certain outstanding personal characteristics or employment habits. The manager could then--

1. Adjust an individual's salary on a basis of his work.
2. Indicate the potential possibilities of employees and thus furnish intelligent basis for promotion.



3. Enable the supervisor or foreman to do a better job of appraising individuals by having concrete factors to work against.
4. Enable the supervisor, of course, to become alert, analytical, and careful in appraising men.
5. Stimulate interest in self-improvement on the part of the individual employees.
6. Develop confidence in management with fairness and sincerity.

The one phase of the article which has a direct bearing on this particular study is his plan of action in which he suggests three steps in developing an employee rating plan, as follows:

1. Select the factors against which performance is to be rated.
2. Determine the rates or points to be given each.
3. Write up specifications for each degree of each factor.

This is exactly what the present study proposes to do, following the same steps that were taken by Kress. He has developed a rating chart slightly different from those found in any of the other studies, in which he divides employee rating into answers for three questions, as follows:

1. What has he done up to date?
2. What can he do?
3. Can you rely upon him?

Following is a skeleton of the chart, showing how it was developed and the method by which ratings are made.

Table 11. EMPLOYEE RATING CHART AS DEVELOPED BY KRESS (11-97: 66-70)

	High						Low	
WHAT HAS HE DONE?	25	23	20	18	15	13	10	8
1. Quality of work	Does he consistently do an excellent job?		Does he usually do a good job?		Is his work usually pass-able?		Is he careless?	
	20	18	16	14	20	10	8	6
2. Quantity of work	Is his output un-usually high?		Does he usually do more than expect-ed?		Does he turn out the re-quired amount of work?		Is he slow and below normal?	
WHAT CAN HE DO?								
3. Adaptability	15	13	12	10	9	7	6	4
	Does he learn new duties and meet changing conditions quickly?		Can he turn from one type of work to another with little difficulty?		Is he a routine worker?		Is he slow to learn and has dif-ficulty in adjusting himself?	
4. Job knowledge	20	18	16	14	12	10	8	6
	Is he an expert on his job? Does he make the most of his knowledge?		Is he well-in-formed on his job and related work and rarely needs assistance?		Does he know his position fairly well?		Is his know-ledge of his job limited? Does he show little de-sire for im-provement?	

Table 11. EMPLOYEE RATING CHART AS DEVELOPED BY KRESS (11-97: 66-70) (continued)

	High				Low			
CAN YOU RELY UPON HIM?								
5. Dependability	10	9	8	7	6	5	4	3
	Have you confidence that he will finish the job with what you want and when you want it?		Does he follow instructions and do what you expect him to do with little follow-up?		Does he generally follow instructions but occasionally needs assistance?		Does he here-quire frequent follow up?	
6. Attitude	10	9	8	7	6	5	4	3
	Is he exceptionally good team-worker and ready to try out new ideas?		Does he meet the other fellow half-way in willingness to cooperate?		Does he usually cooperate after a slight reluctance?		Does he cooperate only when he has to?	
Total	100	90	80	70	60	50	40	30

It will be noted that in each one of the squares there are two ratings. It is seen that the average employment manager might be somewhat confused with such a plan because of his inability to distinguish between the two weights that are given in each one of the items. In each one of the blocks, incidentally, there is a question which is intended to signify the employee's place in the various blocks from low to high.

The only thing that would seem wrong with this plan is that it is rather complicated. The one complaint of industry is that in rating employees it is difficult to find a scheme which is simple enough that all foremen will rate it alike. This article, however, is very important, and quite to the point of the present study, inasmuch as it does represent a system that is being used in a large number of plants in the United States. Even though industrial leaders may not agree that it is entirely efficient, they do agree that it is an improvement over the old method of rating a man which was simply based upon the philosophy that "if he could not do the job" he could get out. This article is another step in answering questions three and four.

It is seldom that industry seems to pay much attention to the value of I.Q. tests, but Petterson (12:45-6) seems to be one of those unusual persons in industry who has found that I.Q. tests are quite important.

He does not give any other form of tests for picking either employees or for promotion, but he claims that he can put his finger on any type of person he wants through the record (training and intelligence quotient) which he keeps in his desk. The writer includes this article in the present study because it would seem that Petterson, who is superintendent of a plant which employs about 3200 employees, is a great believer in public education and a staunch supporter of the State Vocational Training Plant of Connecticut and, likewise, a strong backer of the local trade school with which he is cooperating. His article indicates that he is not only a strong believer in his employees being students while employed, but insists that they shall do their studying outside of working hours. As he states it, he does not think it is practical to have the work day interfered with. It is pointed out, however, that his shop is the laboratory for his practice, and at night and on Saturday mornings the mill is turned over to the instructor who is present-time director of a trade school at South Manchester.

Petterson's unique method of selecting employees for his mill on the basis of intelligence tests and his requirement that the beginners all attend classes in evenings and on Saturdays have apparently not only raised the standards and morale of his employees, but have placed his establishment in very high estimation in

the minds of the people in his community. This article answers in part question four and at the same time deals with methods of selecting employees, which is directly in accordance with the findings of this study.

It is difficult to find even one employer who is a believer in intelligence or aptitude tests, but Drake (5:44-7) seems to have gone a long way in developing tests as an efficiency device in the selection of employees. He says that as it costs money to train employees, we should not waste it on people who are inferior. He says that aptitude tests will help to weed out the accident-prone, those of poor hand coordination, and those who will always be low in production. His company began testing applicants during 1935 when they used the Otis S.A. I.Q., Stenquist II, Minnesota Paper Form Board of the pencil and paper type tests, and the Wiggly Block, Spatial Relations, and Mechanical Assembly performance tests. The results were so outstanding in efficient employee selection and the elimination from the pay roll of those who were accident liabilities that now they have developed a number of objective tests which, he claims, fit the job much better than any that can be purchased. The article would indicate that the tests are not altogether for the purpose of eliminating employees, but of finding hobbies and other abilities which employees have that might be assets to them in

adjustment to better salaried jobs. The author states that he believes that the future employee training activities should be based upon objective tests related to the jobs in which the training is set up.

It would seem quite likely that if the Eagle Pencil Company will set up a system of employee selection which may be looked upon as a trend in industry, then the standards of vocational education not only will have to be greatly raised, but employers will also have to employ similar devices for testing individuals for the purposes of indicating specific abilities or lack of abilities.

While this article does not directly answer any of the questions set up in this study, it does have a bearing on questions three and four. This article will also aid in summarizing this study for the purpose of making recommendations due to the apparent trends that are evident in the use of aptitude tests for hiring.

The editor of Machinery (3:850), in a recent visit to the Humboldt-Deutzmortoren in Cologne, Germany, observed a rather unique system of developing responsibility, self-reliance, and integrity or plant honesty. The plant, which employed about 6,000 people, followed the system of picking out the men who were the most dependable and giving them a badge which read, "I inspect my own work." The group numbered about 500. Another group, much smaller than the first, numbering only 50,

after earning such a favor by the management, were given a brass badge which read, "I set my own piecework rates." The first group not only attained distinction by being their own inspectors, but received an increase in wages at the same time. Likewise did the second group of 50. So far as the company was concerned these were indeed very satisfactory efficiency devices, inasmuch as they cut down the cost of inspection and eliminated a lot of bookkeeping in rate setting. On the part of the employees it not only developed their production abilities to the highest degree, but it developed job pride and, naturally, integrity; for if one were caught cheating at the game he was playing he was immediately demoted, if not discharged. The statement was made by the manager of Deutzmortoren plant that the plan was entirely satisfactory, and he implied that it has been the means of creating higher standards among his workers as a whole.

It has seemed advisable to review this article because it has a direct bearing on what must be a very efficient form of employee rating and development which, undoubtedly, is being used in Germany at this time. If, out of this article, there is a betrayal of the devices which are used for the success of the system which seems to work as one man, why not incorporate such a plan in our own training system?

Inasmuch as this article sets up a plan for the



development of employment characteristics under the headings of responsibility, self-reliance and integrity, the article is a partial answer to questions three and four.

It will be seen that there is a similarity of employee rating procedures among all of the forms referred to in these articles. It has been observed in reviewing these articles that there is a common agreement among employers that the employee rating schemes now in use are badly in need of revision and, if possible, some objective form of trait ratings should be developed; but at present no one seems to know the answer. All employers who have used some form of employee trait rating, however, do agree that industry is at least making progress in the field of "human engineering".

This review has given a partial answer to questions three and four. No answer has been found to questions one, two and five. The data collected and its presentation in Chapter III should answer the remaining parts of questions three and four, and answer in full questions one, two and five.

### Chapter III

#### MATERIALS, METHODS, AND RESULTS

There are many stumbling blocks in the way of getting accurate information on employees who are either standing still or who have been dismissed. Industrial leaders hesitate to give out information on this subject at random, as they want to be sure that it is for the good of industry in general and that it will not be used as a whip against them.

The writer has worked very closely with industry and has always asked its aid in solving problems which concern both school and industry. Since employers are interested in any form of research that gets directly to the point and is not superfluous in its content, it was deemed advisable to select a number of outstanding employers who were interested in personnel work to help analyze the procedure to be used in gathering the information required for this study. With this in view, nine men (see Appendix) were selected whose activities with regard to employment had in some way made them exceptionally good material for a conference group. The primary intention was to carry the conference through in two or three meetings; the subject was so interesting, however, and there seemed to be such a desire on the part of all to

continue the study that it lasted through 27 meetings. All of the material gathered was related to this study and was used in part in setting up the information books (see Appendix) and other methods of employer approach which will be referred to later.

At the first meeting of the conference a general outline for the study was discussed and agreed upon. It was the consensus of opinion that, in order to study the job carefully and with any great degree of success, employment characteristics and employee ratings, made before employment, should be studied from the standpoint of one individual. This individual, a prospective employee desiring a job, makes application for it. If he is hired, what happens to him by way of ratings, either positive or negative? After much study, therefore, the main problem before the group was divided into four parts:

1. Making an application for a job
2. The employer's size-up of the applicant
3. The rating characteristics
4. The employer's rating characteristics of an employed worker

The following pages will represent an abstract of the work done in these committee meetings, and will be written merely as findings rather than a review in the first person.

## MAKING AN APPLICATION FOR A JOB

There are many ways in which one may go about getting a job. The extent to which a person fulfills all of the requirements of a particular application will help rate him in the employer's opinion. Following are the different procedures in applying for a position:

- A. The formal application. This refers to a blank form which should be filled out as completely as the interpretations of the applicant will allow him.
- B. The "pot-luck" letter. Here the applicant merely writes a letter to see whether or not any position is open.
- C. The applicant is recommended for a job. Stress is usually placed upon this type of application inasmuch as it is an assumption, of course, that the person making the recommendation is in a position to know not only the pay roll specifications of the job, but the ability of the applicant.
- D. The personal application. This may or may not imply that the applicant knows there is a job to be had and feels that he has the ability to fill the job, if there is an opening.
- E. Answering ads. This type of application may be a forerunner of any of the other four types, or it may be merely a development from the "Morning Gazette" where the applicant presents himself in line with dozens of others--all after the same job. In this, he may be the victim of hard luck as the job may be gone before he gets to the head of the line, or he may be one of the fortunate ones to be called in before the employment manager.

The applicant's situation at the time he needs a job will have considerable bearing upon which one of the above procedures he follows. Personal circumstances alone

will often control his choice of method. Regardless of what procedure is used, the main objective which the applicant has is to get a chance to present himself before the employment manager and to convince him that he is the man for the job. When he does get the chance for that interview, whether it be in the open on the hiring platform or in the employer's office, he will have a potential gauntlet to run in the form of situations which naturally arise in the formal procedure of hiring.

#### THE EMPLOYER'S SIZE-UP OF THE APPLICANT

There are three stages of the employer size-up of the applicant:

- A. The silent interview
- B. The oral interview
- C. Content of the oral interview

#### The Silent Interview

It was found that there are twelve traits or characteristics by which the applicant is rated when he first comes before an employment officer, even before he says the first word. Any one of these items may be the cause of his rejection. The items are thus explained:

1. Appearance
  - a. Is he smooth-shaven?
  - b. Are his fingernails clean?
  - c. Are there any apparent physical defects?
2. Health
  - a. Is his complexion good?
  - b. Are there any apparent mental defects?

## 3. Neatness

- a. Are his clothes clean and pressed?
- b. Are his shoes shined?
- c. Are general things which would go with the making of neatness well taken care of?

## 4. Personality

- a. Does he create a negative or positive atmosphere?
- b. Does he create confidence?
- c. Does he have a genuine smile?
- d. Is there a note of congeniality?
- e. Are there other factors that might be negative or positive?

## 5. Alertness

- a. Does he give you the appearance of being alive and ready to go?

## 6. Respectful Approach

- a. Did he take his hat off when he came in the door?
- b. Did he come in smoking a cigarette?
- c. Did he wait for an invitation to approach the desk?
- d. Are there other factors that would indicate respect or lack of respect for your office?

## 7. Poise

- a. Is he composed or fidgety?
- b. Does he carry himself well?

## 8. Age

- a. Does his apparent age make it advisable to consider him for the job?

## 9. Enthusiasm

- a. Are there unmistakable signs of enthusiasm, or do you think he just wants a job?

## 10. Specific Adaptation to the Job in Mind

- a. This would indicate his physical characteristics and other outward appearances which might be positive or negative with regard to the job.

### The Oral Interview

An applicant is rated on all of these items automatically on his first interview. If it is possible that he may successfully run this first gauntlet, the next ordeal is the oral interview. The problem here is to determine what actually happens in the mind of the employer when the applicant utters his first phrase or sentence. The effects that the voice, in this first sentence, have upon the employer are termed "conversational characteristics", and are thus described:

#### 1. Voice

Does it give a good or a bad impression as to tone and volume?

#### 2. Directness of Speech

Does he get to the point immediately?

#### 3. Courage

Does he look you straight in the eye, or do his eyes shift away to the floor or to other points?

#### 4. Use of English

#### 5. Impediments in Speech

#### 6. Ego

By the nature of his speech, does he show an overabundance of ego?

7. Gesticulation

Does he over-emphasize gesticulating?

8. Attentiveness

Does he appear to be the type that is willing to listen?

9. Politeness

Does his speech have the air of politeness?

The above rating characteristics were considered apart from those facts and traits which could be found only by actually examining the applicant on his completion of the first half of this second stage. If he is fortunate enough to get the second stage of the interview, the employment officer attempts to analyze him in terms of desirable characteristics which will fit him to the job in mind.

The committee agreed that these following traits or characteristics might be found by questioning, examining, or by some other means of inquisition. The procedure followed usually varies according to the thoroughness of the employment officer; but whether these facts are gathered formally or simply by mental notations does not lessen the importance of their weight and magnitude.



Table 12.- - DESIRABLE CHARACTERISTICS AND FACTS WHICH  
THE EMPLOYMENT OFFICER IS ATTEMPTING TO FIND IN THE  
ORAL INTERVIEW

1. Experience and education	21. Enthusiasm
2. Whether employed or not	22. Thoroughness
3. Number of previous jobs	23. Proper mental attitude
4. Capability	24. Loyalty
5. Ability to get along with others	25. Truthfulness
6. Hopes and ambitions	26. Patience
7. Courage	27. Resourcefulness
8. His hobbies	28. Imagination
9. Habits of intemperance	29. Courtesy
10. Habits of promptness	30. Power of observation
11. Use of leisure time	31. Ability to follow orders
12. Dependability	32. Types of associates
13. Financial condition	33. Tactfulness
14. Family background	34. Consideration for the rights of others
15. Initiative	35. Leadership qualities
16. Ability to assume responsibility	36. Ability to create con- fidence
17. Respect for authority	37. Aggressiveness
18. Self-confidence	38. Fortitude
19. Industriousness	39. Tolerance
20. Adaptability to the job	40. Legibility in writing

The committee agreed that the job of employment management had only just begun when the new employee was finally hired. There immediately follows the individual efficiency rating for the employee. They further stated that an individual worker is rated daily by his employer, who uses many points of evaluation. These points may be called employment characteristics or individual rating factors, and are thus presented:

1. Adaptability to the Job, or Employment Characteristics, such as
  - a. Ability to get along with people
  - b. Courtesy
  - c. Tact
  - d. Diplomacy
  - e. Due consideration for the rights of others

- f. Ability to create confidence
- 2. Ambition or Desire to Develop Mentally and Develop in Skills
- 3. Courage
- 4. Habits or Temperance
- 5. Initiative
- 6. Ability to Assume Responsibility
- 7. Respect for Authority
- 8. Fortitude, or
  - a. Self-reliance
  - b. Competency
  - c. Self-assurance
  - d. Self-confidence
  - e. Faith in job
- 9. Application, or
  - a. Industriousness
  - b. Aggressiveness
  - c. Progressiveness
  - d. Resourcefulness
- 10. Enthusiasm
- 11. Thoroughness - - Orderliness
- 12. Mental Attitudes, such as
  - a. Jealousy
  - b. Tolerance
  - c. Loyalty
- 13. Honesty
- 14. Patience and Sincerity
- 15. Ability to Carry Out Orders
- 16. Accuracy
- 17. Ability to Mind Own Business

No effort was made in this conference to set up any educational plan other than to present a great number of employee-employer problems and to analyze them for the purpose of finding the causes, and then set up remedial situations within industry. The list of characteristics under III was used, however, in making up a rating book (see Appendix) which was placed in the hands of employers for the purpose of gathering the information for this study.

Other work was done by this conference, such as setting up a list of de-rating characteristics and checking them against the employment characteristics under III to determine the validity of the letter as a success factor in employment.

#### DEVELOPING THE EMPLOYEE RATING BOOK

The material gathered from the previously described conference was not sufficient to develop the employee rating book (see Appendix). It was found that many employers, including the General Electric Company, the Westinghouse Electrical Manufacturing Company, Pacific Telephone and Telegraph Company, The Hall-Scott Motor Company, the Caterpillar Tractor Company, and a few more of the larger organizations in the Bay District had already established some types of employee rating cards which they used in rating the progress of their employees. Individual conferences were held with the

employment managers and with the managers and owners of the large companies of the Bay District to get their opinions and suggestions. Management heads of nine large organizations (see Appendix), who were independent of the previously referred to committee of nine with which the 27 conferences were held, were asked for advice on how to develop an employee rating sheet which could be used for research purposes in trying to find what employment characteristics were. These employers gave willingly any materials or data which were in use in their factories and made valuable suggestions for the construction of the rating book.

From the interviews with these men and the previous conferences, the following rules and guides were developed:

#### GUIDES FOR GATHERING EMPLOYMENT DATA

1. Employers are interested in any plan for employee improvement, if it is sound.
2. Any form which is to be used for employee rating research must be businesslike and complete.
3. Employers will not, as a rule, take time to fill in a stereotyped questionnaire.
4. Information of this sort must be acquired by individual contacts rather than by mail.
5. All contacts with employers should be made by previous appointment.
6. Confidential information, such as the nature of the material desired therein, can be obtained only to the extent that it be treated as confidential, with only the composite facts made public.

Acting on the information which had been gathered through the group conference procedure and individual employer contact, the employee rating book (see Appendix) was developed. The book was described in sections according to the tabulation. Each part of the book will be followed by a corresponding instruction book sheet. The four divisions of the book are as follows:

1. Case history
2. Personal characteristics
3. Reasons for present case status
4. Employers' comments and suggested corrective methods.

EMPLOYEE RATING BOOK PAGE

1. CASE NO.....

2. EMPLOYER NO.....

3. INDUSTRY (Type) Please check.

- a. Fabrication ( )
- b. Assembly ( )
- c. Manufacturing ( )
- d. Heavy Metals ( )
- e. Precision Tools ( )
- f. Technical Equip. ( )
- g. Transportation ( )
- h. Communication ( )
- i. Power ( )
- j. Construction ( )
- k. Service ( )
- l. .... ( )

4. EMPLOYMENT OFFICER

- a. Owner ( )
- b. Superintendent ( )
- c. Personnel Mgr. ( )
- d. Foreman ( )
- e. .... ( )
- f. .... ( )

7. CASE STATUS

DATE.....

- a. Employed ( )
- b. On relief ( )
- c. On work project ( )
- d. Retired ( )
- e. Deceased ( )
- f. Age ( )

5. CASE CLASSIFICATION

- Advanced ( )
- Non-Advanced ( )
- Separated ( )

8. EMPLOYEE-SELECTION METHOD

- a. Oral interview ( )  
only
- b. Trade Test, ( )  
written
- c. Trade Test, ( )  
applied
- d. Aptitude Test ( )
- e. Other tests ( )
- f. Link and Keeler ( )  
Test

6. JOB CLASSIFICATION

.....  
.....

## EMPLOYEE RATING BOOK PAGE

Page 2

## 9. SOURCE OF EMPLOYEE

- a. Other Employer ( )
- b. Trade Publication ( )
- c. Newspaper Advertisement ( )
- d. Private Employment Service ( )
- e. State Employment Service ( )
- f. Private Trade School ( )
- g. Public Trade School ( )
- h. High School Vocational Dept. ( )
- i. Recommendation of Company Official ( )
- j. Recommendation of Company Employee ( )
- k. Personal application ( )
- l. .... ( )

## 10. PREVIOUS EXPERIENCE

Apprenticeship

Trade ( ) Industrial Clerk ( )

- a. Served with prior employer ( )  
How long?..... ( )
- b. Served in your employ ( )  
How long?..... ( )
- c. None ( )

Intelligence

High ( ) Medium ( ) Low ( )

## 11. EDUCATION

Grade School:

1, 2, 3, 4, 5, 6, 7, 8

High School:

9, 10, 11, 12

Courses Elected:

Vocational ( ) Commercial ( )  
Pre-College ( ) General ( )

College:

1, 2, 3, 4

Degrees.....  
Majors.....  
When.....

## 11. EDUCATION

Trade School Course and Length of Attendance:

	Years	When
Auto.....		
Cabinet.....		
Electric.....		
Machine.....		
Radio.....		
Sheet Metal.....		
Welding.....		
Others.....		
None.....		

## I. CASE HISTORY

This part of the rating book is self-explanatory except for the following:

CASE NO.-----	ITEM 1 ---	PAGE 1 ---
EMPLOYER NO.---	ITEM 2 ---	PAGE 1 ---

Numbers, not names, were used here because of the confidential information obtained. It was found that the employers did not approve of having either their names or the name of the employee placed on this page.

Employment Officer. Item 4, Page 1, is for the purpose of determining who does the employing.

Case Classification. Item 5, Page 1, is for the purpose of indicating the type of employee being rated--"Advanced", meaning the type of employee who would be promoted and was considered successful; "Non-Advanced", meaning the standstill or the specialist; "Separated",



meaning the one who was discharged.

Job Classification. Item 6, Page 1, is for the pay roll job of the employee being rated.

Employee-Selection Method. Item 8, Page 1, is for the purpose of determining just how employees are selected.

Source of Employee. Item 9, Page 2, is for the purpose of determining to what extent employers are giving preference to students who are graduates from vocational schools. It answers in part Question one of this study. It is also for the purpose of determining what credit is given to students from vocational schools, and answers Question two of this study.

Previous Experience. Item 10, Page 2, is for the purpose of determining the average years of experience which the employee has. This information is not directly pertinent to the questions asked in this study, but it would be considered allied information.

Education. Item 11, Page 2, is for the purpose of determining to what extent vocational schools are contributing to the success of employees. It partially answers Question

INSTRUCTIONS FOR FILLING OUT  
DATE SHEETS FOR EMPLOYEE STUDY

INSTRUCTION - PAGE 1

EMPLOYER NO. - Leave blank.

INDUSTRY-The employer should check here the type of work engaged in.

EMPLOYMENT OFFICER - Who is the employment officer?

CASE CLASSIFICATION - What is the present status of the case? Has he been advanced? Is he still in the same position? Have his services been discontinued?

PRESENT JOB CLASSIFICATION- What is the employee doing now if he is still in your employ?

CASE STATUS - What is the present status of the employee, if you know? Also check age as of date according to your records.

EMPLOYEE SELECTION METHOD - This is an attempt to attain your method of selection.

INSTRUCTIONS - PAGE 2

SOURCE OF EMPLOYEE - How did you get the employee in the first place?

INDICATE NUMBER OF PREVIOUS EMPLOYERS - Check as many of these items as you can with regard to the employee, his apprenticeship, intelligence, education, etc.

II. PERSONAL CHARACTERISTICS

This section of the book is for the purpose of making a complete breakdown analysis of the employee and is thus presented:

Rating book, Page 3

PERSONAL CHARACTERISTICS

Please check one or more in each numbered item:

12. Personality  
 Aggressive ( ) Dynamic ( ) Congenial ( )  
 Phlegmatic ( ) Negative ( )

14. Cooperation  
 Unsparing ( ) Satisfactory ( ) Indifferent ( )  
 Poor ( )
15. Ambition  
 Strong ( ) Fair ( ) Weak ( ) Lacking ( )  
 Over-developed ( )
16. Initiative  
 Strong ( ) Fair ( ) Weak ( ) Lacking ( )  
 Over ( ) Self-starting ( )
17. Punctuality - Job Station  
 Yes ( ) No ( )
18. Application  
 Energetic ( ) Steady ( ) Flighty ( ) Lazy ( )
20. Progress  
 Superior ( ) Average ( ) Slow ( ) None ( )
21. Courteous  
 Yes ( ) No ( )

---

Rating book, Page 4

Personal Characteristics continued:

22. Energetic  
 Yes ( ) No ( )
23. Tactful  
 Yes ( ) No ( )
24. Leadership Qualities  
 Determined ( ) Decisive ( ) Resolute ( )  
 Persistent ( ) Organizing Ability ( )
26. Stability, Job  
 Constant ( ) Variable ( ) Lacking ( )  
 Impulsive ( )
27. Capability on Job  
 Has ( ) Has not ( )
28. Adaptability to Job  
 Yes ( ) No ( )
29. Adaptability to Job Environment  
 Yes ( ) No ( )
30. Thoroughness on Job  
 Excellent ( ) Good ( ) Slipshod ( ) Neglectful ( )

31. Flexibility - Easily adapted to new situations  
Yes ( ) No ( )

Rating book, page 5

Personal Characteristics continued:

32. Creative Ability  
Of value to industry ( ) Employees ( )  
Consumer ( )
33. Occupational Versatility  
Has ( ) Has not ( )
34. Speed - Production  
Rapid ( ) Moderate ( ) Sluggish ( )
36. Accuracy on Job  
Yes ( ) No ( )
38. Reliability  
Exceptional ( ) Responsible ( ) Irregular ( )  
Unreliable ( )
40. Judgment, Job  
Superior ( ) Reliable ( ) Questionable ( )  
Defective ( )
41. Judgment, Social  
Superior ( ) Dependable ( ) Poor ( )
42. Conduct, Job  
Irreproachable ( ) Honorable ( ) Troublesome ( )  
Mind own business ( ) Dishonorable ( )
43. Conduct, Social  
Irreproachable ( ) Honorable ( ) Troublesome ( )  
Dishonorable ( )

Rating book, Page 6

Personal Characteristics continued:

44. Disposition  
Cheery ( ) Even ( ) Disagreeable ( ) Quarrelsome ( )  
Patient ( ) Flighty ( ) Moody ( )
45. Thrift - (Employer's materials and equipment)  
Conservative ( ) Wasteful ( )
46. Product, Quality  
High-grade ( ) Marketable ( ) Passable ( )  
Discard ( )

48. Production, Quantity  
High ( ) Medium ( ) Low ( )
50. Job Interest  
Enthusiastic ( ) Average ( ) Low ( ) None ( )  
Clock-watcher ( )
53. Student while employed  
Night School ( ) Correspondence School ( )  
Seeks new ideas ( )
54. Family Relations  
Excellent ( ) Satisfactory ( ) Indifferent ( )  
Neglectful ( ) Married ( ) Single ( ) Divorced ( )  
Widower ( )
55. Financial  
Sound ( ) Insecure ( ) Extravagant ( )

---

Rating book, Page 7

Personal Characteristics continued:

56. Physical  
Excellent ( ) Good ( ) Fair ( ) Poor ( )
58. Courage  
Extrovert ( ) Introvert ( ) Stamina - High ( )  
Low ( )
59. Morale  
Excellent ( ) Fair ( ) Poor ( )
60. Honesty - Your Estimate Yes    No  
a. Loyalty to firm.....  
b. Truthful.....  
c. Falsify Company's records.....  
d. Can be trusted with Company's  
property-.....
62. Promotional Material  
Yes ( ) No ( )
65. Appreciation  
Sense of Yes ( ) No ( )
67. Job Orderliness  
Yes ( ) No ( )
71. Neatness, Personal                      72. Observing  
Yes ( ) No ( )                              Yes ( ) No ( )

For the purpose of simplifying this section of the Employee Rating Book the following instruction sheets were provided:

---

INSTRUCTIONS - PAGE 3

12. PERSONAL CHARACTERISTICS - How does he impress you personally?
14. COOPERATION - How does he seem to get along with others? Is he a helper, etc.?
15. AMBITION - Excess ambition may be the cause of one losing his job. He may have ambitions over his head for someone else's job, or he may have the required amount of ambition for the type of job you want.
16. INITIATIVE - Having over-initiative may cost one his job. It is true he may be a self-starter, but he may forget to turn off the power and overdo the job or do the wrong thing.
17. PUNCTUALITY - Is he regularly on the job and ready to work at the stated time as per the employer-employee agreement?
18. APPLICATION - Does he give the appearance that he is doing the job because he is interested or is he just looking for Saturday night and a paycheck?
20. PROGRESS - Progress has to do with his industrial achievement and other personal characteristics which might go in a summary as indicated.
21. COURTEOUS - Even in a job, courtesy may be a factor that causes you to respect an employee above all others.

INSTRUCTIONS - PAGE 4

22. ENERGETIC - Refers to application and is really a double check.
23. TACTFUL - Does he say the wrong thing at the wrong time, or does he use good judgment?
24. LEADERSHIP QUALITIES - Does he possess the type of leadership qualities which will make him possible leadership material for your factory?
26. STABILITY \* JOB - Does he have the "stick - to-it-ness" and dependability which a job requires?
27. CAPABILITY ON JOB - Can he "cut the buck"?

INSTRUCTIONS - PAGE 4 (continued)

- 28. ADAPTABILITY TO JOB - He may be a hard worker, but he may be a round peg in a square hole.
- 29. ADAPTABILITY TO JOB ENVIRONMENT - He may be able to work in a shop with a polished floor and wear a white collar, but how does he fit your shop?
- 30. THOROUGHNESS ON JOB - Are his jobs always complete according to your specifications?
- 31. FLEXIBILITY - Can you move him from one station to the other with ease?

INSTRUCTIONS - PAGE 5

- 32. CREATIVE ABILITY - Does he see beyond the drawing on the blueprint?
- 33. OCCUPATIONAL VERSATILITY - Easy to turn from one occupation to another?
- 34. SPEED - PRODUCTION - Self-explanatory.
- 36. ACCURACY ON JOB - Can he be depended upon for the tolerances allowed?
- 38. RELIABILITY - This means the same as dependability. Will he always be on the job when you want him?
- 40. JOB JUDGMENT - Can you depend upon his judgment for what may be determined a good job?
- 41. SOCIAL JUDGMENT - How about his companions and his activities after working hours?
- 42. JOB CONDUCT - Self explanatory.
- 43. SOCIAL CONDUCT - Ability to get along with other employees during or after working hours.

INSTRUCTIONS - PAGE 6

- 44. DISPOSITION - Self-explanatory.
- 45. THRIFT - Does he take an interest in your equipment and materials?
- 46. PRODUCT, QUALITY - Self-explanatory.
- 48. PRODUCTION, QUANTITY - What is his percentage of production as against your expectations?
- 50. JOB INTEREST - This refers to his job and employment satisfaction.
- 53. STUDENT WHILE EMPLOYED - Does he do things that lead you to believe he is a real student?
- 54. FAMILY RELATIONS - Some of these may be the cause of his downfall.
- 55. FINANCIAL - What is his financial status to your knowledge?

INSTRUCTIONS - PAGE 7

- 56. PHYSICAL - Self-explanatory.
- 58. COURAGE - Self-explanatory.
- 59. MORALE - Your general impression while he is on the job and at home.
- 60. HONESTY - YOUR ESTIMATE - As honesty is an indefinite quantity, let us consider the employee on the basis of his factory responsibility while under your employment.
- 62. PROMOTIONAL MATERIAL - Is he or is he not?
- 65. APPRECIATION - Does he appreciate what you or others do for him, and does he continue to show appreciation?
- 67. JOB ORDERLINESS - Does he clean up his bench and machine? Does he leave the stock in good condition?
- 71. NEATNESS, PERSONAL - Self-explanatory.
- 72. OBSERVING - Would he notice corrections to be made on a blueprint before stock was actually used on job?

III. REASONS FOR CASE STATUS

As personal characteristics were not considered sufficient in completely analyzing employees, an attempt was made in this section of the rating book to find what the employer actually thought of the person being rated. The following pages were added to the rating book for this purpose.



## Rating book, Page 8

## Reasons for Case Status

- |                 |   |     |     |                       |         |
|-----------------|---|-----|-----|-----------------------|---------|
|                 |   | 63. | ( ) | Business ( )          | Lack of |
|                 |   |     | ( ) | Increase              |         |
|                 |   | 64. | ( ) | Opportunity ( )       | Lack of |
|                 |   | 66. | ( ) | Training ( )          | Lack of |
|                 |   | 68. | ( ) | Achievement ( )       | Lack of |
|                 |   | 69. | ( ) | Skill ( )             | Lack of |
|                 |   | 70. | ( ) | Education ( )         | Lack of |
|                 |   | 74. | ( ) | Job created           |         |
| Separation      | ) | 76. | ( ) | Coercion              |         |
| Non-Advancement | ) | 78. | ( ) | Resourcefulness       |         |
| Advancement     | ) |     | ( ) | Lack of               |         |
|                 |   | 79. | ( ) | Over-confidence       |         |
|                 |   | 80. | ( ) | Misfit                |         |
|                 |   | 81. | ( ) | Hobbies overdeveloped |         |
|                 |   | 82. | ( ) | Agitator              |         |
|                 |   | 84. | ( ) | Personal difference   |         |
|                 |   | 85. | ( ) | Outside Interest      |         |
|                 |   |     |     | Overdeveloped         |         |
|                 |   | 86. | ( ) | Indifference          |         |
|                 |   | 87. | ( ) | Ego Overdeveloped     |         |
|                 |   | 88. | ( ) | Slipshod              |         |
|                 |   | 90. | ( ) | Sluggish              |         |
|                 |   | 92. | ( ) | Carelessness -        |         |
|                 |   |     |     | absentminded          |         |
|                 |   | 93. | ( ) | Carelessness -        |         |
|                 |   |     |     | mindful               |         |

## Rating book, Page 9

## Reasons for Case Status (continued)

		94.	( )	Slowness - general
		96.	( )	Insubordination
		98.	( )	Absenteeism
		100.	( )	Trouble-maker
		102.	( )	Drinking
		104.	( )	Violation of rules
		106.	( )	Misconduct
		108.	( )	Dishonesty
		110.	( )	Loafing
Separation	)	111.	( )	Dissatisfaction - job
Non-Advancement	)	112.	( )	Dissatisfaction -
Advancement	)			environment
		113.	( )	Tolerance ( ) Lack of
		114.	( )	Lateness, habitual
		116.	( )	Ability to follow in-
				struction ( ) Lack of
		118.	( )	.....
		120.	( )	.....
		122.	( )	.....
		124.	( )	.....

While the items on Page 8 and 9 of the booklet were considered quite self-explanatory, the following section of the instruction book which is devoted to these two pages is hereby added:

INSTRUCTIONS - PAGES 8 and 9

PERSONAL PROGRESS HISTORY:

Using the present status of the case as a guide, check those items you feel have contributed to his separation - non-advancement - or advancement.

IV. EMPLOYER COMMENTS AND SUGGESTED CORRECTIVE MEASURES

By the time the employer has reached this section of the book, it is considered that he has made a very thorough analysis of the employee and, as a result of this diagnosis, he should be able to contribute certain information to this study which would be considered answers to Question 5. Therefore, pages 10 and 11 of this booklet were hereto presented:

Rating book, Page 10  
Employer Comments and Suggested Corrective Measures

SEPARATED ( ) NON-ADVANCEMENT ( )

Employment Officer:

Your comments and suggestive corrective measures relative to this case are of great value in the final analysis and summary, viz:

- 1. Improved method of training in high school vocational departments in such subjects as: Mathematics ( ) Mechanical Drawing ( ) Science ( ) English ( ) ( ) .....( ).....( ) .....( )
- 2. Improved method of general training in grade and secondary schools.
- 3. More intense vocational and social counseling in grade and secondary schools.
- 4. An improved system of vocational and social counseling maintained within the plant.
- 5. Closer cooperation between school and home.
- 6. Closer cooperation between employer and home.
- 7. Closer cooperation between employer and school.

8. More influential individuals taking a personal interest in him.
9. Required to continue education while employed.
10. More selective employment methods.
11. Improved method of vocational student selection.
12. Consulted physician.
13. Consulted psychiatrist.
14. Other reasons
15. Comments:

ADVANCEMENT ( )

Your evaluation of this employee, if not in the trades, who has made outstanding progress:

---

For the purpose of giving the employer more definite interpretation of pages 10 and 11 and to impress upon him that his efforts have been appreciated, the following section from the instruction book was presented:

---

INSTRUCTIONS - PAGES 10 and 11

These pages are for the assistance of vocational departments where training is being carried on. Will you please check this very carefully, as your opinion is vital in the setting up of vocational courses.

"THANK YOU"

---

Compiling the distribution  
list of employers

If the data to be gathered were to be of any great value, the employers who were selected had to have certain qualifications, such as:

1. Their past activities betrayed an interest in personnel training
2. They were rated as outstanding employers in the community
3. By their cooperation in the past with the vocational department of the City of Alameda, they had shown an interest in vocational training

A list of 9 employers (see Appendix), therefore, was compiled on the above basis and the job of collecting data was begun.

Gathering the data

The maximum number of books given to any one employer was nine, except in the cases of the Associated Oil Company, the General Motors Company, and one or two others. Because these were large concerns employing several thousand people, it was thought best to give them a few more and let them divide the booklets among the various department heads. Each employer was instructed to divide the number of books by three and to fill in an equal number for "Advanced," "Non-Advanced," and "Separated." If the firm was comparatively small, only three books were left.

It was found quite early in the process of

gathering data that the most dependable way in which to have the rating books filled out correctly was to help the employer fill out the first three, that is, one of each category. If the employment manager had been given more than three copies, he was given an instruction book which was to be used as a reference, should he need it. The following table shows the results in terms of employer response to the study.

Table 13 -- Employer Participation in Filling Out and Returning Employer Rating Books.

No. booklets		No. Employers	
345	Delivered to	50	
300	Returned from	45	

Difficulties in securing information

There were no difficulties, other than the time element. All contacts and visits were made in accordance with previous arrangements for scheduled appointments. In every case the qualified person was directed by the management to fill in the rating book. In many cases, the general manager of the firm personally aided in the work of rating his employees.

In most cases, when the books were completed, they were called for in the same manner in which they were distributed, namely, by appointment. In a few cases, however, the employers mailed them in when their

job of employee rating was completed. In five cases only were the booklets returned personally by the employer.

## RESULTS AND FINDINGS

### Compiling and interpreting data

When the rating books were returned after having been properly filled out, their contents were compiled into a number of tables and charts which will be considered in the same order as will be found in the rating book (see Appendix). The actual numbers of cases of employees studied were:

1. One hundred "advanced" cases
2. One hundred "non-advanced" employees
3. One hundred "separated"

It will be observed throughout this chapter that the totals of the columns under the three headings of "advanced," "non-advanced," and "separated," will not always sum up to an even one hundred. This is because of employer errors in filling out the record books, which were compiled exactly as turned in.

### Case history of rated employees

This section of the research has to do with the case history which is essential for a better understanding of the group which is being rated. Table 14, Page 3 gives the results of the findings. It will be noted that the average age of the "advanced" type is 33.5 years, the "non-advanced" 36 years and the



"separated" type of employees 30 years. This gives an average age of 33.5 years. Item two of the table indicates that the average time during which the "advanced" employee has worked for the employer is 7.9 years, the "non-advanced" 7 years, and the "separated" 2.9 years. In each one of the three types of employees, there is a comparatively large number of industrial clerks. These employees were engaged in tool-room work and other types of clerical work which are usually prevalent around every factory. The boys who fill these jobs at the present time are being supplied by the high schools and from vocational departments of high schools.

One other item of importance is that of intelligence. By "high" intelligence is intended to indicate that impression an employee gives the employer; likewise, with the "medium" and "low". There was no attempt made to give intelligence tests. In Item Eight of this table, it will be seen that eight-six of the "advanced" type of employees were of high intelligence while only twenty-eight of the "non-advanced" and twenty-two of the "separated" type of employees were classed as "high" intelligence. It should also be noted in Item ten that only seven out of the entire three hundred had ratings of "low" intelligence.

Table 14 -- Case History of Rated Employees  
 (as compiled from 100 advanced, 100 non-advanced, and  
 100 separated)

	ITEMS OF INFORMATION	Ad- vanced	Non-Ad vanced	Separ- ated
1	Average age	33.5 yrs	36	30
2	Average duration of employment	7.9	7	2.9
3	Number of industrial clerks	24	24	22
4	Number of mechanics, helpers and apprentices	76	76	78
5	Number of persons rated now employed (Note: se- parated employed elsewhere	98	100	90
6	Number of persons rated now on relief	---	1	10
7	Number of persons rated now deceased	1	---	---
8	Number of persons rated as "high" intelligence	86	28	22
9	Number of persons rated as "medium" intelligence	14	68	75
10	Number of persons rated as "low" intelligence	---	4	3

Employment officers

As indicated in Table No. 15, Page No. 4, the results of the study will show that the "owner" rates 39 per cent, or the highest efficiency as an employment officer. Ranking next to the "owner" in efficiency as an employment officer is the "personnel manager" with a rating of 36 per cent. The "foreman" ranks third with a rating of 35 per cent while the "superintendent" ranks fourth with 30 per cent in his efficiency in selecting employees. It will be noted, however, that the personnel manager hired 35 of the advanced cases while the superintendent hired 31 of the advanced. The owner hired 27 and the foreman only hired 6. It will also be noted in the column under non-advanced that the superintendent hired 41 or the greatest number of any of the four employers. Likewise, under separated cases, the superintendent hired 35, which was greater than any other of the four.

Table No. 15 -- Employment Officers  
(as compiled from 100 advanced, 100 non-advanced, and 100 separated cases)

Employing Officer	Adv. cases hired	Non-adv. hired	Sep. Cases hired	Effic. in Employ
Personnel Manager--	35	31	29	36
Superintendent-----	31	41	35	30
Owner-----	27	23	20	39
Foreman-----	6	5	6	35
Total -----	99	100	90	

Selection methods or extent to which various devices are used in employee selections

According to the data compiled, the "oral interview" ranks first as a selection device, there having been 95 advanced and 90 non-advanced and 91 separated cases hired by this method. "Trade tests applied" ranked second with 17 advanced, 20 non-advanced, and 14 separated cases while "trade tests written" ranked third with 9 advanced, 9 non-advanced, and 5 separated cases. "Aptitude tests" ranked fourth and lowest with 9 advanced, 10 non-advanced, and 2 separated cases. In many of the cases both oral interview and tests were given; this explains why the columns total more than one hundred cases.

Table No. 16 -- Selection Methods or Extent to Which Various Devices are used in Employee Selection  
(as compiled from 100 advanced, 100 non-advanced, and 100 separated cases)

Methods of Selection	Adv.	Non-adv.	Sep.
Oral interview only---	95	90	91
Trade tests, written--	9	9	5
Trade tests, applied--	17	20	14
Aptitude tests-----	9	10	2
Total-----	130	129	112

Source from which employees are chosen and extent to which the employer agencies function

One hundred and seventy out of a total of three hundred employees were secured through personal application, forty-five employees from another employer, and thirty-nine were secured through the recommendations of company employees. The high school vocational department supplied only twenty-seven employees out of a total of three hundred, and out of that twenty-seven, it will be noted that ten of them were of the "separated" type.

"Company officials" ranked fifth with twenty-six out of three hundred employees. According to this study the vocational department of the high school actually furnishes only eight and one-third employees out of every one hundred which are inducted into industry.

Table No. 17 -- Source from which Employees are chosen and Extent to which the Employment Agencies Function (as compiled from 100 advanced, 100 non-advanced, and 100 separated cases)

	Source	Adv.	Non-Adv.	Sep.	Total
1	Personal application	57	67	46	170
2	Other employer	10	20	15	45
3	Recommendation of company employee	12	12	15	39
4	High school vocational department	14	3	10	27
5	Recommendation of company official	10	10	5	25
6	Public trade school	3	0	5	8
7	Newspaper advertisement	0	0	2	2
8	Trade publication	0	1	1	2
9	State Employment service	0	0	1	1
10	Private trade school	0	0	0	0
11	Private Employment Service	0	0	0	0

Employee selection as to educational sources

Table No. 18, Page No. 7, indicates that one hundred and fifty-six of the three hundred employees had attended high school while seventy-three had terminated their schooling at the eight grade in the grammar school. Fifty-nine had had vocational training; the high school furnished sixty of the advanced cases, forty-three of the non-advanced and fifty-three separated cases. The grade school furnished twenty-eight advanced cases, twenty-nine non-advanced and twenty-four separated, while the vocational department furnished twenty-two advanced, thirteen non-advanced, and twenty-four separated cases.

Table 18 -- Employee Selection as to Educational Sources  
 (as compiled from 100 advanced, 100 non-advanced, and  
 100 separated employees)

Training Institutions	No. of Adv. cases	No. of Non-Adv. Cases	No. of Sep. cases	Total
1 High School -12th Grade	68	56	57	181
2 Grade School -8th Grade	96	92	94	282
3 Vocational department of High School	22	13	24	59
Total-----	186	161	175	522

Further information will be found in Table No. 19, Page No. 8 which is a composite of all the cases studied. The purpose of this table is to indicate exactly what schooling advanced, non-advance, and separated employees have had-whether or not there had been an abundance from the vocational department or the general course in the high school. The results have just been explained in the condensed Table No. 18, Page 7. The other items on the table are self-explanatory and are placed in the table for purely information purposes only.

Table No. 19 -- Educational Levels of Employees Studied  
(as compiled from 100 advanced, 100 non-advanced, and  
100 separated cases)

Educational Levels	Adv. Per Cent	Non-Adv. Per Cent	Sep. Per Cent	Ave. school attainment Percent of 300
1 Grade school-8th yr.	96	92	94	282
2 High school-12th yr.	68	56	57	181
3 Majors in high school vocational dept.	22	13	24	59
4 Trade school vocational auto shop	5	6	4	15
5 Trade school cabinet shop	0	0	2	2
6 Trade school electric shop	5	3	4	12
7 Trade school machine shop	13	6	13	32
8 Trade school radio shop	3	0	0	3
9 Major in high school com- mercial department	11	10	5	26
10 Major in pre-college high school	7	0	3	10
11 Major in general course high school	17	21	25	63
12 College one year only	10	5	5	20
13 College two years only	10	4	4	18
14 College three years only	7	3	4	14
15 College four years only	7	3	3	13

Personal characteristics and their values in relation to employee advancement

The first nine items: "adaptability to job," "adaptability to environment," "application," "progress," "punctuality," "production speed," "conduct--job," "conduct--social," "thrift (employer)," all rated one hundred per cent. "Personality," "cooperation," "capability," "thoroughness," "accuracy," "reliability," "judgment--job," "judgment--social," "job interest," "honesty," "neatness-personal," rated ninety-nine percent. "Initiative," "versatility," "physical (health)," and "promotional material" rated ninety-seven per cent; "appreciation" rated ninety-four per cent; "family relations," "financially sound" and "morale" rated ninety-three per cent; "tactful" "leadership" and "flexibility" rated ninety-two per cent; "courage" eighty-seven per cent; "creative ability" eight-five per cent and "being a student while employed" rated eight-one per cent.

This would indicate that the employer places a very high premium on the "advanced" type of employee.



Table 20. -- PERSONAL CHARACTERISTICS AND THEIR VALUES  
 IN RELATION TO EMPLOYEE ADVANCEMENT  
 (as compiled from studies of 100 Advanced employees)

	Personal Characteristics	Rating per cent
1	Adaptability to job	100
2	Adaptability to environment	100
3	Application	100
4	Progress	100
5	Punctuality	100
6	Production speed	100
7	Conduct--job	100
8	Conduct--social	100
9	Thrift (employer)	100
10	Personality	99
11	Cooperation	99
12	Capability	99
13	Thoroughness	99
14	Accuracy	99
15	Reliability	99
16	Judgment--job	99
17	Judgment--social	99
18	Job interest	99
19	Honesty	99
20	Neatness--personal	99
21	Ambition	98
22	Energetic	98
23	Production quality	98
24	Job orderliness	98
25	Observing	98
26	Initiative	97
27	Versatility	97
28	Physical (health)	97
29	Promotional material	97
30	Courteousness	95
31	Stability	95
32	Disposition	95
33	Appreciation, sense of,	94
34	Family relations, good	93
35	Financially sound	93
36	Morale	93
37	Tactful	92
38	Leadership	92
39	Flexibility	92
40	Courage	87
41	Creative Ability	85
42	Student while employed	81

Personal characteristics and their values in relation to employee non-advancement

The personal characteristics in Table 21 are arranged in the order of their importance and are self-explanatory. It will be noted, however, that the items carrying the highest percentage are: "courteousness," "production speed," "conduct--social," "conduct--job," and "thoroughness." The other personal characteristics are self-explanatory and are placed in the order of their importance according to the ratings of the employer. Attention is also called to the items in which this particular type of employee rates the lowest, namely, creative ability, student while employed, and leadership.

Table 21. -- PERSONAL CHARACTERISTICS AND THEIR VALUES  
 IN RELATION TO EMPLOYEE NON-ADVANCEMENT  
 (as compiled from studies of 100 Non-advanced employees)

	Personal Characteristics	Rating per cent
1	Courteousness	91
2	Production speed	89
3	Conduct--social	89
4	Conduct--job	89
5	Thoroughness	88
6	Thrift (employer)	87
7	Job orderliness	86
8	Physical (health)	86
9	Family relations	86
10	Job interest	85
11	Neatness--personal	84
12	Punctuality	82
13	Capability	82
14	Adaptability to job	80
15	Reliability	80
16	Honesty	80
17	Production--quality	80
18	Accuracy	79
19	Application	78
20	Adaptability to environment	77
21	Judgment--social	77
22	Cooperation	76
23	Disposition	76
24	Personality	74
25	Job judgment	67
26	Financially sound	66
27	Tactful	65
28	Ambition	64
29	Energetic	64
30	Stability	64
31	Initiative	61
32	Observing	58
33	Courage	52
34	Versatility	49
35	Flexibility	47
36	Appreciation, sense of,	43
37	Progress	42
38	Morale	40
39	Creative ability	37
40	Leadership	31
41	Student while employed	27
42	Promotional material	04

Personal characteristics and their  
value in relation to employee  
separation

In Table 22 it was found that the outstanding characteristics even among the separated type of employees are: courteousness, punctuality, good physical health, neatness--personal, production--speed, good family relations, personality, and job conduct. The items which they were extremely low in were promotional material, leadership, being a student while employed, morale, capability, stability, appreciation, sense of, versatility, reliability, and job judgment. The other items are self-explanatory and are placed in the order of their importance according to the rating of their employers.

Table 22. -- PERSONAL CHARACTERISTICS AND THEIR VALUES  
 IN RELATION TO EMPLOYEE SEPARATION  
 (as compiled from studies of 100 Separation employees)

	Personal Characteristics	Rating per cent
1	Courteousness	88
2	Punctuality	86
3	Physical (health)	85
4	Neatness--personal	79
5	Production speed	79
6	Family relations	74
7	Personality	70
8	Conduct--job	69
9	Conduct--social	67
10	Job orderliness	64
11	Thrift (employer)	62
12	Cooperation	60
13	Disposition	60
14	Job interest	60
15	Honesty	58
16	Judgment--social	57
17	Thoroughness	57
18	Accuracy	55
19	Ambition	55
20	Tactful	54
21	Financially sound	52
22	Application	51
23	Capability	51
24	Energetic	50
25	Observing	49
26	Courage	48
27	Initiative	48
28	Progress	48
29	Adaptability to job	43
30	Accuracy	40
31	Adaptability to environment	40
32	Flexibility	40
33	Judgment--job	40
34	Reliability	40
35	Versatility	38
36	Appreciation, sense of,	35
37	Stability	30
38	Creative ability	25
39	Morale	25
40	Student while employed	23
41	Leadership	21
42	Promotional material	10

Personal characteristics and their  
values in relation to employee  
limitations or minimum advancement  
probability

An attempt was made in Table 23 of the study to ascertain what would be the minimum ratings which one could have in personal characteristics and still have a slight but possible chance of advancement. In the column under "ratings per cent" will be found the minimum ratings which one could have according to the findings and still be considered promotional material. This was found by taking the average percentages from the advanced, the non-advanced, and separated cases. The items were placed on the table in the order of their importance.

Table 23. -- PERSONAL CHARACTERISTICS AND THEIR VALUES  
 IN RELATION TO EMPLOYER LIMITATIONS OF MINIMUM  
 ADVANCEMENT PROBABILITY  
 (as compiled from 100 advanced, 100 non-advanced, and  
 100 separated cases)

	Personal Characteristics	Rating per cent
1	Courteousness	91
2	Physical (health)	89
3	Production speed	89
4	Punctuality	89
5	Neatness--personal	87
6	Conduct--job	86
7	Conduct--social	85
8	Family relations, good	84
9	Thrift (employer)	83
10	Job orderliness	82
11	Job interest	81
12	Personality	81
13	Thoroughness	81
14	Honesty	79
15	Cooperation	78
16	Disposition	77
17	Application	76
18	Production quality	76
19	Accuracy	74
20	Adaptability to job	74
21	Capability	74
22	Judgment--social	74
23	Reliability	73
24	Adaptability to environment	72
25	Ambition	72
26	Energetic	71
27	Financially sound	70
28	Tactful	70
29	Initiative	68
30	Judgment--job	68
31	Observing	68
32	Progress	63
33	Stability	63
34	Courage	62
35	Versatility	61
36	Flexibility	59
37	Appreciation, sense of,	57
38	Morale	52
39	Creative ability	49
40	Leadership	47
41	Student while employed	43
42	Promotional material	37

Ratings of employees against  
forty-two personal character-  
istics

In Table 24 the results of the rating books are compiled in the same order that they appear in the book and no attempt is made here to set the items up in the order of their importance. This table is to be used as a reference for the preceding tables on personal characteristics and it will be found that the three columns under advanced, non-advanced, and separated are reproduced therein.



Table 24. -- RATINGS OF EMPLOYEES AGAINST FORTY-TWO  
PERSONAL CHARACTERISTICS  
(as compiled from 100 advanced, 100 non-advanced, and  
100 separated cases)

No.	Personal Characteristics	Adv. Per Cent	Non-Adv. Per Cent	Sep. Per Cent
1	Personality	99	74	70
2	Cooperation	99	76	60
3	Ambition	98	64	55
4	Initiative	97	61	48
5	Punctuality	100	82	86
6	Application	100	78	51
7	Progress	100	42	48
8	Courteous	95	91	88
9	Energetic	98	64	50
10	Tactful	92	65	54
11	Leadership	92	31	20
12	Stability	95	64	30
13	Capability	99	82	51
14	Adaptability to job	100	80	43
15	Adaptability to environment	100	77	40
16	Thoroughness	99	88	57
17	Flexibility	92	47	40
18	Creative Ability	85	37	25
19	Versatility	97	49	38
20	Production--speed	100	89	79
21	Production-----quality	98	80	51
22	Accuracy	99	79	55
23	Reliability	99	80	40
24	Judgment--Job	99	67	40
25	Judgment--Social	99	77	67
26	Conduct--Job	100	89	69
27	Conduct--Social	100	89	67
28	Disposition	95	76	60
29	Thrift	100	87	62
30	Job Interest	99	85	60
31	Student on Job	81	27	23
32	Family Relations	93	86	74
33	Financial	93	66	52
34	Physical	99	86	85
35	Courage	87	52	48
36	Morale	93	40	25
37	Honesty	99	80	58
38	Promotional Material	97	4	10
39	Sense of Appreciation	94	43	35
40	Orderliness in Job	98	86	64
41	Personal Neatness	99	84	79
42	Observing	98	58	49

Rating employees against employment progress factors to find probable causes for advancement

In Table 25 ability to follow instructions seemed to be the most important progress factor which is followed by skill, training, achievement, resourcefulness, education, and tolerance.

Table 25. -- RATING EMPLOYEES AGAINST EMPLOYMENT PROGRESS FACTORS TO FIND PROBABLE CAUSES FOR ADVANCEMENT (as computed from 100 cases of "advanced" employees)

Order of Importance	Job Progress Factors	Percentage
1	Ability to follow instructions	77
2	Skill	69
3	Training	66
4	Achievement	65
5	Resourcefulness	48
6	Education	47
7	Tolerance	38

Rating Employees Against Employment Progress Factors to Find Probable Cause for Non-Advancement

Assuming that anything below a grade of 80 would be cause for non-advancement, it is readily seen from Table 26 that an employee might have a great many faults and still be able to remain on the payroll so long as the error in these faults was not noticeably high. For example, it will be seen that even with the "outside interests overdeveloped"--Item 18--to the extent of 10 per cent negative, he would still have a

payroll job worth 90 per cent. But if in speed he should drop below 61 percent, he would be apt to be considered even too inefficient to remain as a non-advanced type. His education may be as low as 64 per cent and his skill as low as 70 per cent and still he may be a valuable man to industry in a specialist's job or some position above which there is no advancement.

Table 26. -- RATING EMPLOYEES AGAINST EMPLOYMENT PROGRESS FACTORS TO FIND PROBABLE CAUSE FOR NON-ADVANCEMENT (as computed from 100 cases of non-advanced employees)

Order of Importance	Progress Factors	Negative Percent-Age	Payroll worth Positive
1	Slowness-general	39	61
2	Achievement	36	64
3	Education	36	64
4	Resourcefulness	34	66
5	Training	31	69
6	Ability to follow instructions	30	70
7	Skill	30	70
8	Indifference	20	80
9	Tolerance	19	81
10	Misfit	18	82
11	Carelessness--Absent-minded	16	84
12	Misconduct	14	86
13	Drinking	13	87
14	Ego Overdeveloped	13	87
15	Personal differences	13	87
16	Insubordination	11	89
17	Dissatisfaction--job	10	90
18	Outside interests overdeveloped	10	90
19	Loafing	9	91
20	Dissatisfaction--environment	8	92
21	Slipshod	8	92
22	Over-confidence	7	93
23	Sluggish	7	93
24	Trouble-maker	7	93
25	Violation of rules	7	93
26	Absenteeism	6	94
27	Carelessness--mindful	6	94
28	Agitator	5	95
29	Dishonesty	5	95
30	Lateness--habitual	3	97
31	Coercion	2	98
32	Hobbies overdeveloped	0	100

Rating Employees Against Employ-  
ment Progress Factors to Find  
Probable Causes for Separation

Assuming that any rating lower than 80 per cent would be cause for discharge, then, according to Table 27, the most common cause for separation would be "misfit" inasmuch as the best that a misfit could get would be 67 per cent or 33 per cent negative. Resourcefulness stands next important with a rating of 74 per cent, indifference 75 per cent, training 74 per cent, achievement 79 per cent, skill 79 per cent, slipshod 79 per cent, ability to follow instructions and absent-minded carelessness 80 per cent.

Table 27. -- RATING EMPLOYEES AGAINST EMPLOYMENT PROGRESS  
FACTORS TO FIND PROBABLE CAUSES FOR SEPARATION  
(as computed from 100 cases of separated employees)

Order of Importance	Progress Factors	Negative Percent- Age	Positive Payroll Worth
1	Misfit	33	67
2	Resourcefulness	27	73
3	Slowness--general	26	74
4	Indifference	25	75
5	Training	23	77
6	Achievement	21	79
7	Skill	21	79
8	Slipshod	21	79
9	Ability to follow in- structions	20	80
10	Carelessness--absent- minded	20	80
11	Violation of rules	18	82
12	Dissatisfaction--job	17	83
13	Drinking	13	87
14	Insubordination	13	87
15	Agitator	12	88
16	Dishonesty	12	88
17	Outside interests over- developed	12	88
18	Sluggish	12	88
19	✓ Ego Over-developed	11	89
20	Loafing	11	89
21	Tolerance	11	89
22	Trouble-maker	11	89
23	Carelessness--mindful	10	90
24	Dissatisfaction--envir- onment	10	90
25	Education	10	90
26	Personal differences	9	91
27	Misconduct	8	92
28	Over-confidence	6	94
29	Absenteeism	4	96
30	Hobbies over-developed	3	97
31	Lateness--habitual	3	97
32	Coercion	0	100

Rating employees against employment  
progress factors to establish mini-  
mum probabilities for advancement

This compilation of progress factors arranged in the order of their sequence as shown in Table 28 is to determine what would be the most important factors which one individual should have in order to be proficient in order to stand any possibility of advancement. According to the findings, ability to follow instructions ranks first while achievement, skill, training, resourcefulness, education, tolerance, would rank the highest. But in order to interpret Items Eight, Nine, Ten, and Eleven to Thirty-two inclusive, the antonym to the term used would be the correct positive rating item. For example, Item No. Eight--"slowness-general"--with a rating of 21.6 per cent would mean that he would rate 21.6 per cent in speed. In the next item, "indifference," the rating 15 per cent indicates that he is 15 per cent concerned positively toward the job or 85 per cent indifferent toward it.

Table 28. -- RATING EMPLOYEES AGAINST EMPLOYMENT PROGRESS FACTORS TO ESTABLISH MINIMUM POSSIBILITIES FOR ADVANCEMENT  
(as compiled from 100 advanced, 100 non-advanced, and 100 separated employees)

Order of Importance	Progress Factors	Percentage	Payroll worth
1	Ability to follow instructions	42	58
2	Achievement	40.6	59
3	Skill	40	60
4	Training	40	60
5	Resourcefulness	36.3	64
6	Education	31	69
7	Tolerance	23	78
8	Slowness--general	21.6	83
9	Misfit	17	85
10	Indifference	15	88
11	Carelessness--absent-minded	12	90
12	Slipshod	9.6	91
13	Dissatisfaction--job	9	91
14	Drinking	8.6	92
15	Violation of rules	8.3	92
16	Ego over-developed	8	92
17	Insubordination	8	92
18	Misconduct	7.3	93
19	Outside interests over-developed	7.3	93
20	Personal differences	7.3	93
21	Loafing	6.6	93
22	Sluggish	6.3	94
23	Dissatisfaction--environment	6	94
24	Trouble-maker	6	94
25	Agitator	5.6	94
26	Dishonesty	5.6	94
27	Carelessness--mindful	5.3	95
28	Over-confidence	4.3	96
29	Absenteeism	3.3	97
30	Lateness--habitual	2	98
31	Hobbies over-developed	1	99



Table 29 is a compilation of employment progress factors taken from the 300 booklets after the employees have been rated by the employers. This table is a reference sheet and no effort was made here to set the items up in the order of their importance inasmuch as the interpretation of the three types of employees has already been made.

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Table 29. -- EMPLOYMENT PROGRESS FACTORS AND REASONS  
OR CAUSES FOR CASE STATUS OF EMPLOYEES  
(as compiled from studies of 100 advanced, 100 non-  
advanced, and 100 separated cases)

Progress Factors	Adv.	Non- Adv.	Sep.	Probability of Success
1 Training	.66	.31	.23	.40
2 Achievement	.65	.36	.21	.406
3 Skill	.69	.30	.21	.40
4 Education	.47	.36	.10	.31
5 Coercion	.00	.02	.00	.006
6 Resourcefulness	.48	.34	.27	.363
7 Over-confidence	.00	.07	.06	.043
8 Misfit	.00	.18	.33	.17
9 Hobbies over-developed	.00	.00	.03	.01
10 Agitator	.00	.05	.12	.056
11 Personal differences	.00	.13	.09	.073
12 Outside interests over- developed	.00	.10	.12	.073
13 Indifference	.00	.20	.25	.15
14 Ego overdeveloped	.00	.13	.11	.08
15 Slipshod	.00	.08	.21	.096
16 Sluggish	.00	.07	.12	.063
17 Carelessness--absent- minded	.00	.16	.20	.12
18 Carelessness--mindful	.00	.06	.10	.053
19 Slowness-general	.00	.39	.26	.216
20 Insubordination	.00	.11	.13	.08
21 Absenteeism	.00	.06	.14	.033
22 Troublemaker	.00	.07	.11	.06
23 Drinking	.00	.13	.13	.086
24 Violation of rules	.00	.07	.18	.083
25 Misconduct	.00	.14	.08	.073
26 Dishonesty	.00	.05	.12	.056
27 Loafing	.00	.09	.11	.066
28 Dissatisfaction--Job	.00	.10	.17	.09
29 Dissatisfaction--envir- onment	.00	.08	.10	.06
30 Tolerance	.38	.19	.11	.23
31 Lateness--habitual	.00	.03	.03	.02
32 Ability to follow in- structions	.77	.30	.20	.42

Employer suggestions for employee corrective methods which would insure a higher type of employee personnel

The tabulation in Table 30 will indicate what the employers believe can be done by both school and industry which will be an improvement for the non-advanced and separated types of employees. "Advanced" employees need no corrections; therefore, no reference is made to that particular type.

The results of the findings indicate that one hundred and twenty-eight, or forty-three per cent of employers suggest that we should improve social and vocational counsel in grade and secondary schools. Eighty-nine of the employers or thirty per cent suggest that the employee should be required to continue education while employed. Eighty-seven of the employers, or twenty-nine per cent, suggest that they should improve their method of selecting employees. Twenty-seven suggest that there should be closer cooperation between the school and employer. Twenty-five per cent suggest that we should improve the vocational and social counseling system within the plant. Twenty-five per cent likewise suggest there should be an improved method of training in grade and secondary school, while twenty-three per cent suggest there should be a closer cooperation between the school and home and twenty-three per cent suggest we should improve the vocational training in high schools.

Table 30. -- EMPLOYER SUGGESTIONS FOR EMPLOYEE CORRECTIVE METHODS WHICH WOULD INSURE A HIGHER TYPE OF EMPLOYEE PERSONNEL  
(Compiled from results of 300 employee analyses)

	Suggested corrective method	No. cases where suggested	Per Cent
1	Improve social and vocational counseling in grade and secondary schools	128	43
2	Required to continue education while employed	89	30
3	More selective employment methods	87	29
4	Closer cooperation between school and employer	80	27
5	Improve vocational and social counseling system within the plant	75	25
6	Improve method of general training in grade and secondary schools	74	25
7	Closer cooperation between school and home	70	23
8	Improve vocational training in high schools	68	23
9	More influential friends advising employee	64	21
10	Improve training in mathematics	53	18
11	Improve method of English instruction	40	13
12	Closer cooperation between employer and home	35	12
13	Improve method of vocational selection	34	11
14	Improved course in mechanical drawing	27	9
15	Improved course in science	19	7
16	More frequent analysis of employee by physician	10	3
17	Consultation of employee by psychiatrist	7	2

DISCUSSIONCase history in  
rating employees

The summarization of the case data is pertinent to the problem herein studied, although it does not answer any question.

It shows, for example, that the average age is 33.1 years for advanced, 36 years for non-advanced, and 30 years for separated, or 33.1 years average age of all employees rated and that the time of employment for the advanced is 7.9 years, 7 years for the non-advanced, and 2.9 years for the separated. This last statement would indicate that the employer had in almost every case known his employees for a long enough period to allow him (the employer) to make a fair rating of each employee. It would seem, according to the findings of this table, that in order for one to be successful, he must be of very high intelligence, inasmuch as eighty-six of the advanced cases were rated "high" in that respect.

### Employment officers

According to the data gathered, the owner is the most efficient employment officer. The reason for that, perhaps, is that in the San Francisco Bay District there are but very few "personnel managers" at the present time. In the findings, it was noted that the "personnel manager" does rate the highest in his efficiency in picking cases of the "advanced" type. This part does not answer any of the questions but it was pertinent to the problem.

### Selection methods

From the results of this study it is readily seen that very little attention is paid to any other selection method except the oral interview and very little consideration is given to tests of any kind. This material is considered pertinent to the problem but it is not in answer to any of the questions.

### Sources from which employees are chosen and extent to which employment agencies function

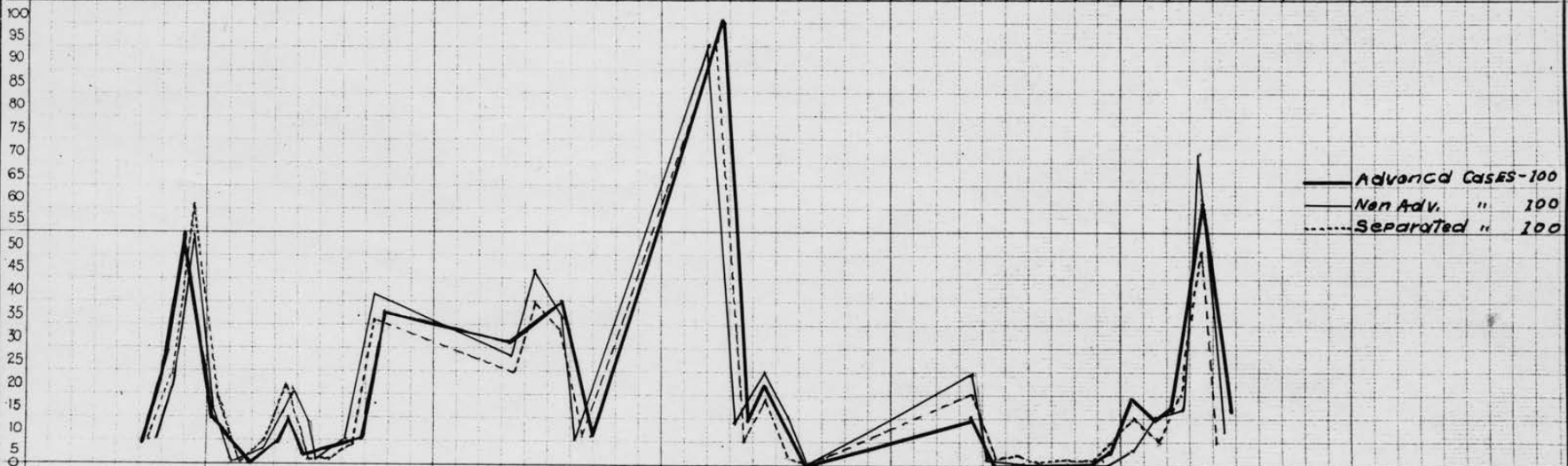
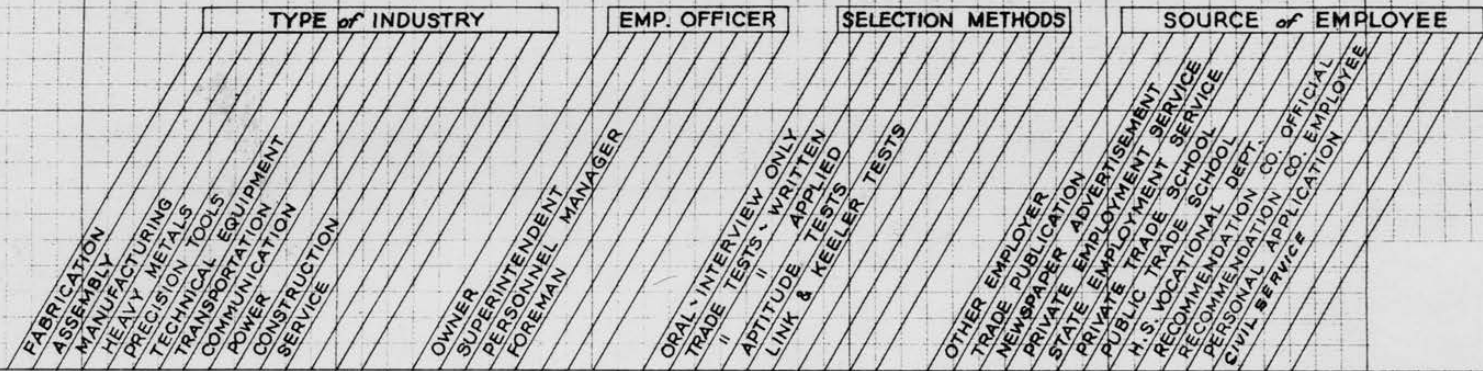
It has been shown from the results of this study that the majority of employees are selected by "personal application", which means that in such cases there is no connection with any employment agency. The high school vocational departments supplied only eight and one-third per cent of the employees, which answers

CHART No 1

# GRAPHIC ANALYSIS of EMPLOYMENT METHODS

## THEIR RELATION to EMPLOYEE ADVANCEMENT, NON-ADVANCEMENT and SEPARATION

PERCENTAGE - POSITIVE



— Advanced Cases-100  
 - - - Non Adv. " 100  
 . . . Separated " 100

ADVANCED	4	25	49	10	0	4	10	2	3	6	33	26	31	35	6	95	9	17	9	0	10	0	0	0	0	0	1	3	24	10	12	57	12
NON ADV.	5	16	51	12	1	3	16	11	1	5	36	23	47	31	5	90	9	20	10	0	19	1	0	0	0	1	6	3	10	12	67	7	
SEPARATED	0	19	58	14	0	5	17	1	1	4	81	19	45	29	6	91	5	14	2	0	15	1	2	0	0	0	5	10	5	15	45	5	

Question 1 of this study. This indicates that so few students are taken from the vocational departments that they bear little significance to industry. Reference is made here to Chart 1, which shows the composite of employment methods. The apparent insignificance of the vocational department as an employment agency is readily seen by the graphic analysis on this chart.

Employee selection as to educational levels

It would seem that education has little to do with one's success in industry, other than that he be a graduate from the eighth grade in school. As Table 19 shows, 181 cases of the 300, or 60 per cent of the employees had at least a high school education. The companion Chart (2) of this table will show that there is very little difference between the educational levels of advanced, non-advanced, and separated employees. The study of this chart and table will show very definitely that in so far as these 300 employees were concerned, the vocational department of the high school had very little to do with their education.

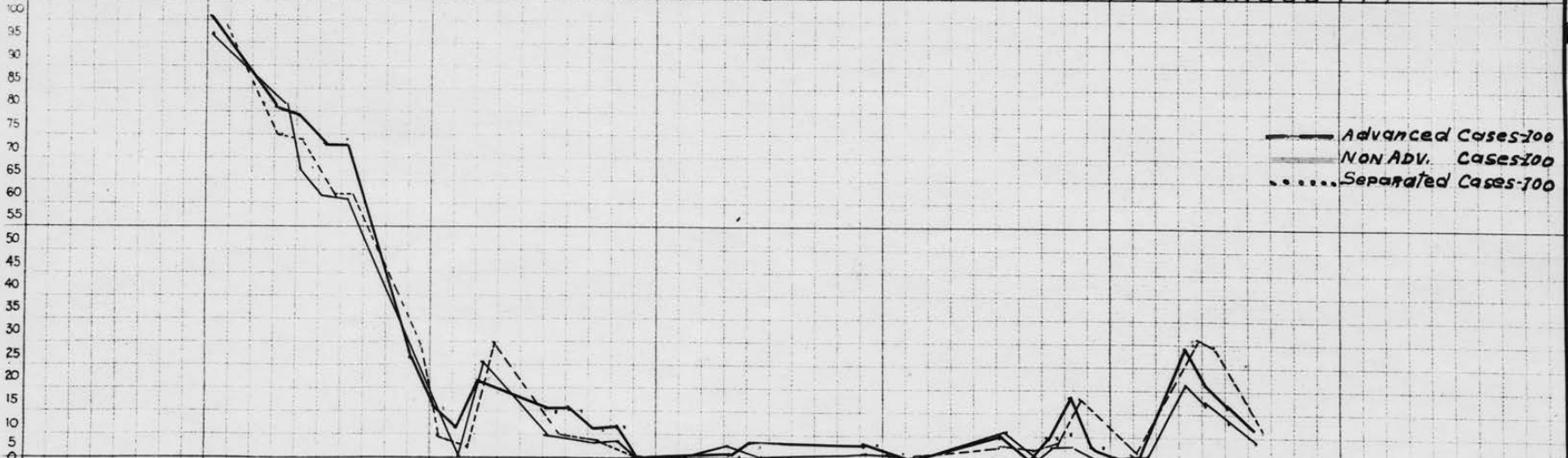
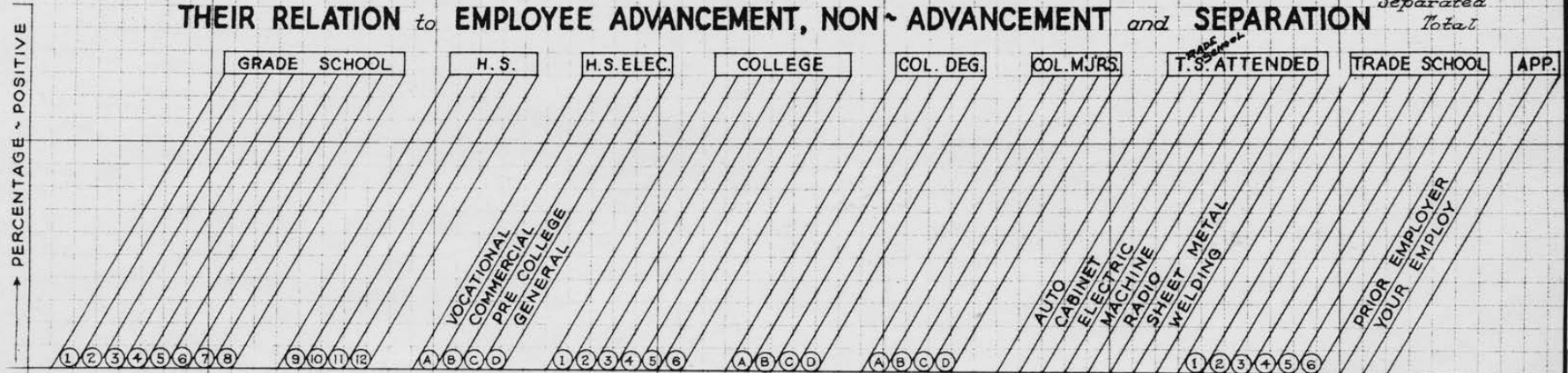
Question 2 of this study is answered definitely in Chart 2, which will indicate that employers do not make a distinction between vocational graduates and high school graduates in favor of the vocational department. The facts herein presented indicate that the regular high school is given preference over vocational training.



CHART No 2.

GRAPHIC ANALYSIS of EMPLOYEE EDUCATIONAL LEVELS and  
 THEIR RELATION to EMPLOYEE ADVANCEMENT, NON-ADVANCEMENT and SEPARATION

Advanced Cases  
 Non " "  
 Separated " "  
 Total



— Advanced Cases-100  
 - - - Non Adv. Cases-100  
 ..... Separated Cases-100

ADVANCED	96	76 74 68 68	22 11 7 17	10 10 7 7 0 0	11 3	3 1 0	5 0 5 13 3 1 1	24 17 12 7 0 0
NON ADV.	92	71 63 57 56	13 10 0 21	5 4 3 3 0 0	3 0	1 1 0	6 0 3 6 0 0 1	16 12 8 4 0 0
SEPARATED	94	70 68 57 57	24 5 3 25	5 4 4 3 0 0	0 0	0 0 1	4 2 4 13 0 0 2	26 24 17 6 0 0

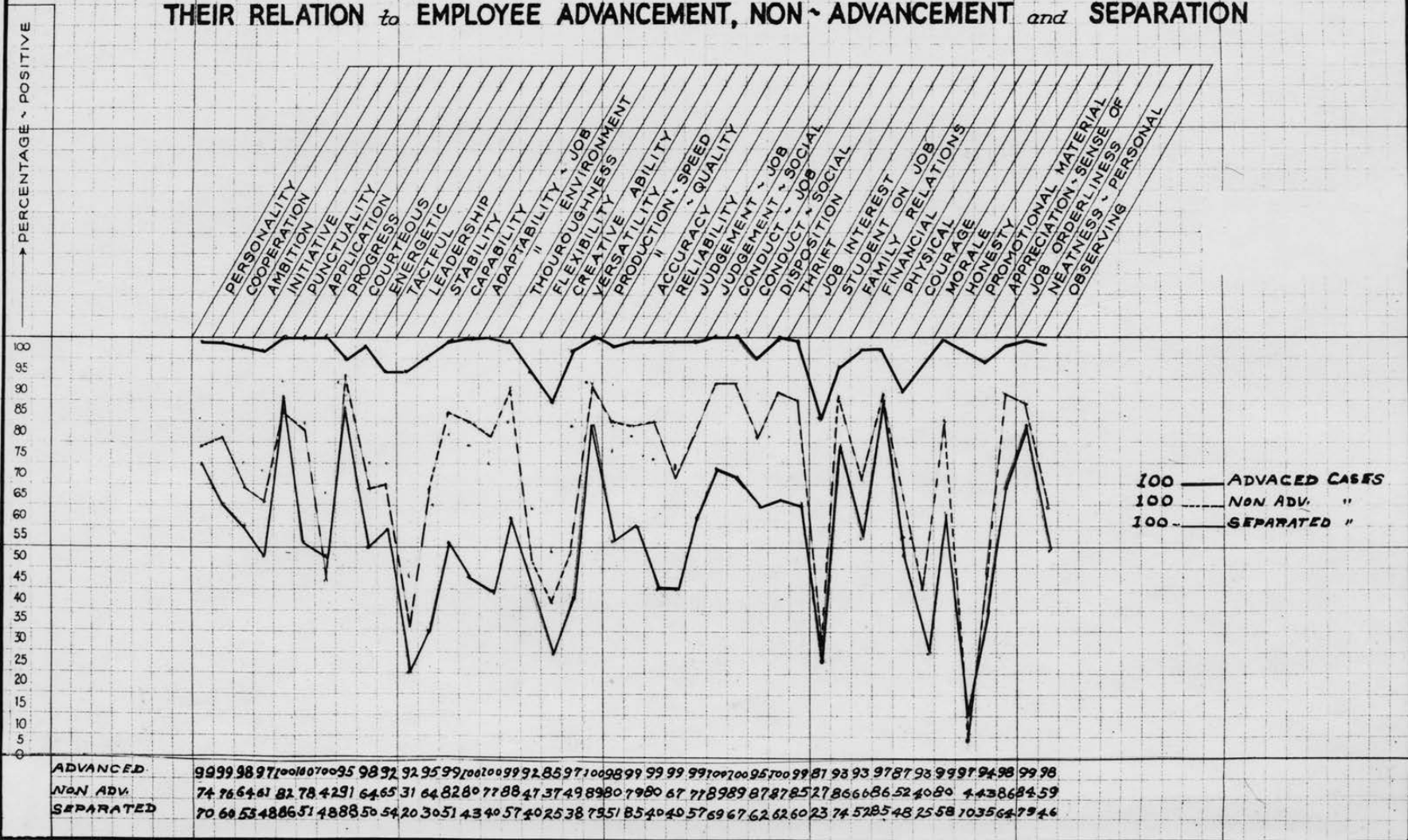
It should be pointed out with reference to the data which are illustrated in Table 19 and Chart 2 that the average age of the three types of employees is 33.1 years. Assuming that these employees went to work in 1925 when they were 18 years of age, there is no reason why they should not have had vocational training in the Bay district inasmuch as there were vocational departments available in that region previous to 1925.

Personal characteristics and their values in relation to employee advancement.-- Judging from the percentages in proficiencies with which the employers rated the 100 advanced employees studied, it seems evident that employers expect a great deal from the type of employee who is to be promoted. Inasmuch as these cases were outstanding in leadership, their ratings naturally are high.

Referring to Chart 3, it will be noted that the outstanding advanced cases, as were the cases in the study, may rate comparatively high in such things as (1) creative ability (2) being a student while on the job, and (3) courage. However, it should be noted that even courage has a rating of 88 per cent. To advance, therefore, on a job, as indicated by Advanced Probability Chart 23, one may have a much lower grade in personality, for example, than is shown in the ideal

CHART No 3

GRAPHIC ANALYSIS of PERSONAL CHARACTERISTICS  
 THEIR RELATION to EMPLOYEE ADVANCEMENT, NON-ADVANCEMENT and SEPARATION



case where the percentage is 99. The low point of probability of advancement, according to Table 23, is seen to be 81 per cent. On that same chart, it is seen that one may be the advancement type of employee and still have a percentage as low as 37 per cent, which is indicated by "promotional material", Item 42, Table 23.

The reason for creative ability being low is that the average employee of the advancement type is not called upon to do much creative work. That is done by the engineering department. The reason why he is allowed so much latitude under the item "student on the job", Table 23, Item 41, is that heretofore it has always been left to the judgment of the employee.

Personal characteristics and their values in relation to employee, non-advanced. -- By referring to Chart 3, it will be seen that for convenience the non-advanced and the separated are discussed together. The graph indicates a similarity between the non-advanced and separated. The only difference between the two is that the separated type of employee drops a little lower in important points of personal characteristics. The employment characteristics, as derived from personal characteristics, would be the main average of the percentages of the three types of employees. It is not shown on the chart because of the complications in reading. Question 3 of this study is answered in part by Chart 3.

Rating employees against employment progress factors to find probable causes for advancement. Progress factors were used here because there seemed to be a slight difference between personal characteristics and job progress factors during employment. This is very clearly pointed out in Table 25, for which the outstanding item is ability to follow instructions. The percentage of 77, which is the rating given to ability to follow instructions, is even lower than the percentage of 81 which is rated against student while employed in Table 20, Item 42.

The items of ability to follow instructions, skill, training, achievement, resourcefulness, education, and tolerance were given by employers as the outstanding reasons why the employee advanced, if such were the case. Then the above seven progress factors become employment characteristics, and should be added to the twenty-two personal characteristics as indicated in Table 23.

Rating employees against employment progress factors to find probable causes for non-advancement.--- For convenience, Tables 26 and 27 will be discussed together inasmuch as each one has a direct bearing upon the other. Both the non-advanced and separated type of employee, according to the ratings of the employer, are potentially undesirables, as would be deducted by the percentages shown. As previously pointed out, the percentages of those charts indicate positive values,

or the antonym for the characteristics. The non-advanced type shows the highest positive factors of 39 per cent against slowness, which would mean that his rating in speed would be only 39 per cent, while the separated type, Table 27, Item 3, shows only 26 per cent positive as an indication of his speed ability. The positive percentages in ratings of both the non-advanced and the separated employees being so far below normal, it is plain that these immediately become unemployment characteristics.

Rating employees against employment progress factors to establish minimum possibilities for advancement. -- By taking the corresponding progress factors and percentages as indicated in advanced, non-advanced, and separated employees, the composite list of minimum possibilities for advancement is deducted and recorded in Table 31.

Table No. 31 -- EMPLOYMENT CHARACTERISTICS IN THE FORM OF PROGRESS FACTORS AND THE MINIMUM POSITIVE PERCENTAGES ALLOWED FOR ADVANCEMENT POSSIBILITIES

Order of Importance	Progress Factors	Negative Percentage Minimum Allowance	Positive Percentage Minimum Allowance
1.	Hobbies over-developed	.01	99
2.	Lateness habitual	.02	98
3.	Absenteeism	.03	97
4.	Over-confidence	.04	96
5.	Carelessness	.05	95
6.	Dishonesty	.06	94
7.	Agitator	.06	94
8.	Trouble-maker	.06	94
9.	Dissatisfaction of environment	.06	94
10.	Sluggish	.06	94
11.	Loafing	.07	93
12.	Personal differences	.07	93
13.	Outside interests over-developed	.07	93
14.	Misconduct	.07	93
15.	Insubordination	.08	92
16.	Ego over-developed	.08	92
17.	Violation of rules	.08	92
18.	Drinking	.09	91
19.	Dissatisfaction of job	.09	91
20.	Slipshod	.10	90
21.	Carelessness--absent-minded	.12	88
22.	Indifference	.15	85
23.	Misfit	.17	83
24.	Slowness, general	.22	78
25.	Tolerance		23
26.	Education		31
27.	Resourcefulness		36
28.	Training		40
29.	Skill		40
30.	Achievement		41
31.	Ability to follow instructions		42

The final deductions then, with regard to progress factors, will be that Items 1 to 24 inclusive of Table 30 become unemployment characteristics, and Items 25 to 31 inclusive, employment characteristics as previously referred to in Table 25. This completes the answer to Question 3, and the full list of employment characteristics is now presented in Table 31.

Analysis of employers' suggested corrective measures.-- It is readily seen from Table 30 and the interpretation which went with it that the employer thinks we have a great deal of room for improvement in the vocational counseling program in grade and secondary schools. This is further illustrated in Chart 4. Thirty per cent of employers also think that employees should be required to continue education while employed. It is assumed that they refer to any kind of education which would improve them in their work. This would indicate that there is a fertile field in industry for an improved vocational plan, providing it is properly promoted.

Another item that is worthy of consideration is the fact that 27 per cent of the employers believe there should be a closer co-operation between the school and the employer. What they really mean is that the vocational schools should associate themselves more closely and more earnestly with industry. They are willing to co-operate with schools, but the impression

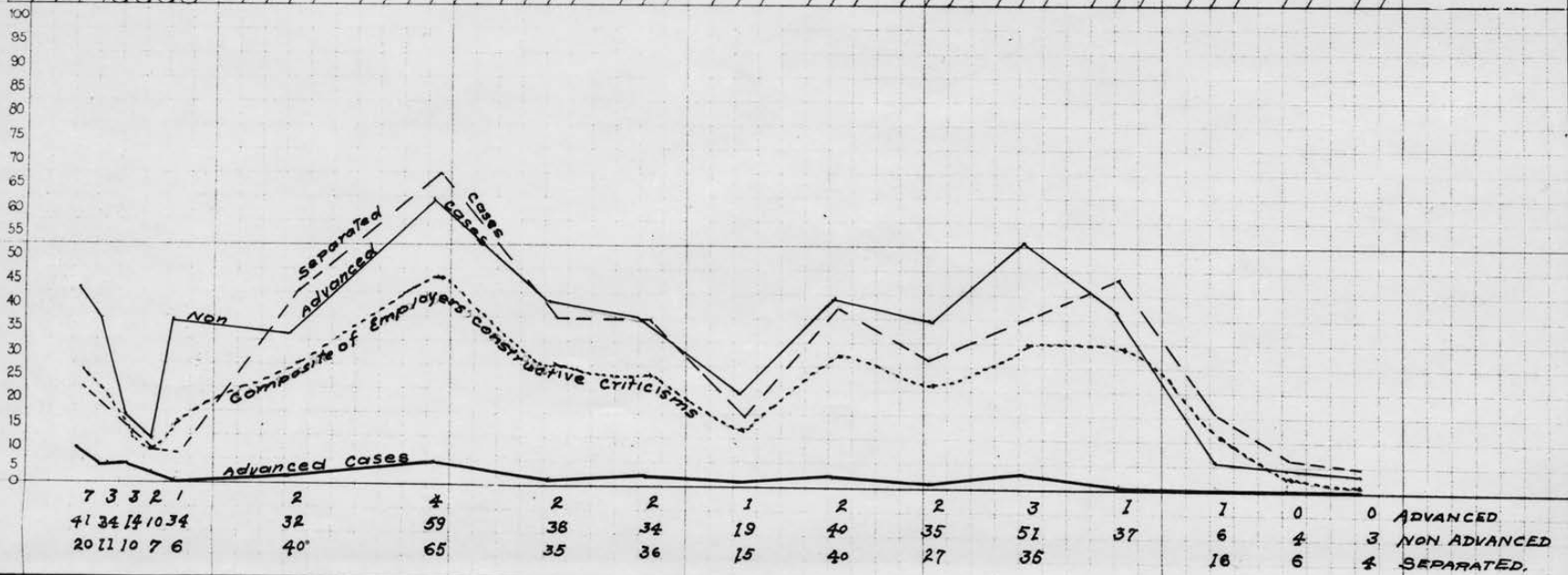


CHART No 4

# GRAPHIC ANALYSIS of EMPLOYER SUGGESTED CORRECTIVE MEASURES

PERCENTAGE POSITIVE

- (A) IMPROVED METHOD OF GENERAL TRAINING IN GRADE AND SECONDARY SCHOOLS
- (B) MATHEMATICS MECHANICAL SCIENCE ENGLISH DRAWING
- (C) IMPROVED METHOD OF GENERAL TRAINING IN GRADE AND SECONDARY SCHOOL
- (D) MORE INTENSE VOCATIONAL AND SOCIAL COUNSELING IN GRADE AND SECONDARY SCHOOLS
- AN IMPROVED SYSTEM OF VOCATIONAL AND SOCIAL COUNSELING WITHIN THE PLANT
- CLOSER COOPERATION BETWEEN SCHOOL AND HOME
- CLOSER COOPERATION BETWEEN EMPLOYER AND HOME
- CLOSER COOPERATION BETWEEN EMPLOYER AND SCHOOL
- MORE INFLUENTIAL INDIVIDUALS TAKING PERSONAL INTEREST
- REQUIRED TO CONTINUE EDUCATION WHILE EMPLOYED
- MORE SELECTIVE EMPLOYMENT METHODS
- IMPROVED METHOD OF VOCATIONAL STUDENT SELECTION
- CONSULTED PHYSICIAN
- CONSULTED PSYCHIATRIST



gathered while collecting material for this study is that industry does not feel that any part of the school system is going very far out of its way to co-operate with it.

In the order of their importance the suggested corrective methods are herewith set up in the extent that they affect the school.

1. Improve social and vocational counseling in the grade and secondary school.
2. A closer co-operation between the school and the employer.
3. Improve the method of general training in grade and secondary schools.
4. Encourage closer co-operation between the school and home.
5. Improve the vocational training program in the schools.
6. Improve training in mathematics.
7. Improve method of English instruction.
8. Improve method of vocational selection.

The above items will answer Question 5 of this study.

The employer also has imposed a burden of responsibilities upon himself by the deductions gathered from his own experiences. These are herewith presented in the order of their importance.

1. Require the employees to continue education while employed.
2. Improve employment methods and make them more selective.

3. Improve the vocational and social counseling system within the plant.

It is judged by the above statements that the employer feels the urgent need of improving the efficiency of employment management within his plant. It has been pointed out before, in the Review of Literature, that employment management had not until recently become such an important factor in the smaller organizations. However, this study will indicate that the employers as a whole are thinking in terms of human engineering as a means of improving plant efficiency.

These items with regard to employer responsibility do not answer directly any of the questions in this study, but they do imply a significance to Question 4. If the employer were to make his employment methods more selective, and if he were to develop or improve his vocational and social counseling system within the plant, it would mean that he would set up a personnel management system; and by so doing he would immediately establish a system of employment by use of employment characteristics. Therefore, the employment characteristics which are set down in Table 31 would be of great value to the employer in setting up employee selection rating charts.

The material presented in Chapter III furnishes answers to all subordinate questions, and therefore solves the major problem: "What are the fundamental

employment characteristics in the metal working trades in the Bay District of San Francisco, California?"

Recommendations for the improvement of the efficiency of the vocational program will be presented in Chapter IV.

## Chapter IV

## RECOMMENDATIONS

The problem which this study attempts to solve in the metal trades industries of the San Francisco Bay District of California is to determine fundamental employment characteristics and to recommend changes in the local vocational educational training program in the light of these findings. The questions which arose out of the problem and which this study has attempted to solve are as follows:

1. To what extent does industry give time or accomplishment credit to graduates of vocational schools when they enter industry?
2. Do employers make a preferable distinction between vocational graduates and regular high school graduates?
3. What constitutes recognized employment characteristics and other assets which might be used as teaching responsibilities and employment aids?
4. In what way would these employment characteristics be of value to the employer when analyzing prospective employees or checking the program of employees?
5. What means or methods may be employed to improve the efficiency of the vocational program?

The findings of this study are as follows:

1. Industry as a whole gives only a small degree of credit to graduates of vocational departments when they enter industry.
2. Employers as a whole do not make a preferable distinction between vocational graduates and regular high school graduates in favor of the vocational graduates. The study will show that the preference is for the regular high school graduates instead of those coming from the vocational departments.
3. Table No. 32 entitled "Employment Characteristics" is the result of the findings of this study.

Table 32--EMPLOYMENT CHARACTERISTICS PLACED  
IN THE ORDER OF THEIR IMPORTANCE  
AS POSSIBLE EMPLOYMENT ADVANCE-  
MENT FACTORS

Order of Impor- tance	Employment Characteristics	Minimum Percentage for Advancement Expectancy
1.	Courteousness - - - - -	91
2.	Physical fitness--health- - - - -	89
3.	Production speed- - - - -	89
4.	Punctuality - - - - -	89
5.	Neatness--Personal- - - - -	87
6.	Conduct--job- - - - -	86
7.	Conduct--social - - - - -	85
8.	Family relations, good- - - - -	84
9.	Thrift (employer) - - - - -	83
10.	Job orderliness - - - - -	82
11.	Job interest- - - - -	81
12.	Personality - - - - -	81
13.	Thoroughness- - - - -	81
14.	Honesty - - - - -	79
15.	Co-operation- - - - -	78
16.	Disposition - - - - -	77
17.	Ability to follow instructions- - - - -	77
18.	Production quality- - - - -	76
19.	Accuracy- - - - -	74
20.	Adaptation to job - - - - -	74
21.	Capability- - - - -	74
22.	Judgment--social- - - - -	74
23.	Reliability - - - - -	74
24.	Adaptability to environment - - - - -	72
25.	Ambition- - - - -	72
26.	Energetic - - - - -	71
27.	Financially sound - - - - -	70
28.	Tactful - - - - -	70
29.	Skill - - - - -	69
30.	Initiative- - - - -	68
31.	Judgment--job - - - - -	68
32.	Observing - - - - -	68
33.	Training- - - - -	66
34.	Achievement - - - - -	65
35.	Stability - - - - -	63
36.	Courage - - - - -	62
37.	Versatility - - - - -	61

Table 32--EMPLOYMENT CHARACTERISTICS PLACED  
IN THE ORDER OF THEIR IMPORTANCE  
AS POSSIBLE EMPLOYMENT ADVANCE-  
MENT FACTORS (Continued)

Order of Importance	Employment Characteristics	Minimum Percentage for Advancement Expectancy
38.	Flexibility- - - - -	59
39.	Appreciation, sense of - - - - -	57
40.	Morale - - - - -	52
41.	Creative ability - - - - -	49
42.	Resourcefulness- - - - -	48
43.	Leadership - - - - -	47
44.	Education- <sup>(Not formal)</sup> - - - - -	47
45.	Student while employed - - - - -	43
46.	Tolerance- - - - -	38
47.	Promotional material - - - - -	37



4. These employment characteristics would be of value to the employer as follows:
  - a. To use them as a rating chart when making an analysis of prospective employees.
  - b. To use them as a rating chart when checking the progress of employees on the job.
5. These above are the answers to questions 1, 2, 3, and 4 and the answer to question 5 is set up as follows:

Recommendations for improvement of vocational training programs

- a. Improve our social and vocational counseling systems in the grade and secondary schools.
- b. Set up more industrial advisory committees for the vocational department and see to it that they function as advisories.
- c. Improve the general training program in the grade and secondary schools to the extent that the subject matter and work done will be more directly in line with contemporary needs of individuals and more directly allied to industry.
- d. Set up a better functioning program for student advisement by typing the advisory system with the parent organizations, in order that those who need guidance and counseling may get it through a source which is directed by the regular advisor or teacher in the school.
- e. Improve the vocational training program in the schools and make them function in a way that will parallel the work the boys in the vocational departments will do when they enter industry.

This can be done by closer cooperation with industry and having more of the work directed by the advisory committees.

- f. Set up a more definite program of mathematics for all students in the vocational department.
6. If industry is to give time or accomplishment credit to graduates of vocational schools when they enter industry, then the vocational departments must adhere to the advice offered by the trade advisory committee. The recommendation is that the local programs in vocational education shall follow more closely the advice given by the trade advisory committees.
7. If the vocational department is proud of its accomplishments, it should advertise itself--inform industry of the high standards of the department and the quality of students being trained.
8. Develop aptitude tests for measuring abilities of students. If industry acknowledges the trends toward aptitude tests (13) then the vocational school should be a leader in the field of employee selection and rating.

Recommendations for the  
improvement of employer-  
employee relationships

1. Strengthen personnel manager system by employing a personnel manager.
2. Set up application blanks and personal analysis charts based upon the employment characteristics compiled from this study.
3. Set up employment record cards or rating charts based upon the employment characteristics compiled from this study and use them for rating the daily progress of the employees.

4. Require all employees regardless of age to attend some type of educational institution while employed.

Limitations in carrying out the recommendations of vocational program

Vocational Education--There are certain limitations which are bound to exist in every vocational department, because of the fact that in most cases vocational departments are undermanned from the standpoint of supervision and coordination. The limitations against these recommendations, therefore, are:

1. Possible inability on the part of the supervisor to recognize the responsibility which is normally his in trying to tie the vocational program more closely with industry.
2. Possible refusal on the part of the Board of Education to add additional coordinators and supervisors to the local staff of the vocational education programs.
3. Rigidity of most of the general programs in the elementary and high schools. It will require a great deal of promotion in order to make any changes which will fit them more closely to industrial needs.
4. The fact that before any administrator will allow a vocational program to expand, he will have to be shown evidence of worth of present work which will warrant additional expenditure for a coverage of a greater territory in vocational training.

5. The fact that the average teachers at the present time are too over-burdened with extra-curricular activities and the regular duties of the class room work to allow them to do home visitation or individual counseling. It will be necessary to overcome this difficulty by finding some additional help for them, of either the voluntary or salaried type.

#### Limitations for industrial improvement

1. Keen competition in industry in the past few years has made it necessary among the smaller plants that every man carry a heavy burden. The developing of additional records and individual counseling is going to take a great deal of extra time on the part of some employees, whether it be the personnel manager, owner, superintendent, or foreman. The management will have to consider the development of human engineering from the standpoint of economical gain only.
2. There is a scarcity of the true type of personnel manager which industry wants today. There are no facts in this study to prove this, but it is an accepted fact among employers nevertheless.
3. Employees in industry, having once obtained a foothold in employment, become more or less independent and mentally lazy. As a whole they would object to being told to attend classes in educational work.
4. In some states the Labor Law requires that an employer shall pay an employee for any time that he may spend in school on the management's orders. Therefore, if a training program is made compulsory in employment, it may have to be put on during the regular day schedule, otherwise the employees will receive extra pay for evening attendance in educational classes.

New problems suggested by the results of  
this study

1. To determine dependable aptitude tests which would:
  - a. Aid in more accurate employee placement in industry
  - b. Encourage more efficient employee development by finding potential abilities in other types of work within the factory.
2. To determine the economic value of efficient personal management in small sized organizations as a basis for the employment of a personnel manager.
3. To determine the economic gain due to efficient vocational education as a basis for increasing supervisory personnel.

Supervisory personnel is usually a burden on administrative expense. In order to increase that fund, there would have to be a economic justification for the benefit of the taxpayer and state and local public school business management.

## Chapter V

## SUMMARY

The writer is located in that part of California which is known as the San Francisco Bay District. It is a metropolitan area composed of many large industries of which the metal trades form a large proportion. The city of Alameda has a large vocational department as well as the other cities of the Bay District. In working out the program of vocational education in Alameda, it has always been the custom to work very closely with industry. In working with industry it has been possible to find a great many of their problems and to realize that their problems in so far as employment management is concerned are practically the same as are pre-employee training problems.

The problem of rating employees has always been one of serious nature in this district and one in which all of the employers are vitally interested. There have been three types of employees recognized, namely, the Advanced, the Non-Advanced, and the Separated. The advanced type of employee refers to that employee who always seems to get ahead and steadily rises from one pay roll job to another. The non-advanced type of employee is the type who for some reason or other never receives

a promotion. The third or the separated type is the problem case of employee whom the employer is eventually forced to discharge.

The problem which this study attempts to solve is to determine fundamental employment characteristics and to recommend ways in which the local vocational training program may be improved in its efficiency. The solution of this problem will depend upon the answers to the following questions:

1. To what extent does industry give time or accomplishment credit to graduates of vocational schools when they enter industry?
2. Do employers make a preferable distinction between vocational graduates and regular high school graduates?
3. What constitutes recognized employment characteristics and other assets which might be used as teaching responsibilities and employment aids?
4. In what way would these employment characteristics be of value to the employer when analyzing a prospective employee or checking the progress of an employee?
5. What measures or methods may be employed to improve the efficiency of the vocational program?

In order to work out this study, a conference group was organized to determine what procedure to follow in collecting these data and to find what those employers who were intensely interested in employee upgrading considered the most important employment characteristics. The conference lasted for 27 meetings

during which time certain pertinent data were compiled. Following the conference, individual interviews were held with leading employers of the Bay District to get further information and to develop ways and means of collecting this information.

The methods and procedures as compiled up to this time were carefully studied with the view of constructing devices for gathering information. An information booklet instead of a questionnaire was used. Approximately 400 of these booklets were made up and taken out to 50 employers. The booklets were accompanied by an instruction book which gave full directions as to how to rate each of the characteristics provided therein. Forty-five of the 50 employers returned the booklets completely filled out. The data gathered were divided into four divisions as follows:

I. THE CASE HISTORY was for the purpose of determining the distribution of the employees as to the industry, who the employment officer was and his efficiency, source from which the employee was chosen or hired, methods by which the selection was made and the educational status.

II. PERSONAL CHARACTERISTICS. Having previously compiled the personal characteristics as gathered from the conference and other literature and rating cards which the employers had supplied a list of 42



personal characteristics were set up against which each employee was rated.

III. REASONS FOR CASE STATUS OR JOB PROGRESS FACTORS. It was found that every individual either advances, he stands still or he is discharged for certain various specific reasons which may be a thing apart from the personal characteristics or actual employment habits. Therefore, when the employers had completely analyzed the employees from the standpoint of personal characteristics they indicated the reason for the employee's present status.

IV. EMPLOYER COMMENTS AND SUGGESTED CORRECTIVE MEASURES. Assuming that the employer had made a complete diagnosis of the case before him, he should then be ready to prescribe remedies which, had they been applied to the particular cases in mind, they might have insured an improvement for both the non-advanced and the separated types of employee. The advanced type of employee, it is assumed, would not need any corrective method. However, whatever would be good for the non-advanced and the separated types of employee would also be helpful to the best. The data gathered under these headings were compiled into charts and tables. The charts, being four in number, are for graphic presentation of the status of the three types of employees. The charts are for analytic purposes and for the purpose of determining what employment characteristics are and for the purpose of answering the five

questions set up in the problem. In the final analysis it was found that employment characteristics were made up of the 42 personal characteristics (See Table 23) plus seven job progress factors (See Table 24). These two tables were compiled into a third table (See Table 32), and arranged in the order of their minimum percentage for advancement expectancy, thereby answering question 3 of this study. The answer to the five questions are herewith set up in regular order.

1. Industry as a whole gives only a small degree of credit to graduates of vocational departments when they enter industry.
2. Employers as a whole do not make a preferable distinction between vocational graduates and regular high school graduates in favor of the vocational graduates. The study will show that the favor is for the regular high school graduates instead of those coming from the vocational departments.
3. Table 32, entitled "Employment Characteristics" is the result of the findings of this study.
4. These employment characteristics would be of value to the employer as follows:
  - a. To use them as a rating chart when making an analysis of prospective employees.
  - b. To use them as a rating chart when checking the progress of employees on the job.
5. In answer to question 5 the following recommendations for improvement of the vocational programs are thus stated:
  - a. Improving our social and vocational counseling systems in the grade and secondary schools.

- b. Set up more industrial advisory committees for the vocational department and see to it that they function as advisories.
- c. Improve the general training program in the grade and secondary schools to the extent that the subject matter and work done will be more directly in line with contemporary needs of individuals and more directly allied to industry.
- d. Set up a better functioning program for student advisement by tying the advisory systems with the parent organizations in order that those who need guidance and counseling may get it through a source which is directed by the regular advisor or teacher in the school.
- e. Improve the vocational training programs in the schools and make them function in a way which will parallel the work the boys in the vocational departments will do when they enter industry. This can be done by closer cooperation with industry and by having more of the work directed by the advisory committees.
- f. Set up a more definite program of mathematics for all students in the vocational department.

## APPENDIX

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Appendix A

INSTRUCTION BOOK

PREFACE

The different standards of rating employees makes it seem advisable to establish some sort of rating scheme which could be accepted and used both by industry and by vocational schools. Such a rating scheme would be of very material help to vocational departments in both vocational guidance and vocational training.

It is hoped that the material set forth in this phamplet may render a real service not only to personnel managers and employers, but also to those of us who are engaged in the business of training young men for employment.

INSTRUCTIONS FOR FILLING OUT  
DATA SHEETS FOR EMPLOYEE STUDY

INSTRUCTIONS - PAGE 1

- EMPLOYER NO. - Leave blank.
- INDUSTRY - The employer should check here the type of work engaged in.
- EMPLOYMENT OFFICER - Who is the employment officer?
- CASE CLASSIFICATION - What is the present status of the case? Has he been advanced? Is he still in the same position? Have his services been discontinued?
- PRESENT JOB CLASSIFICATION - What is the employee doing now if he is still in your employ?
- CASE STATUS - What is the present status of the employee, if you know? Also check age as of date according to your records.
- EMPLOYER SELECTION METHOD - This is an attempt to attain your method of selection.

INSTRUCTIONS - PAGE 2

SOURCE OF EMPLOYEE - How did you get the employee in the first place?

INDICATE NUMBER OF PREVIOUS EMPLOYERS - Check as many of these items as you can with regard to the employee, his apprenticeship, intelligence, education, etc.

INSTRUCTIONS - PAGE 3

12. PERSONAL CHARACTERISTICS - How does he impress you personally?
14. COOPERATION - How does he seem to get along with others? Is he a helper, etc.?
15. AMBITION - Excess ambition may be the cause of one losing his job. He may have ambitions over his head for someone else's job, or he may have the required amount of ambition for the type of job you want.
16. INITIATIVE - Having over-initiative may cost one his job. It is true he may be a self-starter, but he may forget to turn off the power and overdo the job or do the wrong thing.
17. PUNCTUALITY - Is he regularly on the job and ready to work at the stated time as per the employer-employee agreement?
18. APPLICATION - Does he give the appearance that he is doing the job because he is interested or is he just looking for Saturday night and a paycheck?
20. PROGRESS - Progress has to do with his industrial achievement and other personal characteristics which might go in a summary as indicated.
21. COURTEOUS - Even in a job, courtesy may be a factor that causes you to respect an employee above all others.

INSTRUCTIONS - PAGE 4

22. ENERGETIC - Refers to application and is really a double check.
23. TACTFUL - Does he say the wrong thing at the wrong time, or does he use good judgment?
24. LEADERSHIP QUALITIES - Does he possess the type of leadership qualities which will make him possible leadership material for your factory?
26. STABILITY - JOB - Does he have the "stick-to-it-ness" and dependability which a job requires?
27. CAPABILITY ON JOB - Can he "cut the buck"?

INSTRUCTIONS - PAGE 4 (continued)

28. ADAPTABILITY TO JOB - He may be a hard worker, but he may be a round peg in a square hole.
29. ADAPTABILITY TO JOB ENVIRONMENT - He may be able to work in a shop with a polished floor and wear a white collar, but how does he fit your shop?
30. THOROUGHNESS ON JOB - Are his jobs always complete according to your specifications?
31. FLEXIBILITY - Can you move him from one station to the other with ease?

INSTRUCTIONS - PAGE 5

32. CREATIVE ABILITY - Does he see beyond the drawing on the blueprint?
33. OCCUPATIONAL VERSATILITY - Easy to turn from one occupation to another?
34. SPEED - PRODUCTION - Self-explanatory.
36. ACCURACY ON JOB - Can he be depended upon for the tolerances allowed?
38. RELIABILITY - This means the same as dependability. Will he always be on the job when you want him?
40. JOB JUDGMENT - Can you depend upon his judgment for what may be determined a good job?
41. SOCIAL JUDGMENT - How about his companions and his activities after working hours?
42. JOB CONDUCT - Self-explanatory.
43. SOCIAL CONDUCT - Ability to get along with other employees during or after working hours.

INSTRUCTIONS - PAGE 6

44. DISPOSITION - Self-explanatory.
45. THRIFT - Does he take an interest in your equipment and materials?
46. PRODUCT, QUALITY - Self-explanatory.
48. PRODUCTION, QUANTITY - What is his percentage of production as against your expectations?
50. JOB INTEREST - This refers to his job and employment satisfaction.
53. STUDENT WHILE EMPLOYED - Does he do things that lead you to believe he is a real student?
54. FAMILY RELATIONS - Some of these may be the cause of his downfall.
55. FINANCIAL - What is his financial status to your knowledge?

INSTRUCTIONS - PAGE 7

56. PHYSICAL - Self-explanatory.
58. COURAGE - Self-explanatory.
59. MORALE - Your general impression while he is on the job and at home.
60. HONESTY - YOUR ESTIMATE - As honesty is an indefinite quantity, let us consider the employee on the basis of his factory responsibility while under your employment.
62. PROMOTIONAL MATERIAL - Is he or is he not?
65. APPRECIATION - Does he appreciate what you or others do for him, and does he continue to show appreciation?
67. JOB ORDERLINESS - Does he clean up his bench and machine? Does he leave the stock in good condition?
71. NEATNESS, PERSONAL - Self-explanatory.
72. OBSERVING - Would he notice corrections to be made on a blueprint before stock was actually used on job?

INSTRUCTIONS - PAGE 8 and 9PERSONAL PROGRESS HISTORY:

Using the present status of the case as a guide, check those items you feel have contributed to his separation - non-advancement - or advancement.

INSTRUCTIONS - PAGES 10 and 11

These pages are for the assistance of vocational departments where training is being carried on. Will you please check this very carefully, as your opinion is vital in the setting up of vocational courses?

"THANK YOU"



Appendix B  
EMPLOYEE RATING BOOK

The purpose of this study is to develop a more efficient system of:

- a. Employment selection
- b. Employee rating
- c. Employee training
- d. Pre-employment trade training
- e. Pre-employment counseling and guidance
- f. Pre-employment social development
- g. Pre-employment educational development

The study considers three groups of individuals:

- a. Separated from service
- b. Non-advanced in service
- c. Advanced within or out of service

Employee rating book page 1

- 3- CASE NO. . . . .
- 1- EMPLOYER NO. . . . .
- 2- INDUSTRY (Type) Please check.

- |                    |     |
|--------------------|-----|
| a-Fabrication      | ( ) |
| b-Assembly         | ( ) |
| c-Manufacturing    | ( ) |
| d-Heavy Metals     | ( ) |
| e-Precision Tools  | ( ) |
| f-Technical Equip. | ( ) |
| g-Transportation   | ( ) |
| h-Communication    | ( ) |
| i-Power            | ( ) |
| j-Construction     | ( ) |
| k-Service          | ( ) |
| l-. . . . .        | ( ) |

EMPLOYMENT OFFICER

- |         |     |
|---------|-----|
| a-Owner | ( ) |
|---------|-----|

- b-Superintendent ( )
- c-Personnel Manager ( )
- d-Foreman ( )
- e-. . . . . ( )
- f-. . . . . ( )

11- CASE CLASSIFICATION

- Advanced ( )
- Non-Advanced ( )
- Separated ( )

7- PRESENT JOB CLASSIFICATION

. . . . .

. . . . .

CASE STATUS                      DATE . . . . .

- a-Employed ( )
- b-On Relief ( )
- c-On Work Project ( )
- d-Retired ( )
- e-Deceased ( )
- f-Age ( )

EMPLOYEE-SELECTION METHOD

- a-Oral interview only ( )
- b-Trade Test, written ( )
- c-Trade Test, applied ( )
- d-Aptitude Test ( )
- e-Other tests ( )
- f-Link and Keeler Test ( )

Employee rating book page 2

SOURCE OF EMPLOYEE

- a-Other Employer ( )
- b-Trade Publication ( )
- c-Newspaper Advertisement ( )
- d-Private Employment Service ( )
- e-State Employment Service ( )
- f-Private Trade School ( )
- g-Public Trade School ( )
- h-High School Vocational Department ( )
- i-Recommendation of Company Official ( )
- j-Recommendation of Company Employee ( )
- k-Personal application ( )
- l-. . . . . ( )

INDICATE NUMBER OF PREVIOUS EMPLOYERS

10- APPRENTICESHIP

Trade ( ) Industrial Clerk ( )

a-Served with prior employer ( )  
 How long? . . . . .

b-Served in your employ ( )  
 How long? . . . . .

c-None ( )

INTELLIGENCE

High ( ) Medium ( ) Low ( )

EDUCATION

Grade school:

1, 2, 3, 4, 5, 6, 7, 8

High school:

9, 10, 11, 12

COURSES ELECTED:

Vocational ( ) Commercial ( )  
 Pre-College ( ) General ( )

College, 1, 2, 3, 4

Degrees . . . . .  
 Majors . . . . .  
 When . . . . .

TRADE SCHOOL COURSE AND LENGTH OF ATTENDANCE:

	<u>Years</u>	<u>When</u>
Auto. . . . .		
Cabinet . . . . .		
Electric . . . . .		
Machine . . . . .		
Radio 1 . . . . .		
Sheet Metal . . . . .		
Welding . . . . .		
Others . . . . .		
None . . . . .		

Employee rating book page 3

## PERSONAL CHARACTERISTICS

Please check one or more in each numbered item:

- 12- Personality  
 Aggressive ( ) Dynamic ( ) Congenial ( )  
 Phlegmatic ( ) Negative ( )
- 14- Cooperation  
 Unsparing ( ) Satisfactory ( ) Indifferent ( )  
 Poor ( )
- 15- Ambition  
 Strong ( ) Fair ( ) Weak ( ) Lacking ( )  
 Over Developed ( )
- 16- Initiative  
 Strong ( ) Fair ( ) Weak ( ) Lacking ( )  
 Over ( ) Self-starting ( )
- 17- Punctuality - Job Station:  
 Yes ( ) No ( )
- 18- Application  
 Energetic ( ) Steady ( ) Flighty ( ) Lazy ( )
- 20- Progress  
 Superior ( ) Average ( ) Slow ( ) None ( )
- 21- Courteous  
 Yes ( ) No ( )

Employee rating book page 4

## PERSONAL CHARACTERISTICS (continued)

- 22- Energetic  
 Yes ( ) No ( )
- 23- Tactful  
 Yes ( ) No ( )
- 24- Leadership Qualities  
 Determined ( ) Decisive ( ) Resolute ( )  
 Persistent ( ) Organizing Ability ( )
- 26- Stability, Job  
 Constant ( ) Variable ( ) Lacking ( )  
 Impulsive ( )

- 27- Capability on Job  
Has ( ) Has Not ( )
- 28- Adaptability to job  
Yes ( ) No ( )
- 29- Adaptability to job environment  
Yes ( ) No ( )
- 30- Thoroughness on Job  
Excellent ( ) Good ( ) Slipshod ( )  
Neglectful ( )
- 31- Flexibility--Easily adapted to new situations  
Yes ( ) No ( )

Employee rating book page 5

PERSONAL CHARACTERISTICS (continued)

- 32- Creative Ability  
Of value to industry ( ) Employees ( )  
Consumer ( )
- 33- Occupational Versatility  
Has ( ) Has not ( )
- 34- Speed--Production  
Rapid ( ) Moderate ( ) Sluggish ( )
- 36- Accuracy on Job  
Yes ( ) No ( )
- 38- Reliability  
Exceptional ( ) Responsible ( ) Irregular ( )  
Unreliable ( )
- 40- Judgment, job  
Superior ( ) Reliable ( ) Questionable ( )  
Defective ( )
- 41- Judgment, social  
Superior ( ) Dependable ( ) Poor ( )
- 42- Conduct, job  
Irreproachable ( ) Honorable ( ) Mind own  
business ( ) Troublesome ( ) Dishonorable ( )
- 43- Conduct, social  
Irreproachable ( ) Honorable ( )  
Troublesome ( ) Dishonorable ( )

Employee rating book page 6

## PERSONAL CHARACTERISTICS (continued)

- 44- Disposition  
 Cheery ( ) Even ( ) Disagreeable ( )  
 Quarrelsome ( ) Patient ( ) Flighty ( )  
 Moody ( )
- 45- Thrift--(Employer's materials and equipment)  
 Conservative ( ) Wasteful ( )
- 46- Product, quality  
 High-grade ( ) Marketable ( ) Passable ( )  
 Discard ( )
- 48- Production, quantity  
 High ( ) Medium ( ) Low ( )
- 50- Job interest  
 Enthusiastic ( ) Average ( ) Low ( ) None ( )  
 Clock-watcher ( )
- 53- Student while employed  
 Night school ( ) Correspondence school ( )  
 Seeks new ideas ( )
- 54- Family relations  
 Excellent ( ) Satisfactory ( ) Indifferent ( )  
 Neglectful ( ) Married ( ) Single ( )  
 Divorced ( ) Widower ( )
- 55- Financial  
 Sound ( ) Insecure ( ) Extravagant ( )

Employee rating book page 7

## PERSONAL CHARACTERISTICS (continued)

- 56- Physical  
 Excellent ( ) Good ( ) Fair ( ) Poor ( )
- 58- Courage  
 Extrovert ( ) Introvert ( ) Stamina: High ( )  
 Low ( )
- 59- Morale  
 Excellent ( ) Fair ( ) Poor ( )

- 60- Honesty--Your estimate
 

	<u>Yes</u>	<u>No</u>
a- Loyalty to firm . . . . .	.	.
b- Truthful. . . . .	.	.
c- Falsify company's records . . . . .	.	.
d- Can be trusted with com- pany's property . . . . .	.	.
  
- 62- Promotional Material
 

Yes ( )	No ( )
---------	--------
  
- 65- Appreciation
 

Sense of: Yes ( )	No ( )
-------------------	--------
  
- 67- Job Orderliness
 

Yes ( )	No ( )
---------	--------
  
- 71- Neatness, personal
 

Yes ( )	No ( )
---------	--------
  
- 72- Observing
 

Yes ( )	No ( )
---------	--------

Employee rating book page 8

PERSONAL PROGRESS HISTORY

- ( ) Separation )
- ( ) Non-Advancement ) due to:
- ( ) Advancement )
  
- 63- ( ) Business ( ) Lack of ( ) Increase
- 64- ( ) Opportunity ( ) Lack of
- 66- ( ) Training ( ) Lack of
- 68- ( ) Achievement ( ) Lack of
- 69- ( ) Skill ( ) Lack of
- 70- ( ) Education ( ) Lack of
- 74- ( ) Job created
- 76- ( ) Coercion
- 78- ( ) Resourcefulness ( ) Lack of
- 79- ( ) Over confidence
- 80- ( ) Misfit
- 81- ( ) Hobbies overdeveloped
- 82- ( ) Agitator
- 84- ( ) Personal difference
- 85- ( ) Outside Interests--overdeveloped
- 86- ( ) Indifference
- 87- ( ) Ego overdeveloped
- 88- ( ) Slipshod
- 90- ( ) Sluggish

- 92- ( ) Carelessness--absent minded  
 93- ( ) Carelessness--mindful

Employee rating book page 9

PERSONAL PROGRESS HISTORY (continued)

- 94- ( ) Slowness--general  
 96- ( ) Insubordination  
 98- ( ) Absenteeism  
 100- ( ) Trouble-maker  
 102- ( ) Drinking  
 104- ( ) Violation of rules  
 106- ( ) Misconduct  
 108- ( ) Dishonesty  
 110- ( ) Loafing  
 111- ( ) Dissatisfaction, job  
 112- ( ) Dissatisfaction, environment  
 113- ( ) Tolerance ( ) Lack of  
 114- ( ) Lateness, habitual  
 116- ( ) Ability to follow instructions ( ) Lack of  
 118- ( ) . . . . .  
 120- ( ) . . . . .  
 122- ( ) . . . . .  
 124- ( ) . . . . .

Employee rating book page 10

EMPLOYER COMMENTS AND SUGGESTED CORRECTIVE MEASURES

Separated ( )                  Non-Advancement ( )

Employment Officer:

Your comments and suggestive corrective measures relative to this case are of great value in the final analysis and summary, viz:

1. Improved method of training in high school vocational departments in such subjects as:  
    Mathematics ( )    Mechanical drawing ( )  
    Science ( )    English ( ) . . . . . ( )  
    . . . . . ( )
2. Improved method of general training in grade and secondary schools.
3. More intense vocational and social counseling in grade and secondary schools.
4. An improved system of vocational and social counseling maintained within the plant.



5. Closer cooperation between school and home.
6. Closer cooperation between employer and home.
7. Closer cooperation between employer and school.
8. More influential individuals taking a personal interest in him.
9. Required to continue education while employed.
10. More selective employment methods.
11. Improved method of vocational student selection.
12. Consulted physician.
13. Consulted psychiatrist.
14. Other reasons
15. Comments

ADVANCEMENT ( )

Your evaluation of this employee, if not in the trades, who has made outstanding progress:

## Appendix C

## CONFERENCE GROUP OF EMPLOYERS

- Mr. Emil Kudrna, manager, J. C. Penney Store, Alameda, California
- Mr. Jay Wynestock, merchant tailor, Jay Wynestock Tailor, Oakland, California
- Mr. W. A. Munson, assistant personnel manager, Montgomery Ward and Company, Oakland, California
- Mr. Winfield P. Rue, district manager, Field-Ernst Envelope Company, San Francisco, California
- Mr. Harry Dull, vice-president, Moore Machinery Company, San Francisco, California
- Mr. A. P. Bareilles, secretary and assistant manager, Alameda Steam Laundry, Alameda, California
- Mr. Dennis Cronin, assistant cashier, Bank of America, Alameda, California
- Mr. Cliff Levo, assistant credit manager, Hills Bros., Coffee Company, San Francisco, California
- Mr. A. B. Moffitt, sales manager, Associated Oil Company, Alameda, California

## Appendix D

EMPLOYERS WHOSE SUGGESTIONS WERE FOLLOWED IN SETTING UP  
MECHANICAL METHODS FOR GATHERING DATA

F. B. Drake, president, Johnson Gear Works, Berkeley,  
California

Horace Phillips, plant superintendent, Link Belt Com-  
pany, San Francisco, California

William G. Paden, superintendent, Alameda City Schools,  
Alameda, California

Percy Williams, superintendent, Nordstrom Valve Company,  
Oakland, California

J. M. Fitzgerald, superintendent, Atlas Imperial Deisel  
Engine Company, Oakland, California

E. L. Oliver, vice-president, Oliver United Filters  
Company, Oakland, California

Dr. Davidson, personnel manager, Hall-Scott Motor Com-  
pany, Oakland, California

Mr. MacNabb, general manager, E.K. Wood Lumber Company,  
Oakland, California

S. Edwards, general manager, Industrial Steel Treating  
Company, Oakland, California

# SOURCE FROM WHICH EMPLOYEE RATINGS WERE OBTAINED

As of July 24 1940

100 Advanced--100 Non-Advanced--100 Separated

NO.	FIRM	TYPE OF INDUSTRY	EMPLOYMENT OFFICER	NO. CASES SUB.			TOTAL	PROJ. HRS. GATHERING DATA	EMP. HRS. RATING EMPLOYEES	TOTAL HOURS
				SEP.	NON-ADV.	ADV.				
				1	2	3	4	5	6	7
1	Indust Steel Treating Co	Service (Technical)	Owner	2	1	1	4	6.00	1.00	7.00
2	Borrmann Steel Co	Heavy Metal (Sales)	Supt	1	1	1	3	4.30	.45	5.15
3	S.F. Bay Airdrome	Transportation	Supt	1	1	1	3	4.30	.45	5.15
4	C.W. Marwedel Co	Metals (Sales)	Owner-manager	1	1	1	3	4.30	.45	5.15
5	Little Giant Machine Co.	Assembly (Wash Mach)	Owner	2	1	1	4	6.00	1.00	7.00
6	Snider Bros Garage	Service (Mechanical)	Owner	1	1	1	3	4.30	.45	5.15
7	Baker Mfg Co	Manufacturing	Owner	3	2	2	7	10.30	1.45	12.15
8	E.K. Wood Lumber Co	Manufacturing	Manager- personnel	3	2	3	8	12.00	2.00	14.00
9	Union Diesel Engine Co.	Heavy- Metal Mfg.	Personnel Manager	2	2	2	6	9.00	1.30	10.30
10	Joe Kanczy's Serv. Station	Auto Service	Owner	0	1	0	1	1.30	.45	1.45
11	Alameda Bd. of Ed.	Education	Superintendent	0	1	2	3	4.30	.45	5.15
12	Merco-Nordstrom Valve Co.	Heavy Metal Mfg.	Personnel Manager	3	3	3	9	13.30	2.15	15.45
13	Western Electric	Manufacturing	Personnel Manager	7	6	5	18	27.00	4.30	31.30
14	Earl Pierson	Auto Service (Mech)	Owner	2	3	1	6	9.00	1.30	10.30
15	Standard Stations,	Auto Service	Personnel Manager	9	5	2	16	24.00	4.00	28.00
16	General Electric Co.	Manufacturing	Personnel Manager	9	7	8	24	36.00	6.00	42.00
17	Westinghouse Electric	Assembly	Personnel Manager	4	3	3	10	15.00	2.30	17.30
18	Boyle Mfg. Co.	Manufacturing	Personnel Manager	4	3	3	10	15.00	2.30	17.30
19	California Wire Cloth	Manufacturing	Superintendent	0	3	3	6	9.00	1.30	10.30
20	Government Island	Fabrication & Assem.	Personnel Manager	4	4	4	12	18.00	3.00	21.00
21	Victor Equipment Co.	Manufacturing	Superintendent	3	3	3	9	13.30	2.15	15.45
22	Bowman Air Service	Transportation	Owner	3	1	1	5	7.30	1.15	8.45
23	Bethlehem Steel Co.	Fabrication	Superintendent	2	1	1	4	6.00	1.00	7.00
24	Forster Plumbing	Construction	Owner	0	2	0	2	3.00	.30	3.30
25	Park Street Garage	Auto Serv. Mech.	Owner	1	1	1	3	4.30	.45	5.15
26	Pacific Gas & Electric	Service	Superintendent	0	1	0	1	1.30	.15	1.45
27	Oliver Filters, Inc.,	Heavy Metals	Personnel Manager	2	2	3	7	10.30	.45	12.15
28	White Bros. Hardwood Co.	Manufacturing	Superintendent	3	3	4	10	15.00	2.30	17.30
29	Chevrolet Motor Co.	Assembly	Personnel Manager	6	6	6	18	27.00	4.30	31.30
30	Oakland Air Port	Transportation	Superintendent	2	3	4	9	13.30	2.15	15.45
31	Johnson Gear Company	Manufacturing	Superintendent	1	3	3	7	10.30	1.45	12.15
32	East Bay Utility	Service	Superintendent	2	3	2	7	10.30	1.45	12.15
33	Mann Mfg. Co.	Manufacturing	Owner	0	3	3	6	9.00	1.30	10.30
34	Dept. of Adult Education	Education	Director	0	17		17	25.30	4.15	29.45
35	Hall-Scott Motor Car Co.	Manufacturing	Personnel Manager	3	0	6	9	13.30	2.15	15.45
36	Angelo Ratto	Auto Service	Owner	2	0	3	5	7.30	1.15	8.45
37	Forsterer Mfg. Co.	Manufacturing	Owner	3	0	1	4	6.00	1.00	7.00
38	Link Belt Company	Manufacturing	Superintendent	2	0	0	2	3.00	.30	3.30
39	Municipal Elec. Lite Plant	Service	Dept. Manager	1	0	4	5	7.30	1.15	8.45
40	Apex Rotarex	Manufacturing	Superintendent	1	0	0	1	1.30	.15	1.45
41	A. M. Castle Co.	Heavy metal Mfg.	Personnel Manager	1	0	0	1	1.30	.15	1.45
42	L. A. Young	Manufacturing	Superintendent	1	0	0	1	1.30	.15	1.45
43	Atlas Diesel Engine Co.	Heavy metal Mfg.	Superintendent	2	0	0	2	3.00	.30	3.30
44	Bill Ward	Auto Service	Owner	1	0	2	3	4.30	.45	5.15
45	Employer No. 35	Assembly	Owner	0	0	6	6	9.00	1.30	10.30
46				100	100	100	300	450.00	75.00	525.00

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Leadership Ability pp. 297-309

"Ability to get the team behind him." p. 297

Job Interest p. 299

Responsibilities (assumption of) p. 381

Morale p. 304 "State of Mind"

"Good or poor morale can only be recognized by the way that 'it comes out in the wash.'" p. 307

"Leadership is a managerial quality that everybody knows when they see it, but that it is hard to define."

1. Ability to plan ahead.

2. Ability to get right men to work for them and can keep them.

3. They always seem to have natural followers.

Interest p. 315 "An interested man is 'alive on the job.'" p. 315

Cooperation p. 383

"Helping the other fellow out when we do not have to." p. 383

"The greater the cooperation, the lower the costs of plant operation." p. 392

"Ability to follow orders."

Means one's ability to clearly understand the intent of the order and then to use his head to advantage and not "obeying orders and breaking owners." p. 410

Carelessness (or apparent absent-mindedness) p. 439

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"Personnel work is an integral and inseparable part of management interwoven into all of the efforts and activities of the production and sales departments and the offices." p. 279

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