A STUDY OF PERSONALITY TRAITS IN RELATION TO JOB INSTABILITY OF INMATES IN THE OHIO PENITENTIARY

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CURRICULUM STUDIORUM

Stanley J. Blackledge was born January 18, 1920, in Jeannette, Pennsylvania. He received the Bachelor of Arts degree in Psychology from the University of Dayton, Dayton, Ohio, in 1949. He received the Master of Arts degree in Clinical Psychology from Ohio University, Athens, Ohio, in 1952. The title of his thesis was A History of the Classifications of Mental Disorders.

TABLE OF CONTENTS

LIST OF TABLES

Table page

INTRODUCTION

At the Ohio Penitentiary in Columbus, Ohio, it has been observed and corroborated by official records that a minority of the inmates seek and obtain frequent job changes while the majority of the inmates are much more stable in this regard. The resulting labor turnover precipitates a number of problems which affect the administrators of the prison as well as the inmate body, both individually and collectively. A description of these problems along with the rationale for the approach followed in this study will be discussed in Chapter One.

Labor turnover has been studied extensively in private (i.e. non-penal) industry for many years. Most of the research has been directed toward an understanding of the personal, environmental, social, and economic factors associated with labor turnover. However, most of the presumed causal factors which have been associated with the phenomenon were held constant by the nature of the milieu in which this research project was carried on.

This study attempted to identify personality traits by the use of a personality inventory which was used as a means of discriminating between those inmates having a history of job instability in the institution as compared with those inmates having no such history. No reference in

the literature was found in which this manner of investigating labor turnover in either penal or private industry was found.

Chapter Two will be devoted to a review of the literature. The review is not intended to be exhaustive since most of the material does not pertain directly to the problems found in the Ohio Penitentiary industries. The survey is intended as an introduction to the frames of reference in which the problem has been treated in the past. However, a few studies which cast some doubt on the validity and, consequently, on the usefulness of previous studies of the causes of labor turnover will be cited in this chapter.

The method of the selection of the subjects, the test used, the setting in which the tests were given and other methodological matters will be discussed in Chapter Three.

The analysis of the data, a discussion of the results, and suggestions for further research will be given in Chapter Four. A summary and conclusion will also be included.

CHAPTER I

THE PROBLEM OF LABOR TURNOVER IN THE OHIO PENITENTIARY

With few exceptions, all inmates entering the Ohio Penitentiary who are mentally and physically capable of working are assigned to a job in one of the production industries. These industries include the textile mills and the tag shop. This placement is handled by the classification committee and it is made at the completion of the orientation program during the fourth week of incarceration. The initial job placement is a provisional one which the inmate is expected to hold for at least a six month probationary period. At the end of that time, if his work and conduct records are satisfactory, he is given consideration for any other available job placement that he is capable of doing or learning to do. It is expected that the inmate will stay on all subsequent job placements for the customary period of six months before requesting consideration for another job change.

The majority of the inmates present no problem in this respect since they make a satisfactory adjustment. But over the years, the administration has had to contend with a minority of inmates who seem incapable of persevering on any job placement. They seek and obtain frequent job changes. The resulting movement from job to job is accepted and

tolerated rather than condoned by the prison officials as a means of minimizing the tension which prevails in this particular institution.

The maintenance of security and order are the primary objectives of the officials at the penitentiary. Because of the crowded conditions and the lack of an adequate staff in training and numbers, it is the present policy of the institution to acquiesce to the inmates' requests for job transfers. To take repressive or disciplinary measures to control this movement might result in serious disturbances.

1. Labor Turnover and the Administration.

There are a number of problems caused by labor turnover which affect the prison administration in an adverse manner. Three of them, however, are of greater importance. These problems are the financial loss which accrues to the penitentiary and indirectly to the state; the increase in administrative duties; and the weakening of the security of the community. These will be discussed briefly in the order mentioned.

Labor turnover undoubtedly causes a rise in expenditures and a consequent loss of revenue since it slows down production. This is especially true of the textile mills in the prison which produce cotton and wollen products for all

the state institutions. The slowing down of production, the spoilage of material and, on some occasions, the shutting down of machinery as a result of labor turnover, all contribute to this loss of money.

A bulletin[1] published by the United States Federal Government places all increased production losses as a result of labor turnover under the three categories of increased operating expenses, production loss and administrative costs. But some authorities[2] feel that so many elements enter into the total cost of turnover that it is impossible even to approximate the total cost with any degree of accuracy.

A second problem caused by excessive job changes is the increase in administrative duties. A captain of the guard force and an assistant are assigned to the full time job of handling job transfers to new assignments. All guards and other civilian employees, especially the shop superintendents, must be notified of all such changes. New schedules for meals, for recreational periods and other activities have to be arranged; and several other clerical

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1 U.S. Employment Service, Suggestions for Control of Turnover and Absenteeism, U.S. Printing Office, October, 1951, p. 6-8.

2 Walter Dill Scott and Robert C. Clothier, Personnel Management, Principles, Practices, and Point of View, Chicago, Shaw, 1923, p. 58.

and administrative steps must be taken to ensure the smooth functioning of the institution.

A third problem closely related to the last one mentioned has to do with security. The more movement within a penitentiary, the greater the possibility for an incident to arise. The accidental or careless placement in the same shop of men known to have too much enmity toward or too great a friendship for each other can lead to trouble. It is believed that the less occupational movement that takes place, the better the surveillance that can be maintained.

2. Labor Turnover and the Inmate.

The individual inmate with a history of job instability is also adversely affected in a number of ways. Four of these will be discussed briefly.

While idle between job assignments, the inmate suffers a loss of income for himself as well as for his dependents. Although the hourly rate is relatively low, (four cents per hour for a man with no dependents, eight and a half cents per hour for a man with dependents) the prisoner needs some money to buy personal articles which are not supplied by the state. For those with dependents there is a compulsory savings plan whereby part of the inmate's pay goes to his family or parents. In some cases, the dependents, if ineligible for community help may be in desperate need of

whatever financial assistance they can get from the prisoner.

An unstable work history while incarcerated may result in the Pardons and Parole Board extending an inmate's time rather than in granting him a parole. A complete history of an inmate's work record is evaluated by the Board before the man is seen for his parole hearing. Members of the Board have told the writer that they consider a history of "job hopping" as a sign of "poor adjustment" and that such behaviour may have some bearing on their disposition of the case. This attitude on the part of the Board members is common knowledge to the inmate body.

As is true in industry everywhere, labor turnover in a penal setting may result in a generalized lowering of morale. But this is especially true in a prison where the appearance of new men often necessitates a period of readjustment for everyone in that particular work area. The newcomer usually has to be broken in on the job and this responsibility often falls on the shoulders of other inmates. The friction and dissention which may develop is communicated not only to the other inmates but to the civilian help as well.

In describing the atypical conditions in prison industry, Robinson[3] points out a number of facts which, under

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3 Louis N. Robinson, Should Prisoners Work? Chicago, Winston, 1931, p. 136-137.

the best conditions would affect the level of morale. Among these are the low wages, the poor working conditions, the inadequate supervision and, perhaps most important of all, the calibre of the men who wind up in penitentiaries. To their already existing resentment, their negative attitudes and low motivation, the high turnover of men in the shops would tend to make a bad situation even worse.

Pertaining to this problem in civilian industry, Scott[4] expresses the belief that the mental attitudes of all the employees are affected by turnover since interest, morale and efficiency are all undermined to some extent by it.

But perhaps the most unfortunate result of job mobility is that it may start or perpetuate poor work habits which the inmate may carry over into his life in free society. This tendency toward job instability on the streets as well as in penal institutions has been studied and commented on by a number of writers in the field of penology.

A study was made in Chicago[5] in 1934, to determine whether or not there was any difference in job turnover of those convicted of crime as compared with those who had not

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4 Walter Dill Scott, Robert T. Clothier and William R. Spiegel, Personnel Management, Principles, Practices, and Point of View, New York, McGraw-Hill, 1949, p. 460.

5 Ray Mars Simpson, "Occupational Instability of Penitentiary Inmates", in The Journal of Abnormal and Social Psychology, April-June, 1934, Vol. 29, No. 1, p. 86.

been convicted of crime. The work records of over 200 randomly selected Illinois State Penitentiary inmates and 300 employees of a large industrial plant in Chicago were compared. They were equated for age, sex, and educational status. It was found that prisoners had not remained on jobs as long as free industrial employees.

The Gluecks[6] studied the careers of 510 men after their release from the Massachusetts Reformatory during the years 1911 to 1922. They state that almost half of the men were industrial failures in the post-parole period. This was attributed in large part to laziness, drunkenness and wanderlust.

A recent evaluation[7] of the industrial training programs in penal institutions indicates that no great success has been achieved in any better understanding or correction of the unstable work habits of many inmates.

> Prison industries have, generally speaking been a dismal failure in realizing their fundamental purpose, that of fitting the released prisoner to take his place in society as an industrious citizen by developing in him firm habits of work and self-support and giving him the knowledge and skill of a trade.

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6 Sheldon Glueck and Eleanor Glueck, 500 Criminal Careers, New York, Knopf, 1930, p. 202.

7 The American Prison Association, A Manual of Correctional Standards, (no city), (no publisher), 1954, p. 275.

Johnson,[8] writing in much the same vein, emphasized the belief that many prisoners have held many jobs for short periods of time. He believes that if prisoners were trained in useful work habits and skills, perhaps there would be a decrease in the recidivism rate. He adds:

> The social conditioning from which job instability coupled with emotional immaturity and lack of adequate social values tends to develop into criminal action for both the first offender and the repeater.

The theme in these two citations is a common one in the literature in the field of corrections. The concern with the problem of rehabilitation through improved work habits, persistence on the job and vocational training occurs with great regularity. It is probably due to the fact that prisoners are thought to be inefficient and disinterested workers whom most employers would not consider hiring.[9]

Although it is believed that prison industries are failures as vocational training and rehabilitation centers, at least one optimistic note has been sounded by Flynn.[10] He states that during World War II, it was found to the

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8 Carl E. Johnson, "Prison Industries", in Encyclopedia of Criminology, Vernon C. Branham and Samuel B. Kutash, (ed.), New York, Philosophical Library, 1949, p. 352.

9 Louis N. Robinson, Should Prisoners Work?, Chicago, Winston, 1931, p. 136.

10 Frank T. Flynn, "Employment and Labor", in Paul W. Tappan, (ed.), Contemporary Corrections, New York, McGraw-Hill, 1951, p. 243.

surprise of many experts in the field that prisoners were willing and able to work on a basis of productive efficiency comparable to that of non-prisoners.

It should be noted at this point that this study is not directly concerned with the problems associated with prison industry nor with the problem of rehabilitation of criminals as such. The study attempted only to identify personality traits as measured by a self-rating questionnaire which may reveal differences in personality structure between the stable and the unstable workers in a particular institution. The findings may or may not have practical or theoretical implications for further research. This topic will be discussed further in the summary and conclusions section of the thesis.

In his book concerning research efforts dealing with labor turnover, Parnes[11] states that the psychological approach has not been utilized to any great extent. He thinks that this means of looking into the problem might yield positive findings. Parnes states:

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11 Herbert S. Parnes, Research on Labor Mobility, An Appraisal of Research Findings in the United States, Bulletin No. 65, Social Science Research Council, New York, 1954, p.194.

> Past attempts to determine the characteristics of workers associated with mobility have focused on readily ascertainable factors such as age, sex, marital status and occupation. These, however, appear to account for only a small portion of the total variation in mobility among individuals. Thus, either other characteristics are more influential, or the incidence of mobility among workers must be largely fortuitous. The latter hypothesis is suspect, however, because most of the job changes in any year are accounted for by a small minority of workers, and because fragmentary evidence indicates that it is largely the same group of workers who move among jobs year after year. There is strong suggestion, therefore, that much of the variation in mobility among workers is attributable to traits or to external circumstances that are only partially, if at all, related to characteristics that can be ascertained from personal records or from enumerated surveys. If the personal determinants of mobility are to be ascertained, employment histories of workers must be analyzed with reference to individual differences in personality traits, aptitudes, interests, values, intelligence and occupational aspirations and by use of controls that will hold impersonal factors constant.
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> It is doubtful that a random sample of the labor force could be persuaded to sacrifice the time that (interviewing and testing) would require ... This would be a limited approach, to be sure, but it might enable research teams of psychologists and economists to begin to examine some unexplored questions about the determinants of labor mobility and the motivations of individuals in making specific job changes.

This endeavour is an attempt to examine at least one part of the unexplored region of the determinants of labor mobility mentioned by Parnes.

In carrying on this research project, the writer was fortunate in being able to work with a captive audience which was most cooperative. The advantages of using convicts as experimental subjects are readily apparent.

Leiter[12] mentions several of them: (a) the subjects are available for long periods of time; (b) their motivation is high because of their vested self-interest; (c) a great deal of information regarding the subjects' past and present behavior can be obtained; and, (d) the subjects' future adjustment in "free" society can be obtained for the post-parole period.

Two other reasons why convicts are good research subjects not mentioned above are that in a penal setting many environmental variables can be held constant and subject and environmental variables can be easily manipulated.

In 1922, a penologist,[13] recognizing the unique opportunity in such a community for research, suggested that prisons should be used as laboratories to test out theories about vocational training and education.

In attempting to account for the willingness of prisoners to cooperate in these matters, Ohlin[14] suggests that they are looking for a better understanding of themselves and their careers. Curiosity, an interest in a new

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12 R.G. Leiter, "The Place of Research in Correctional Psychology", in the Manual of Applied Correctional Psychology, DeWitt E. Sell, (ed.), Ohio State Reformatory Press, Mansfield, 1955.

13 Louis N. Robinson, Penology in the United States, Philadelphia, Winston, 1922, p. 177.

14 Lloyd E. Ohlin, Sociology and the Field of Corrections, New York, Russell Sage Foundation, 1956, p. 11.

activity, or simply a desire to remain occupied are also mentioned as possible explanations. However, other theories may be more plausible.

At the Ohio Penitentiary where several other psychological and medical research projects were being carried on simultaneously with that of the writer, it is a matter of policy that the warden and the members of the Pardons and Parole Board will be notified of the names of all the men participating in such activities. Although no tangible rewards or promises are made to those who volunteer, it is assumed without a shred of evidence by officials and inmates alike, that the act of volunteering is in some mysterious way an indication of progress towards the goal of "rehabilitation". Individual subjects voice various reasons for offering their services but it is difficult to know what the true determinants are. The investigation of the motives of these men would be a challenging research project in itself.

Many studies of job mobility have been made with civilian populations. It has been found that such factors as wages, transportation, housing, marital discord, recreational and educational facilities, location of schools, military conscription, and many other social, economic, environmental and personal factors played some part in accounting for, or were associated with, mobility.

In this study all of these factors were held constant by the very nature of the setting in which the research was carried on. Regardless of the job assignment, all inmates at the Ohio Penitentiary receive the same rate of pay, enjoy the same recreational and educational facilities, have comparable living accommodations, have no transportation problems and are not inconvenienced by the threat of military conscription.

Because most of the variables identified with job mobility by previous studies were held constant, it was postulated that an investigation of personality traits by the use of an inventory would reveal differences in personality structure between the experimental and the control groups. These differences would then be associated with the behavior characterized by job mobility as defined in this study.

In order to test this thesis, the following null hypothesis was formulated:

> There are no personality trait differences to be found in inmates working in a penal institution who change jobs frequently as compared with those inmates who do not change jobs frequently.

The term frequent job changes, as used in this study, refers to three or more job changes, initiated by the inmate during the first twelve months of incarceration after the one month orientation period at the Ohio Penitentiary. The term infrequent job changes refers to the absence of any job

changes during an equivalent period of time at the same institution. The personality traits to be measured are those tapped by the Cattell Sixteen Personality Factor Questionnaire. The personality traits encompassed by this instrument are given in Table VI.

CHAPTER II

SURVEY OF THE LITERATURE

The majority of the references cited in this chapter have to do with the investigation of the different facets of the labor turnover phenomenon in private industry. This may seem inappropriate since the subjects used in this study came from a prison population. The reason for this oblique approach is that almost all of the research has been confined to private industry. Since there are so many economic and motivational differences between conditions in private industry as compared with those in a penal community, it is recognized that any generalization from one group to the other would be tenuous at best.

The first section of this chapter deals with the different ways of describing and classifying kinds of turnover. An operational definition of the term as used in this study will be given.

Sections Two and Three will consist of a description of the subjective and objective approaches to the study of labor turnover. Although both are entwined historically and both have been treated by the same authors in a number of instances, an attempt will be made to discuss them under separate headings for illustrative purposes.

Section Four will be devoted to the presentation of findings of several studies which cast some doubt on the reliability of much of the data obtained from the investigations mentioned in sections two and three of this chapter. Because of the questionable worth of these data in understanding labor turnover, the method of investigation of the problem followed by the writer may be a more rewarding means of obtaining insight into the phenomenon.

1. Types of Labor Turnover.

The terms "labor turnover" and "labor mobility" may have specific meanings according to the usage and the definitions of the author but these terms along with "labor shifting" and "labor change" have been used interchangeably.[1]

One author[2] states that there is little agreement as to what "labor turnover" is but he states that it can be defined as the influx and exit of employees into and out of the working force of an organization within a specified period of time. "Labor mobility", on the other hand, is defined as the movement of masses of people in industry.

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1 Paul Frederick Brissenden and Emil Frankel, Labor Turnover and Industry, New York, MacMillan, 1922, p. 7-8.

2 Gordon Watkins et al, The Management of Personnel and Labor Relations, New York, McGraw-Hill, 1950, p. 343-344.

especially as such movement affects society. The author[3] subdivides the former term into separations that are avoidable and those that are unavoidable. Unavoidable separations are those over which the company has no control, such as those due to sickness, death, business cycles, etc.

Dankert[4] mentions two kinds of mobility, geographical and occupational. Geographical mobility relates to the willingness and ability of workers to move to new job locations; occupational mobility has to do with the willingness and ability of workers to change occupations.

In tracing the occupational histories of workers, some authors[5,6] divide all job changes into horizontal and vertical movements. Horizontal movements, according to Miller and Form, include all job movements without regard for their socio-economic classification while vertical movements refer to job movements between socio-economic levels. Vertical mobility can be either upward or downward on the socio-economic scale. The former term includes all transfers and all movements from one company to another in the same or in different communities.

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3 Gordon Watkins et al, op. cit., p. 347.

4 Clyde E. Dankert, An Introduction to Labor, New York, Prentice-Hall, 1954, p. 45.

5 Pitirim Sorokin, Social Mobility, New York, Harper, 1927, p. 133.

6 Delbert C. Miller and William H. Form, Industrial Sociology, New York, Harper, 1951, p. 668-669.

Whitehill[7] differentiates between external and internal mobility. The former term refers to the movement of people into and out of any particular company or organization while the latter term refers to the shifting around of employees from job to job within a company or organization. It also includes transfers, promotions and demotions.

In this study, the terms "labor turnover", "labor mobility", and "job instability" are used synonymously. They refer to the record of the behavior of those inmates which reveals a history of three or more job transfers within a particular twelve month period of time. These changes have been made on the incentive of the subjects themselves. The status of the jobs as perceived by the inmates or by the officials is not considered. Transfers, either for disciplinary reasons or for the convenience of the institution were not considered in this study since they were not made at the request of the inmates themselves.

2. Subjective Causes of Labor Turnover.

The literature having to do with the causes of labor turnover does not lend itself to any clear-cut division or classification. Roughly speaking, however, one may divide

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7 Arthur M. Whitehill, Personnel Relations, The Human Aspects of Administration, New York, McGraw-Hill, 1955, p. 183.

the literature into two parts. The first part will be concerned with the assessment of the subjective inadequacies or failures of the employees which resulted in a high rate of labor turnover. The second part of the literature deals with the more objective and impersonal causes of labor turnover such as economic and environmental conditions. From a chronological point of view, the earlier studies were concerned mostly with the evaluation of the subjective causes of turnover while the more recent ones show a greater interest in the impersonal causes of turnover. However, many authors dealt with both approaches to the investigation and understanding of the problem.

Writers taking a subjective approach in their hunt for causal factors used a variety of terms to explain or to describe those characteristics. Among these terms the following may well be representative of those more commonly used: affective condition, unadaptability, inherent instability, problem employee, mental condition, emotional maladjustment, weakness of moral character, tendencies to neurotic instability, and lack of self-discipline. It is readily apparent that these terms are extremely vague and all but meaningless since they were inadequately defined or not defined at all.

A brief statement giving the sources of these terms in relation to job turnover and the context in which they were used will be given.

Pruette and Fryer,[8] in discussing vocational maladjustment, state that it is the "affective condition" rather than the "intellectual factor" which determines the success or failure a person will experience on a job.

The "inadaptability" of workers often resulted in their being transferred. According to Slichter[9] transfers were equivalent to turnover or discharges because they were the result of men failing to make good on the job. Such cases, he felt, represented errors in hiring procedures.

Brissenden[10] recognized the fact that there are a number of reasons for labor turnover. But he mentions the fact that some men change jobs frequently, not because of wages or the work itself, but because of an "inherent instability". Persons of this sort, he believed, were unable to give any logical reason for their desire to change jobs.

Anderson,[11] one of the first psychiatrists to interest himself in the problems of business psychology, published his findings in 1929, following a four year study

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8 Lorine Pruette and Douglas Fryer, "Affective Factors in Vocational Maladjustment", in Mental Hygiene, Vol. 7, No. 1, January 1923, p. 102.

9 Sumner H. Slichter, The Turnover of Factory Labor, New York, Appleton, 1921, p. 7.

10 Paul Frederick Brissenden and Emil Frankel, Labor Turnover and Industry, New York, MacMillan, 1922, p. 97.

11 V.V. Anderson, Psychiatry in Industry, New York, Harper, 1929, p. 8.

of personnel problems in a large mercantile establishment in New York City. He states that 20% of all the employees studied were classified as "problem individuals" since they were considered as potential liabilities to any businessman. It was from this group that most of the transfers, lay-offs, and resignations came. In other words, they constituted the majority of work failures. The writer goes on to state[12] that the most important element in labor difficulties was in the "mental condition" of the workers which was responsible for their attitudes, habits and reactions.

In the often cited publication by Fisher and Hanna,[13] the authors state that their main thesis is that a "large part of vocational maladjustment and industrial unrest are but secondary to, and but a reflection of, emotional maladjustment". They add a warning note[14] to those interested in this area of research that the causes of labor turnover are subtle and involved and that any superficial attempts to establish them are apt to be misleading.

Even in more recent times, there has been a continued use of vague and general descriptive or pseudo-diagnostic terms as a means of accounting for job mobility.

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12 V.V. Anderson, op. cit., p. 6.

13 V.E. Fisher and Joseph V. Hanna, The Dissatisfied Worker, New York, MacMillan, 1931, p. vii.

14 Ibid., p. 217.

In 1952, an article appeared in the Harvard Business Review[15] in which the author lists a number of causes of labor turnover. Among those given are the following: "weakness of moral character", "incapacity for cooperation", and "the mental outlook in America which causes us to be wanderers".

Heron,[16] in a cross-validation study of personality and occupational adjustment, which pertains to a study of job satisfaction rather than turnover, refers to "tendencies to neurotic instability".

As a last example, Fear[17] in an article published in 1958, in one paragraph furnishes several descriptive but more or less meaningless terms to characterize the frequent job-changer. He states:

> Man job jumpers lack 'self-discipline', 'perseverance' and 'follow through'. Some of them are 'opportunists' and still others are 'not very stable emotionally'. At the very least, frequent job changers should alert the interviewer to the possible existence of 'serious shortcomings'.

In summarizing the excerpts just cited, the common thread in all of them is the use of vague, ambiguous and

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15 Gordon T. Bowden, "The Problem of Employee Turnover", Harvard Business Review, Vol. 30, No. 5, issue of September-October, 1952, p. 72-73.

16 Alastair Heron, "Personality and Occupational Adjustment: A Cross-Validation Study", in the Canadian Journal of Psychology, Vol. 9, 1955, p. 19.

17 Richard A. Fear, The Evaluation Interview, New York, McGraw-Hill, 1958, p. 176.

meaningless descriptive terms by the various authors. Such words and phrases as affective factors, problem individuals, mental condition and emotional maladjustment conceal as much as they reveal. None of these terms are clearly defined and they lack precision.

As a means of dispensing with the use of such nebulous terms, the writer has attempted to relate primary personality traits, substantiated by scientific research, to the phenomenon of job mobility. In order to achieve this goal, Cattell's Sixteen Personality Factor Questionnaire was used. By the use of specific terms, operationally defined, one is able to avoid "vague associations and false meanings"[18] which may lead to confusion and misunderstanding.

It would seem that as it becomes possible to be more precise in our terminology and to break down general terms into those which are more specific and clearly defined, greater precision and discrimination in describing and in accounting for behavioral differences between groups would be achieved.

3. Objective Studies of Labor Turnover.

Over twenty-five references were found which offered an enumeration of causes of labor turnover with the emphasis

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18 Raymond B. Cattell, Description and Measurement of Personality, Yonkers on Hudson, World Book Co., 1946, p. 497.

upon impersonal and objective factors. Some authors viewed the phenomenon from an historical perspective while others were more concerned with particular influences in a single business office or factory. Some authors showed considerable ingenuity in devising schematic classifications while others merely listed a number of causes like beads on a string.

There is very little similarity in the way that the classifications of causes of turnover were composed. It is quite possible that the different kinds of classifications reflect differences in the academic and experiental backgrounds of the authors and the work conditions existing at the time and place where the studies were made. Since it is difficult to find a common theme running through the studies, several of them in abbreviated form will be given. In general a chronological order has been followed:

Slichter,[19] in 1921, classified the causes of job turnover under seven headings, each one of which was further sub-divided into sub-groups. The seven groups are:

1) reduction in the quantity of work;
2) causes pertaining to the job;
3) causes pertaining to the methods of handling men;
4) causes pertaining to fellow workmen;
5) causes pertaining to the worker;
6) more attractive opportunities elsewhere; and
7) causes pertaining to the unattractiveness of the community as a place of residence.

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19 Sumner H. Slichter, The Turnover of Factory Labor, New York, Appleton, 1921, p. 223.

Fisher and Hanna[20] classify the general causes of turnover under four headings:

1) exploratory activities of inexperienced workers, both old and young;
2) violation of the worker's natural intellectual, physical and emotional qualities;
3) insufficient wages; and,
4) emotional maladjustment of workers.

In a study[21] of the records of 16,000 workers in an industrial community in New England during the years from 1937 to 1939, the reasons for interfactory movement were broken down on a percentage basis into the following three groups:

1) voluntary quits (14%);
2) forced resignations, discharges and laid off (36%);
3) reasons for leaving unstated (50%).

Baruch,[22] after an investigation of the turnover rates at a large American factory in 1944, placed all given causes under four categories:

1) health factors;
2) community lacks;
3) poor morale on the job; and,
4) troubles in personal life.

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20 V.E. Fisher and Joseph V. Hanna, The Dissatisfied Worker, New York, MacMillan, 1931, p. 217-218.

21 Charles A. Myers and W. Rupert Maclaurin, The Movement of Factory Workers, New York, Wiley, 1943, p. 23.

22 Dorothy W. Baruch, "Why They Terminate", in The Journal of Consulting Psychology, Vol. 8, No. 1, Jan-Feb. 1944, p. 44.

In a study[23] of 2,000 administrative employees during a six month period of time, the following causes of terminations and the percentages of each are listed:

1) dissatisfaction with the job (30%);
2) health reasons (11%);
3) personal reasons (29%);
4) military conscription (5%);
5) dismissed (20%); and,
6) laid off (5%).

Total (100%)

As the result of a search[24] for the relationship between turnover and each of twenty-four other variables in seven manufacturing divisions of an Indianapolis electronics factory, three variables were found to be significantly related to turnover:

1) hourly earnings of male workers;
2) job monotony; and,
3) promotion possibilities.

In an historical vein, Heron[25] states that the American work force is the most mobile in history because of the influence of a number of events which occurred in the past one hundred years. Among these he mentions the war with Mexico, the gold rush to California, the completion of the

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23 Ronald Taft and Audry Mullins, "Who Quits, and Why", in Personnel Journal, Vol. 24, No. 8, February 1946, p. 304.

24 Willard A. Kerr, "Labor Turnover and Its Correlates", in The Journal of Applied Psychology, Vol. 31, No. 4, August 1947, p. 371.

25 Alexander R. Heron, Why Men Work, Stanford, Stanford University Press, 1948, p. 97-101.

transcontinental railroad, the war between the States, the two world wars, and low cost transportation. He also believes that the creation of a system of public employment services had been instrumental in increasing the amount of labour turnover, geographically and occupationally.

Dutton,[26] in comparing conditions in Germany with the United States in 1918, states that in the former country a man would stick to a particular trade whereas in the United States, many men had a variety of skills in different occupational areas. He also felt that the increased communication facilities were responsible in part for much mobility.

Perhaps the most unusual factor associated with turnover had to do with talking.[27] Using the Tear Ballot for Industry Form, a significant relationship (.05) was found between turnover and minimal conversational opportunities. Not facetiously the author states that "an important psychic dividend from the daily work experience is the opportunity to talk with fellow workers."

On the basis of a study completed in 1943, Palmer[28] accounted for all causes of labor turnover under the

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26 Henry P. Dutton, "Why Men Leave Their Jobs", in Industrial Management, Vol. 56, No. 2, August, 1918, p. 147.

27 Willard A. Kerr et al, "Absenteeism, Turnover and Morale in a Metals Fabrication Factory", in Occupational Psychology, Vol. 25, No. 1, January, 1951, p. 51.

28 Dwight L. Palmer et al, "Why Workers Quit", in Personnel Journal, Vol. 23, No. 3, September, 1944, p. 119.

headings of occupational reasons and personal reasons. Under the former he includes such reasons as general dissatisfaction, heavy work, supervision, working conditions, and the desire to take another job. Under the latter heading he includes health, child care, transportation and home responsibilities.

Using the data obtained from the interviews of 180 men who had quit their jobs, Guest[29] states that social and economic dimensions of job satisfaction are important but often the main reason for quitting a job was technological in nature. The jobs in question consisted of highly repetitive motor operations on factory assembly lines.

Smith,[30] using information from 48 companies using the exit interview system, found the following reasons for job turnover: pay grievance, transportation problems, promotions, working conditions, poor health, job security, coworkers, housing, the job, the supervisor, confidence in management, and interest in employee welfare.

As was suggested above, the reported causes of labor turnover and their classifications by different authors

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29 Robert H. Guest, "A Neglected Factor in Labor Turnover", in Occupational Psychology, Vol. 29, No. 4, Oct. 1955, p. 229.

30 Frank J. Smith and Willard A. Kerr, "Turnover Factors as Assessed by the Exit Interview", in the Journal of Applied Psychology, Vol. 37, No. 5, Oct. 1953, p. 354-355.

reveal a number of ways of presenting the information available to them. In a number of cases, the authors failed to report how the data was obtained, the circumstances existent at the time it was gathered and the method followed in evaluating it. One might assume that the training and experience of each writer would determine in part the manner in which he perceived and organized the data. It should be noted that in none of the studies found in the literature was any mention made of personality traits as being related to labor turnover. It should also be noted that all of the studies were carried out in private industry.

4. Doubtful Validity and Reliability of the Studies of Labor Turnover.

As was suggested above, there is reason to doubt the validity and reliability of the findings of many of the investigations having to do with the causes of labor turnover. Almost all of the studies have been based on interview findings or on company records. Some of the reports appear not even to have this much of an empirical basis and it may be supposed that the conclusions drawn from them are even less worthy of serious consideration.

Almost forty years ago,Brissenden[31] stated that earlier efforts to determine causes of labor turnover were not very successful. He expressed the belief that most men do not like to be questioned as to their reasons for terminating their employment and that they often give fictitious rather than the real reasons. The men felt that if they gave the true reasons for leaving, that information might have been used against them when they sought employment elsewhere. The author adds[32] that most employment managers believed that only in the cases of discharge could the real cause of separation definitely be known. This statement may be equally true today.

Kitson[33] in 1925 expressed the belief that the conduct of employees is motivated by forces not easily understood by the employees themselves and that it would be necessary to look beneath the surface to find the real reasons why men change jobs.

A study[34] of 421 randomly selected ex-employees of the Lockheed Aircraft Company who voluntarily terminated employment

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31 Paul Frederick Brissenden and Emil Frankel, Labor Turnover and Industry, New York, MacMillan, 1922, p. 94-95.

32 Ibid., p. 96.

33 Harry Dexter Kitson, The Psychology of Vocational Adjustment, Philadelphia, Lippincott, 1925, p. 41.

34 Dwight L. Palmer et al, op. cit., p. 119.

was made during August-October, 1943. They were interviewed by investigators from an outside agency from two to four weeks after leaving. On the basis of the findings, the authors state that data from such interviews at the termination of employment cannot be accepted at face value. As a basis of control of excessive turnover, the information obtained was misleading and unreliable.

Cooper[35] also found that the use of the interview as a fact finding device was unreliable. He states:

> If our objective is to find out what is on the worker's mind, we are forced to challenge the validity of systems heretofore in use for determining 'the reason' why an employee desires to leave.

Cooper also found[36] that often the person quitting would give the most expedient rather than the real reason. He too voiced the opinion that in many cases the employees themselves were not conscious of the true reasons for their dissatisfaction.

One of the most enlightening and provacative studies pointing up the unreliability of the workman's statements about the reasons for quitting is reported by McNaughton.[37]

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35 Joseph D. Cooper, "Management Analysis and the Exit Interview", in Personnel Administration, Vol. 8, No. 3, Nov. 1945, p. 15.

36 Ibid., p. 15.

37 Wayne L. McNaughton, "Attitudes of Ex-employees at Intervals After Quitting", in Personnel Journal, Vol. 35, No. 2, issue of June, 1956, p. 62.

A questionnaire was distributed to ex-employees of a large aircraft company who had been gone from the company for periods of two months, seven months, and eleven months. This was part of a study to investigate the reasons for the heavy turnover in this particular organization. It was found that for each group, over 40% of those replying changed the reasons for terminating given at the time of the exit interview. Whereas the ex-employees tended to give innocuous reasons for terminating at the time they left the company, almost half of those replying from each group to the questionnaire gave more pointed reasons such as poor pay, bad supervision, slow advancement, etc.

These research reports indicate that the determination of and the classification of causal factors associated with labor turnover, if based on statements offered by the employees, can be misleading. Whether these findings should result in the rejection of subjective data as a means of investigating the phenomenon is not known. Although some information thus obtained is unreliable, it may be that a greater portion of it could be utilized.

The approach followed in this study is not intended as a substitute for other methods of investigating turnover, whether in private industry or in penal settings. It is intended only as another means of attempting to further the understanding of the problem.

If the statements of employees in private industry are unreliable, those of inmates in penal institutions would be equally unreliable or perhaps even more so. The present and past personnel officers at the Ohio Penitentiary have told the writer that they do not understand the "reason" why some inmates are unable to stablize themselves occupationally. They realize that the excuses offered for requesting job transfers are often patently untrue. In many cases, the inmates seem genuinely unable to explain the need for and cause of their behaviour.

This research project was undertaken primarily to gain a better understanding of the possible personality trait factors associated with job mobility, in the institution. The practical implications of positive findings for vocational training and greater industrial stability are readily apparent.

CHAPTER III

SELECTION OF SUBJECTS AND TEST PROCEDURES

This chapter deals with the selection of subjects for inclusion in the control and experimental groups and the procedures followed in carrying out the administration of the test.

Section One pertains to the selection of the subjects. Such factors as age, race, intelligence level and the number in the sample will be discussed.

Further information about the classification of jobs, assignment of jobs, and the policy governing job changes are explained in Section Two.

Section Three discusses the characteristics of the test used and the rationale for its selection for use in this study.

Section Four describes the administration of the test and the setting in which it was given.

1. Selection of the Subjects.

On the basis of prior knowledge about the prison population, it was decided to limit the control and the experimental groups to only those men who met certain criteria. These criteria were that all of the men would be white, between the ages of 20 to 35 years inclusive, would be literate and possess dull-normal or higher intelligence.

In order to obtain all of the information needed for the selection of subjects, the file cards in the personnel office were used. There is a card kept on each inmate containing a complete occupational history including job assignments, data of job changes, whether the changes were initiated by the man or whether they were made by the officials. Other data include the man's name, number, race, age, I.Q., as well as other information not germane to this study.

No attempt was made to control for such variables as previous periods of incarceration, nature of the offence, geographical origin or socio-economic level. To have done so would have limited the sample to a very small number. But the more realistic reason for not having done so was because it would not have been possible. Some states keep such inadequate records that a man may have served time in any one of them previously but this information is not or cannot be passed on. Also when it is a matter of record that over 80% of the State of Ohio's inmate population in 1955 served time for offences for which they were not initially charged,[1] it would be impossible to match for or to control for the nature of the offences.

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1 Donald E. Smeltzer, Criminal Court Statistics, 1955, Ohio State Reformatory Press, Mansfield, (no date), p. 8.

Originally it had been planned to increase the number of inmates in the study by including subjects from other correctional institutions in the state. It was soon apparent that this would not be feasible because of the differences in administrative policy followed at the other institutions and also because of the limited number of jobs available at them. For example, at one of the medium custody institutions, any inmate who cannot make a satisfactory adjustment to his job is immediately returned to maximum custody.

At one of the light custody institutions, there has been very little job turnover, because of the few jobs available. The institution in question is an honor camp accommodating about seventy men. Sixty of them are assigned to general laboring work in one of the state parks. Other than the few house-keeping jobs performed by the remainder of the men, there are no other jobs to which they can change. Also these men were not representative of the general inmate population since they were selected for light custody on the basis of exemplary institutional behaviour.

Because of these circumstances, it was thought best to limit the subjects to those in the maximum custody institution. There all of the conditions would be more nearly identical for both the experimental and the control groups.

The negro population at the Ohio penitentiary was not included in the study even though they constitute a large minority of the prison population. There were two reasons for having excluded them from the project.

The first reason has to do with the discrimination policy which is conspicuous by its presence. Because of it, negroes are not eligible for placement in a number of work situations, regardless of their interest or ability. They are not considered for jobs in the commissary, the hospital, the machine shop, the bakery or in any of the clerical positions. Since their possibilities of movement from one job to another are severely curtailed, it may have contaminated the sample if they had been included.

The second reason for not including the negroes in the study was their presumed inability to participate in the testing program. Regardless of the causal factors at play, it is a matter of record that the colored population consistently score appreciably lower on all psychological tests administered at the institution. Although constituting about 35% of the prison population, about eight times as many negroes have to be seen for individual testing. (All inmates obtaining an I.Q. of 72 or less on a group test of intelligence are given the full scale Wechsler-Bellevue). A check of the scores obtained on the Bennett-Fry Test of Mechanical Comprehension revealed that only 3 of the first 200 records of

colored inmates checked had scores above the 50 percentile as compared to 94 out of a similar number of records of white inmates. Although there were no reliable figures available indicating the literacy rate of both groups, about 80% of the elementary school enrolment is made up of colored inmates.

The age range of the subjects used in this study was between 20 and 35, both inclusive. There were very few men in the institution below the age of 20 since a separate reformatory receives most of the young first offenders who are between the ages of 18 and 25. Only if men between these ages are found guilty of a second offence are they sent to the Ohio Penitentiary. The upper end of the age range was set at 35 because it is the policy of the department of psychology to limit vocational testing and guidance to inmates at or below this level.

Studies of age in relation to job mobility do not reveal consistent findings. Obviously many factors affect the movement of workers. Palmer,[2] on the basis of a study of 451 employees who voluntarily terminated, found that turnover varied according to such circumstances as time, place, occupation, sex, and social and economic factors. As far as the penitentiary sample is concerned, the ages of the two groups

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2 Dwight L. Palmer et al, "Why Workers Quit", Personnel Journal, Vol. 23, No. 3, September 1944, p. 113-114.

were not significantly different. The mean age of the experimental group was 29.64 with a standard deviation of 4.45 years. The mean age of the control group was 28.40 years with a standard deviation of 4.40 years. See Table I for the age distribution of subjects used in this study.

The work histories of the subjects used in this study were not investigated although this had been considered at first. As a rule, when an inmate enters the institution, a social worker sends a questionnaire to the last three employers as supplied by the inmate. In some very few cases, information is received from each former employer giving dates of employment, wages, department on the job, and reason for termination. These instances are rare. Often the employer does not respond or he returns the questionnaire without supplying the requested information. Frequently there is no record of the name of the employer as given by the inmate.

Experience has shown that employment data as given by the inmate is often false or at least misleading. The men invariably put themselves in the best possible light. In many cases, it is simply a matter of untruthfulness or gross exaggeration. Because of the doubtful worth of the information obtained from the inmates and from their past employers through correspondence, no attempt was made to compare the extramural with the intramural work adjustments of the inmates.

TABLE I.-

Frequency Distribution of Chronological Ages in Years of Subjects in the Control and Experimental Groups with Their Respective Mean and Standard Deviation.

Control Group N = 60		Experimental Group N = 53	
Chronological Age	Frequency	Chronological Age	Frequency
19-21	3	19-21	0
22-24	9	22-24	10
25-27	16	25-27	9
28-30	11	28-30	9
31-33	11	31-33	10
34-36	10	34-36	15
Σ =	1704	Σ =	1704
M =	28.40	M =	29.64
S. D. =	4.40	S. D. =	4.45

M. D. = 12.39

t = .065

(21 years 6 months = 21 years)
(21 years 7 months = 22 years)

All of the subjects used in this study tested at a dull-normal level of intelligence or above. All inmates were given the Ohio Penal Classification Test of Intelligence. It was found to correlate with the full scale Wechsler-Bellevue to the extent of .79 (when corrected for attenuation this becomes .90). The mean I.Q. of the control group was 106.16 with a standard deviation of 11.41. The mean I.Q. of the experimental group was 108.30 with a standard deviation of 12.68. The difference is not significant at the .01 level. See Table II for the distribution of Intelligence Quotients of subjects used in this study.

Since each inmate entering the institution is given a sentence completion test and the Bennett Mechanical Comprehension Test, there is evidence as to whether he can read and write. However, as a further check of the reading skill of the subjects used in this study, each one was given a copy of the test used and he was asked to read the instructions out loud. Only one subject, a native of Mexico, demonstrated such impaired reading ability that he was eliminated from the group.

In making the selection of men for both the experimental and control groups, the writer started with the names and numbers of men who had been in the institution for a minimum of 13 months as of March 1, 1959. This would allow one month for the completion of the orientation program and

Table II.-

Frequency Distribution of Intelligence Quotients for the Control and Experimental Groups as Measured by the Ohio Penal Classification Test

Control Group N = 60		Experimental Group N = 53	
Intelligence Quotients	Frequencies	Intelligence Quotients	Frequencies
80-84	4	80-84	5
85-89	4	85-89	5
90-94	7	90-94	2
95-99	7	95-99	4
100-104	8	100-104	5
105-109	3	105-109	5
110-114	7	110-114	3
115-119	6	115-119	6
120-124	9	120-124	8
125-129	2	125-129	5
130-134	3	130-134	2
135-139	0	135-139	1
M = 106.16		M = 108.30	
S. D. = 11.41		S. D. = 12.68	

M. D. = 2.14
t = .095

twelve months of work experience. The cards were then checked in order so that those men who were in the institution for the minimum time needed to fill the period of 13 months were checked first. Every card was checked in order. If it indicated that the person met all the criteria of age range, race, intelligence, and also had either one job placement or else four or more job placements, with three job changes initiated by the inmates, the name and number of that person was noted. All of these men were called over to the Department of Psychology and were interviewed by the writer on an individual basis. Each was asked if he would volunteer for a research project that was about to be started. None of the men was told the nature of the project nor how their names had been selected. They were simply told that the project was an attempt to determine the "usefulness and similarity" of two tests. A brief explanation of the need for such a study was given.

No promises of any kind were made to the men except that the warden and the members of the Pardons and Parole Board would be notified of their participation. Since all of the subjects wanted the test results, it was agreed that they would be made known. After the testing was completed a profile sheet was filled out and explained to them. Since most of the men were somewhat suspicious that the results might become part of their records, the original work sheets

were destroyed in their presence but only after the raw and sten scores had been recorded.

Altogether 117 men were contacted. Only three refused to volunteer and one other man was dropped because of a language handicap.

2. Job Placements.

All of the work assignments in the penitentiary are customarily divided into three main groups: production, maintenance, and house-keeping. Under production is included all of the jobs in the woollen mill, the cotton mill, the knitting mill and the tag shop. Under maintenance is included all of the jobs in the carpenter shop, the machine shop, the planing mill, the print shop, the tailor shop, the tin shop, the power plant, the store room, the commissary, the hospital and all of the clerical jobs. Under house-keeping is included all of the jobs having to do with the storage and preparation of food and the cleanliness of the community. Window washing, cleaning and painting of the interiors, the policing of the yards and all of the porter jobs would be included in the latter category.

As was stated in Chapter One, all men entering the institution, with few exceptions, are given a work assignment. Those men who are ill or disturbed or who are awaiting execution are kept isolated from the rest of the population.

Generally speaking, it is customary to place all of the men in one of the mills or in the tag shop as their first job placement. The individual is expected to stay on that job for a period of at least six months. At the end of that time the person may request a transfer to any other job where there is an opening as long as he is capable of learning to do the job. This is, of course, contingent upon his work and conduct records.

In order to make the two groups used in this study sufficiently discrete, it was decided to have the control group consist of men having had only one job assignment (no job changes) during the year of incarceration covered by this study.

The experimental group consisted of men, who, during the same period of time, had had at least four different job assignments (three or more job changes at their own request).

Those men who, during the 12 month period covered by the study, had had one or two changes of jobs at their own request were not included. They were excluded so that the experimental and control groups would be, on a behavioral basis, quite distinct from each other. It should be pointed out that some job changes were initiated by the personnel office for security reasons or for the convenience of the institution. These changes of jobs were not used for the selection of the experimental group because such changes

were not initiated by the inmates themselves. See Table III for the distribution of job changes of the inmates used in this study.

3. Choice of the Test.

In the selection of an appropriate test instrument for detecting personality differences between the two groups, it was felt that the larger the number of traits measured the more useful and enlightening the data obtained would be. It was also felt that the test should be suitable for group administration, and that the educational background of those taking the test need not be too high. The Cattell Sixteen Personality Factor Test fulfills all of these requirements.

This test purports to measure sixteen personality source traits.[3] Factors or source traits are thought of as representing structural influences, derived from observed behavior, and which account for the regularity and consistency of an individual's behavior. These traits are of two kinds, the constitutional traits and the environmental-mold traits. The former are those whose influence is derived from physiological or internal forces while the latter are a reflection of the effects of social and cultural or external influences.

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3 Raymond B. Cattell, Personality, A Systematic Theoretical and Factual Study, New York, McGraw-Hill, 1950, p.34.

Table III.-

Frequency Distribution of Job Changes for the Control and Experimental Groups During the Twelve Month Period Covered by the Study.

Control Group N = 60		Experimental Group N = 53	
Number of Job Changes	Frequencies	Number of Job Changes	Frequencies
0	60	0	0
1	0	1	0
2	0	2	0
3	0	3	33
4	0	4	11
5	0	5	6
6	0	6	0
7	0	7	3
8	0	8	0
		M = 3.66	
		Range = 4	
		S. D. = .98	

It is the author's belief[4] that the detection and delineation of these factors will enable one not only to describe personality in a more explicit manner but will also permit a better understanding of and prediction of behavior.

The factors or source traits tapped by this instrument are given in Table IV. The technical names for them are listed first and, in parentheses, the more commonly used descriptive labels are presented.

The test uses a vocabulary no more complex than that needed to read a daily newspaper. It can be completed in about forty-five minutes. As the author states,[5] this instrument meets the needs of the psychologist for a questionnaire type of test which will give the fullest information in the shortest time about a number of important personality traits.

Because of these claimed characteristics, the test was used for this research project. Since there is no objectively scored non-projective personality test now administered at the Ohio Penitentiary, it was hoped that this project would indicate whether this test should be included in the battery now given.

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4 Raymond B. Cattell, op. cit., p. 27.

5 R.B. Cattell, Handbook for the Sixteen Personality Factor Questionnaire, Champagne, Institute for Personality and Ability Testing, 1957, p. 1.

Table IV.-

The Factors or Source Traits Measured by the Cattell Sixteen Personality Factor Test.[6] (Arabic numbers have been substituted for the Universal Index numbers used in the Manual.)

1. Cyclothymia (Warm, sociable)	vs Schizothymia (Aloof, stiff)
2. General Intelligence (Bright)	vs Mental defect (Dull)
3. Emotional, Stability (Mature, calm)	vs Dissatisfied, Emotionality (Emotional, immature)
4. Dominance (Aggressive, competitive)	vs Submission ("Milk toast", mild)
5. Surgency (Enthusiastic)	vs Desurgency (Glum, sober, serious)
6. Character (Conscientious,persistent)	vs Lack of internal standards (Casual, undependable)
7. Parmia (Adventurous, "Thick skinned")	vs Threctia (Shy, timid)
8. Premsia (Sensitive, effeminate)	vs Harria (Tough, realistic)
9. Protension (Suspecting, jealous)	vs Relaxed, security (Accepting, adaptable)
10. Autia (Bohemian, introverted)	vs Praxernia (Practical, concerned with facts)
11. Shrewdness (Sophisticated, polished)	vs Naivete (Simple, unpretentious)
12. Guilt, Proneness (Timid, insecure)	vs Confident, Adequacy (confident, self-secure)
13. Radicalism	vs Conservatism of temperament
14. Self-sufficiency (self-sufficient, resourceful)	vs Group dependency (sociably group dependent)
15. High Self-sentiment Formation (Controlled, exacting will power)	vs Poor self-sentiment (Uncontrolled, lax)
16. High Ergic Tension (Tense, excitable)	vs Low Ergic Tension (Phlegmatic, composed)

6 R.B. Cattell, Handbook for the Sixteen Personality Factor Questionnaire, Champagne, Institute for Personality and Ability Testing, 1957, p. 11-19.

It has long been hoped that the problem of job mobility in this particular institution would be more thoroughly investigated not only for the practical purposes of stabilizing the working force and increasing production but also because of the better understanding of the theoretical aspects of the phenomenon.

If the 16 P.F.T. was successful in differentiating between the two groups used in this study, it had been planned to use it also in the investigation of other research problems at the institution.

4. Administration of the Test.

As was stated above, the inmates were interviewed individually after their selection according to the criteria previously discussed. Shortly after volunteering, the men were called over to the Department of Psychology in groups of six. Two men at a time were called into one of the individual offices and seated on opposite sides of the desk. They were put at ease, were given cigarettes and reassured about the confidentiality of the test results. They were cautioned not to talk to one another during the test period; if they wanted to ask any questions or take a break, they were instructed to leave the office and go into the main waiting room. Since all of the individual offices open off the main waiting room and since all of the offices are

partitioned with glass from a height of three feet above the floor to the ceiling, it was easy to maintain surveillance all the time the tests were being taken.

Care was taken to be sure that the same form of the test was not given to two men occupying the same office at the same time. No attempt was made to control the order in which the men were called into the office to keep them from guessing the reason for their selection, nor was any attempt made to control which form of the test was given to any particular individual. All of the men were given both forms A and B within a one week period of time. If form A was given on a Monday, form B was given on the following Monday. Because of conflicts in scheduling, however, some of the men seen on one morning may have been seen the next time in the afternoon.

All of the interviewing and all of the administration of the tests were handled by the writer.

CHAPTER IV

PRESENTATION OF THE FINDINGS

In review, this study attempted to determine whether measured personality trait differences could be found between prison inmates who changed jobs frequently and those inmates who did not change jobs at all. The measuring instrument used was Cattell's Sixteen Personality Factor Questionnaire, Forms A and B. The measuring unit used consisted of raw scores which were transformed into sten scores according to the instructions in the test manual. The experimental group consisted of 53 subjects and the control group consisted of 60 subjects.

1. Analysis of the Results.

In order to determine the reliability of the instrument a *t* test of significance between the means of the sten scores was computed between Forms A and B for both groups independently. It was found that factors 1, 7, and 9 for the control group were significantly different at the .01 level of confidence. This was the only level accepted for this study. For the experimental group, significant differences at the .01 level were found for factors 1, 6, 10, and 15. Because of these significant differences, these factors were eliminated for further statistical treatment on

the basis of their unreliability. No significant differences were found between Forms A and B on factors 2, 3, 4, 5, 8, 11, 12, 13, 14, and 16. Accordingly, these ten remaining factors could be compared using either Form A or Form B. Form A was selected for comparison of the ten remaining factors. The mean sten scores of the two groups of the reliable sub-tests were matched and the difference between them was found in order to determine which factor yielded the greatest mean difference.

Factor 13 (Radicalism vs Conservatism of Temperament) yielded the greatest t ratio. This was 1.80. Since a t ratio of 2.61 was needed at the .01 level and all other t ratios were smaller, the remaining mean differences were also not significantly different. This indicates that no significant differences between the groups in personality traits measured were revealed by this instrument. The data are presented in Table VII.

The following formula was used:

$$t = \frac{(\bar{X}_1 - \bar{X}_2)}{S_{(\bar{X}_1 - \bar{X}_2)}}$$

The above formula assumes that the samples were drawn from a normal, independent population. Therefore a comparison of group variance was calculated in order to determine whether any significant differences existed between the two groups. With 52 and 59 degrees of freedom, and F

Table V.-

The Mean Difference of Sten Scores, S. E. of Differences, and t Values of the Factors for the Control Group Obtained by Comparison of Form A and Form B of the Cattell Sixteen Personality Factor Test. (Significant t values require 2.61 at .01 level.)

Factor	Mean Difference	S. E. of Differences	t
1	1.31	.32	4.09
9	1.21	.34	3.56
7	1.12	.34	3.29
15	.97	.40	2.42
12	.60	.42	1.43
6	.49	.42	1.17
10	.46	.36	1.28
13	.40	.34	1.17
11	.37	.37	1.00
14	.35	.35	1.00
8	.35	.30	1.16
5	.28	.35	0.08
3	.20	.44	0.45
4	.18	.40	0.45
2	.12	.34	0.35
16	.11	.45	0.24

Table VI.-

The Mean Difference of Sten Scores, S. E. of Differences, and t Values of the Factors for the Experimental Group Obtained by Comparison of Form A and Form B of the Cattell Sixteen Personality Factor Test. (Significant t values require 2.62 at the .01 level.)

Factor	Mean Difference	S. E. of Differences	t
10	1.74	.38	4.58
6	1.37	.33	4.15
1	1.36	.42	3.24
15	1.26	.47	2.68
7	1.08	.45	2.37
8	.91	.41	2.22
14	.85	.38	2.23
5	.51	.45	1.13
9	.51	.40	1.27
12	.45	.43	1.04
4	.35	.43	0.08
2	.32	.36	0.08
3	.29	.48	0.06
13	.18	.32	0.05
11	.17	.36	0.04
16	.04	.51	0.01

Table VII.-

t Values of Mean Sten Score Differences of the Control and Experimental Groups for the Ten Factors of Demonstrated Reliability on Form A of the Cattell Sixteen Personality Factor Test. (Significant t value requires 2.61 at the .01 level.)

Factor	Mean Difference	S. E. of Differences	t
13	.61	.34	1.80
12	.62	.40	1.55
16	.47	.47	1.00
3	.37	.44	.84
8	.33	.36	.92
4	.32	.39	.82
5	.22	.38	.58
14	.22	.35	.63
2	.12	.32	.38
11	.10	.35	.29

equal to 1.85 was necessary. An F equal to or exceeding 1.85 was not found. Because of this fact, it was concluded that the two groups were drawn from a normal, independent population and that any difference which existed between the two groups had to be different with respect to their means and not to be existing variances. This data is presented in Table VIII.

The following formula was used:

$$F = \frac{S_1^2}{S_2^2}$$

The null-hypothesis, as stated, is therefore not rejected.

2. Discussion of the Results.

The analysis of the data reveals that no personality trait differences were found between the control group and the experimental group. The point should be emphasized, however, that no differences were found, rather than no differences exist.

A number of possible explanations for the lack of positive findings might account for this. It might be presumed that the two groups were homogeneous as far as personality trait structure is concerned and that the categorization of men into two groups according to the number of job

Table VIII.-

F Ratios Obtained by Comparison of Variance Scores from the Experimental and Control Groups.

Factors	S^2_{1e}	S^2_{2e}	F Ratio
1	6.40	3.65	1.75
2	2.66	3.39	1.27
3	4.58	6.55	1.43
4	4.33	4.41	1.02
5	3.76	4.67	1.24
6	4.71	3.46	1.36
7	4.20	5.15	1.23
8	2.82	4.45	1.52
9	3.72	4.49	1.21
10	3.57	3.92	1.10
11	3.69	3.46	1.07
12	4.93	4.49	1.10
13	2.92	3.72	1.27
14	3.53	3.65	1.03
15	5.15	5.43	1.05
16	6.86	6.15	1.12

changes involves no psychologically important behavorial criterion. This hypothesis is untenable, however, on the basis of further information gathered on these men at the time the study was made.

Along with the number of job placements each subject had obtained, a record was also made of the number of sick calls and the number of court calls each one had accumulated during the same 12 month period. The number of sick calls was determined simply by tabulating the number of days on which each man was seen for medical attention. The nature of the complaint and the kind of treatment given were not considered.

The mean number of sick calls for the control group was 1.83 with a standard deviation of 4.72. The mean number of sick calls for the experimental group was 5.01 with a standard deviation of 6.62. See Table IX.

In like manner, the number of times each subject was placed on court call because of infraction of institutional rules was tabulated. The nature of the offences and the disposition of the cases were not considered.

The mean number of court calls for the control group was 1.96 with a standard deviation of 5.23. The mean number of court calls for the experimental group was 3.30 with a standard deviation of 4.42. See Table X.

Table IX.-

Frequency Distribution of Sick Calls for the Control and Experimental Groups During the Period of Time Covered by This Study.

Control Group N = 60		Experimental Group N = 53	
Sick Calls	Frequencies	Sick Calls	Frequencies
0	23	0	11
1	13	1	5
2	8	2	6
3	5	3	6
4	2	4	6
5	2	5	4
6	1	6	2
7	3	7	4
8	1	8	1
9	1	9	1
10	1	10	1
		11	1
		12	2
		26	1
		28	1
		31	1
M = 1.83		M = 5.01	
S. D. = 4.72		S. D. = 6.62	

M. D. = 3.18
t = 3.41

Table X.-

Frequency Distribution of Court Calls for the Control and Experimental Groups During the Period of Time Covered by the Study.

Control Group N = 60		Experimental Group N = 53	
Court Calls	Frequencies	Court Calls	Frequencies
0	21	0	8
1	14	1	8
2	7	2	12
3	6	3	6
4	4	4	4
5	4	5	2
7	1	6	5
8	2	7	4
13	1	9	1
		10	1
		11	2
M =	1.96	M =	3.30
S. D. =	5.25	S. D. =	4.42

M. D. = 1.34
t = 3.19

The number of sick calls and the number of court calls accumulated by the experimental group were significantly greater at the .01 level, than were those of the control group. This would indicate that, on a behavioral basis, these two groups were not homogeneous. In the light of these findings, it would appear that there were basic personality differences between the two groups. This would seem to substantiate Roe's statement[7] that it is impossible to separate occupational adjustment from general life adjustment since one is a measure of the other. Neither is prior to nor independent of the other.

If the two groups of men used in this study were different in personality structure as the three criteria of job instability, sick calls and court calls strongly indicate, why did the differences fail to materialize on the basis of the test used? Several possible explanations might be considered.

It may be supposed that both groups of subjects were psychologically homogeneous since all of them were convicted felons. While this statement is true, it fails to account for the results on rational grounds alone. The kinds of people who commit crimes are as legion as the presumed

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7 Anne Roe, The Psychology of Occupations, New York, Wiley, 1956, p. 284.

causes of crime. Since it is known on an observational basis that there are great differences psychologically between felons, this explanation does not seem completely satisfactory.

It may also be supposed that spending a period of time in a penal institution might have a leveling effect to the extent that there would be a "regression to the mean" as far as personality traits are concerned. While this explanation is not expressly disproved on the basis of any known research findings, it is certainly not in keeping with the observations of the writer.

Another possible explanation for the lack of differences found at least sounds more acceptable. It is possible that the subjects in both groups, either consciously or unconsciously, tended to answer the questions in the way they believed they should have been answered rather than in the way which would have reflected their true beliefs. In spite of the assurance that each subject was given about the confidentiality of the test data, their possible suspicions may have resulted in a generalized attitude which lead to a similar set in responding to the items. It should be said that all of the men were free to volunteer or not for the project but, under feelings of duress, they may have participated only because they felt obliged to. There is no evidence to prove this one way or another.

Finally it might be presumed that the lack of differences found could be understood on the basis of each group being heterogeneous in composition. Thus the experimental group could have consisted not only of men characterized by emotional maladjustment but also of men who desired to better themselves by seeking training and experience in a number of different jobs. On the other hand, the control group may have been composed not only of men characterized by perseverance and capacity to adjust to new situations but it may also have included some men too lazy or passive to try to better themselves by seeking new job placements.

If only the test data were available, this explanation would sound quite plausible and would deserve serious consideration. But the fact that the experimental group also showed a greater degree of behavioral differences (maladjustment?) in the number of sick calls and court calls, would seem to cast considerable doubt on the validity of this interpretation.

In summary, it can be said that the instrument used to differentiate between the groups failed to reveal any differences in the 16 personality traits which it measures. It is presumed on the basis of other criteria than job instability that these were discrete groups at least on a behavioral level. Several possible explanations were discussed but there is no definite reason to account for the lack of positive findings.

3. Suggestions for Further Research.

Research on the topic of job mobility in a penal institution could be followed along several lines of investigation. For example, the relationship between job instability and various social, economic and environmental conditions in existence prior to incarceration could be studied. Some efforts along these lines have already been made.

Such research might yield a wealth of information lacking at present. But if we concern ourselves only with studies from a psychological point of view, the following suggestions seem pertinent.

Since the instrument used in this study failed to reveal positive findings, i.e., significant differences between the two groups in personality traits, it is possible that other instruments might. Thus the Guilford-Zimmerman Temperament Survey which taps ten major personality traits might discriminate between the groups. This is merely speculation and it is entirely possible that it too, under similar conditions, might not achieve better results.

Other questionnaire-types of tests such as the Bell Adjustment Inventory, the Bernreuter Personality Inventory, and the Minnesota Multi-phasic Personality Inventory, although not specifically tests of personality traits, might provide clues to a better understanding of the phenomenon.

Aside from the more objective types of tests mentioned so far, the so-called projective techniques might be used to advantage. To a great extent, they do away with the transparency effect characteristic of the questionnaire type of test. The ability to give the "right" answer is much more difficult.

The main disadvantage in their use is the lack of precision in scoring the protocols. But what may be lost in this regard may be compensated for by the revalation of significant data about the group under study.

One possible approach to the choosing of the "right" test would have been to give a battery of tests to a control group and to an experimental group. On the basis of the data obtained, the most promising test or tests could then be used with a larger number of subjects. But such an open ended research approach would have the disadvantage of the test data determining the avenue of research rather than answering a specific hypothetical question.

There are many practical problems which exist at the Ohio Penitentiary which should be investigated. Who are the inmates most frequently on sick call and why? What is behind the behavior of those who repeatedly violate institutional rules? Who are the best light custody risks and why? What men make the best parole risks? What group of men would benefit most from vocational training? These problems and

many more confront the psychologist every day in the institution but answers to these questions backed by research are non-existent.

In regard to this project, it is the belief of the writer that the hypothesis as stated calls for further research. Although no personality differences were found by the research method used, the indicated disparity between the two groups reinforces the belief that differences do exist. Other approaches may well be more fruitful in revealing them.

SUMMARY AND CONCLUSIONS

This thesis attempted to disprove the null hypothesis that there were no personality trait differences to be found in inmates working in a penal institution who change jobs frequently as compared with those inmates who do not change jobs frequently.

The problems which accrue to both the administrators of the institution and to the inmate body were enumerated and briefly discussed.

Cattell's Sixteen Personality Factor Test was administered to sixty inmates at the Ohio Penitentiary who had had no job changes in a twelve month period of time and to fifty-three inmates who had had a minimum of three job changes during the same period of time.

No significant differences were found. This finding does not permit rejecting the null hypothesis as stated. However, further data presented in two other areas of adjustment (sick calls and court calls) revealed significant differences between the two groups. The assumption was that the groups may be different but the instrument used failed to discriminate. Several possible reasons for this were discussed.

Because of the importance of the problem from both theoretical and practical points of view, it is believed

that the phenomenon of job instability calls for further research. Other objective or projective tests might be used with subjects in other penal institutions. Although prisoners are atypical workers in an abnormal environment, positive research findings might reveal research methods which could be used to investigate the same problem in non-penal industrial settings.

Since this study revealed significant differences among inmates in the number of sick calls and the number of court calls which the experimental group had accumulated, these criteria could serve as the bases for further research projects.

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The thesis that financial rewards and penalties are not sufficient to motivate men to work is defended. The author states that employee unrest would be lessened if they were permitted to participate in the functions of management. The book contains an interesting historical background to the problem of job mobility.

Heston, Joseph C., "Personality Inventories as Tools in Guidance", in Occupations, Vol. 29, No. 7, 1951, p. 497-501.

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APPENDIX 1

Table XI.-

Summation, Mean and Standard Deviation Scores of the Control Group, Form A, on the Cattell Sixteen Personality Factor Test.

Factor	Ex	Mean	S.D.
1	307	5.12	2.53
2	238	3.97	1.63
3	257	4.28	2.14
4	276	4.60	2.08
5	279	4.65	1.94
6	290	4.83	2.17
7	282	4.70	2.05
8	354	5.90	1.71
9	376	6.27	1.93
10	383	6.38	1.89
11	330	5.50	1.92
12	401	6.68	2.22
13	341	5.68	1.71
14	385	6.42	1.88
15	342	5.70	2.27
16	379	6.32	2.62

Table XII.-

Summation, Mean and Standard Deviation Scores of the Control Group, Form B, on the Cattell Sixteen Personality Factor Test.

Factor	Ex	Mean	S.D.
1	386	6.43	1.83
2	231	5.85	2.17
3	245	4.08	2.43
4	265	4.42	2.45
5	296	4.93	1.91
6	319	5.32	1.56
7	215	3.58	2.06
8	333	5.55	1.60
9	353	5.88	1.88
10	355	5.92	2.07
11	308	5.13	2.01
12	365	6.08	2.12
13	317	5.28	2.06
14	364	6.07	1.99
15	284	4.73	1.99
16	386	6.43	2.21

Table XIII.-

Summation, Mean and Standard Deviation Scores of the Experimental Group, Form A, on the Cattell Sixteen Personality Factor Test.

Factor	Ex	Mean	S.D.
1	276	5.21	1.91
2	217	4.09	1.84
3	207	3.91	2.56
4	261	4.92	2.10
5	235	4.43	2.16
6	206	3.89	1.86
7	278	5.25	2.27
8	330	6.23	2.11
9	366	6.91	2.12
10	392	7.40	1.98
11	297	5.60	1.86
12	379	7.15	2.12
13	269	5.07	1.93
14	350	6.60	1.91
15	305	5.75	2.33
16	360	6.79	2.48

Table XIV.-

Summation, Mean and Standard Deviation Scores of the Experimental Group, Form B, on the Cattell Sixteen Personality Factor Test.

Factor	Ex	Mean	S.D.
1	348	6.57	2.25
2	200	3.77	1.94
3	192	3.62	2.42
4	242	4.57	2.34
5	262	4.94	2.48
6	280	5.28	1.54
7	221	4.17	2.34
8	282	5.32	2.10
9	338	6.38	2.02
10	300	5.66	2.01
11	288	5.43	1.88
12	355	6.70	2.29
13	278	5.25	1.58
14	305	5.75	1.97
15	238	4.49	2.52
16	362	6.83	2.75

Table XV.-

Raw Data, Sten Scores, Form A of the Sixteen Personality Factor Questionnaire for the Control Group.

	Sten Scores for Factors 1 - 16															
S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7	4	3	4	8	1	3	9	10	8	7	10	5	5	5	10
2	6	5	4	1	3	3	2	7	7	4	4	9	7	8	5	7
3	5	2	7	3	5	4	4	5	9	8	6	6	6	7	5	9
4	2	5	5	4	4	4	4	7	3	7	5	7	7	8	6	6
5	3	4	8	4	5	7	6	9	5	6	4	4	7	8	7	1
6	3	5	3	4	3	4	5	4	6	8	6	8	3	7	5	7
7	3	3	4	6	5	4	5	6	5	9	5	7	3	8	5	5
8	10	3	7	3	7	9	9	8	5	3	8	3	3	3	6	3
9	8	3	1	5	3	4	1	5	8	9	4	10	7	8	5	10
10	5	2	4	4	3	6	7	7	3	4	2	3	4	6	7	3
11	6	2	6	3	4	4	4	7	8	8	8	8	7	9	2	6
12	8	5	6	3	2	8	7	3	3	3	7	4	7	6	5	4
13	2	7	6	7	7	6	4	5	3	4	7	5	5	8	8	5
14	6	1	4	5	5	6	5	8	7	7	6	7	7	6	3	10
15	4	3	7	3	6	4	2	5	5	8	3	7	7	9	7	4
16	6	3	2	4	4	3	5	8	5	7	7	5	7	5	3	8
17	9	5	1	6	5	7	5	7	6	7	3	5	7	7	5	6
18	1	4	2	6	3	1	2	9	9	10	6	7	7	9	10	7
19	5	3	2	8	4	2	7	7	8	6	7	9	5	3	7	6
20	6	6	7	8	7	10	5	5	6	6	3	8	5	5	6	4
21	9	4	7	7	6	4	7	4	9	6	6	8	7	4	1	9
22	2	4	3	3	2	1	2	5	9	7	4	9	5	8	3	8
23	6	5	3	2	3	5	6	7	5	3	7	5	10	6	9	6
24	5	1	2	4	5	7	1	5	6	8	7	8	5	6	6	10
25	5	7	9	9	3	3	6	7	4	5	3	5	8	7	9	2
26	5	6	3	5	5	4	7	6	5	8	3	3	5	5	5	8
27	1	5	3	3	3	4	2	5	6	4	6	7	3	6	3	6
28	4	4	5	4	4	6	4	3	6	8	6	5	4	5	9	6
29	5	6	6	4	3	8	5	5	6	6	6	8	8	8	5	3
30	4	2	6	1	3	6	5	6	5	4	2	5	4	5	6	8
31	6	4	4	5	5	4	5	4	8	6	8	9	9	8	2	10
32	6	3	2	3	4	4	5	5	10	8	6	9	5	9	5	9
33	5	4	1	9	2	4	5	8	6	6	8	8	3	6	8	7
34	2	5	3	6	3	6	5	8	3	8	3	3	5	5	8	2
35	6	2	3	4	6	4	4	7	9	7	6	9	6	7	3	9
36	3	3	3	4	5	1	3	6	7	5	4	9	7	9	6	7
37	5	2	5	7	4	8	3	7	8	10	9	9	5	5	10	10
38	6	4	7	4	5	4	7	5	5	4	3	3	3	7	6	2
39	6	4	3	7	8	4	3	5	9	6	6	9	5	5	3	10

Table XV (Continued)

Raw Data, Sten Scores, Form A of the Sixteen Personality Factor Questionnaire for the Control Group.

	Sten Scores for Factors 1 - 16															
S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
40	6	7	2	5	9	4	8	5	6	4	9	4	7	3	6	5
41	8	2	2	4	3	2	4	5	5	5	3	7	3	5	6	9
42	5	6	1	1	2	1	2	8	6	7	3	10	3	8	4	9
43	6	4	7	3	7	8	6	3	6	4	4	3	7	4	8	3
44	8	7	4	5	7	6	8	8	6	6	8	5	7	5	10	3
45	10	5	7	7	10	3	8	5	3	5	6	5	6	2	3	3
46	9	4	8	6	5	4	9	1	6	6	9	4	5	4	5	2
47	5	5	6	3	7	1	5	7	5	6	6	9	6	4	5	5
48	5	2	6	2	2	6	5	5	5	8	3	7	7	9	9	3
49	4	5	4	7	7	4	8	3	8	6	6	3	8	9	7	7
50	5	3	5	3	3	4	6	8	6	10	3	7	5	6	8	6
51	3	3	1	2	3	6	1	4	5	4	7	9	4	5	8	7
52	7	5	2	3	3	7	5	5	5	6	7	5	4	6	6	3
53	6	2	4	4	3	6	6	7	3	5	3	5	6	5	1	6
54	4	3	3	6	5	5	3	8	8	9	6	8	6	9	1	10
55	5	2	3	6	6	9	4	5	10	9	8	9	6	6	6	9
56	3	2	7	4	8	4	5	5	7	5	5	8	7	5	5	10
57	2	3	3	9	8	8	5	3	5	4	6	4	5	8	7	5
58	4	2	3	5	3	6	1	5	6	7	6	10	2	7	4	8
59	5	6	4	1	4	4	2	7	8	8	6	9	7	9	8	7
60	1	7	8	8	4	6	4	5	8	8	6	7	7	10	6	6

Table XVI.-

Raw Data, Sten Scores, Form B of the Sixteen Personality Factor Questionnaire for the Control Group.

	Sten Scores for Factors 1 - 16															
S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	9	5	1	8	9	2	2	4	6	9	5	9	3	4	1	10
2	6	3	1	7	6	8	1	3	5	3	3	7	9	10	7	10
3	5	4	3	8	3	6	3	5	7	4	3	7	3	6	7	9
4	8	3	7	4	5	5	2	3	5	3	4	6	3	6	5	9
5	6	5	7	3	6	5	3	4	3	8	6	3	7	6	5	4
6	3	5	6	3	4	4	2	8	6	4	8	6	7	7	4	8
7	9	8	1	7	9	7	4	3	8	4	6	4	4	6	6	4
8	10	5	6	5	4	5	7	6	2	3	9	6	9	8	7	5
9	5	3	2	10	4	7	1	6	6	7	6	8	2	3	1	10
10	9	3	6	1	4	5	6	5	6	6	3	2	5	6	8	6
11	7	4	2	2	4	6	7	8	7	6	8	4	8	4	6	4
12	7	4	8	5	4	4	4	6	3	3	8	3	7	6	3	1
13	5	5	3	4	4	4	1	5	4	8	4	3	5	4	6	7
14	5	1	2	2	4	4	3	5	8	4	1	7	6	7	6	6
15	4	3	1	2	4	8	1	6	6	9	5	7	5	9	5	7
16	7	2	1	6	4	7	1	6	8	8	8	8	3	7	4	9
17	8	7	6	7	5	3	5	7	2	5	7	5	5	3	10	3
18	7	2	1	5	5	7	3	6	8	5	3	9	2	9	3	10
19	8	2	4	3	6	5	3	6	8	6	6	6	6	8	4	9
20	7	7	6	3	3	5	7	6	7	4	6	3	7	4	7	4
21	9	7	1	3	4	5	4	3	8	6	4	8	5	5	3	7
22	2	8	6	2	3	5	1	7	8	4	3	4	8	7	6	5
23	7	2	6	2	4	4	5	7	4	4	4	4	3	6	6	2
24	7	2	1	2	1	7	1	6	8	4	2	8	3	8	3	8
25	5	4	7	6	6	4	4	4	2	4	6	3	7	9	8	4
26	7	1	4	9	7	2	6	4	2	10	6	6	6	5	4	6
27	7	4	6	2	10	6	2	6	8	6	4	6	5	5	1	7
28	7	3	9	1	3	7	4	4	5	10	3	6	8	3	8	4
29	4	5	6	3	3	5	5	7	8	6	8	5	5	9	7	5
30	7	1	2	8	6	5	4	3	6	8	4	8	7	6	2	6
31	5	7	4	4	5	4	3	6	5	7	7	6	8	7	2	8
32	6	2	2	5	5	5	2	6	7	6	6	8	6	7	2	8
33	8	2	6	2	1	5	4	7	4	8	8	4	5	7	6	5
34	5	3	8	1	3	7	1	6	4	4	1	7	5	6	7	5
35	7	2	2	3	6	7	3	6	7	8	4	9	3	6	2	10
36	7	3	6	2	6	6	3	4	5	6	3	3	5	9	7	7
37	3	3	2	7	3	7	3	6	7	4	8	8	6	8	4	7
38	5	1	6	6	5	5	3	5	8	7	4	6	3	3	5	7
39	2	3	1	5	7	7	1	3	6	4	3	10	3	6	1	10

Table XVI (Continued)

Raw Data, Sten Scores, Form B of the Sixteen Personality Factor Questionnaire for the Control Group.

S	Sten Scores for Factors 1 - 16															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
40	5	7	8	9	6	4	6	2	7	3	8	4	5	4	4	4
41	6	1	3	6	4	3	5	6	7	6	3	7	6	8	4	6
42	7	1	2	2	4	4	1	7	7	10	4	9	2	7	2	6
43	6	7	6	5	7	6	5	6	3	4	7	5	8	3	5	4
44	6	7	2	9	5	7	10	6	7	8	6	4	7	7	6	6
45	10	8	6	3	6	5	8	4	3	6	7	6	8	2	3	5
46	7	5	7	8	4	8	6	6	4	4	5	1	3	3	8	2
47	8	4	3	4	8	5	6	5	5	4	4	6	3	5	2	9
48	6	8	7	5	3	6	6	7	3	5	7	5	5	4	10	1
49	6	5	3	7	9	3	4	7	6	8	8	8	8	6	6	7
50	10	1	6	2	3	5	4	8	6	6	3	6	6	5	4	6
51	5	3	7	1	3	6	4	3	5	6	1	8	7	4	4	6
52	7	5	7	3	1	8	3	6	5	4	6	3	2	7	3	3
53	5	1	4	7	6	2	3	7	9	10	4	8	3	9	3	6
54	7	1	3	6	8	3	4	9	8	10	6	8	7	6	2	8
55	8	4	1	2	5	6	1	8	8	7	5	9	7	8	5	10
56	9	3	1	3	6	7	3	3	8	8	6	6	5	6	5	7
57	5	2	1	5	6	4	6	8	6	6	6	6	3	4	3	7
58	5	2	1	1	4	4	1	4	7	6	4	10	4	7	5	8
59	8	7	2	3	5	7	1	6	7	4	6	8	9	6	3	10
60	5	5	4	6	7	6	3	6	6	5	5	6	2	9	6	8

Table XVII.-

Raw Data, Sten Scores, Form A of the Sixteen Personality Factor Questionnaire for the Experimental Group.

	Sten Scores for Factors 1 - 16															
S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	7	6	1	2	2	1	1	9	10	8	1	10	5	8	2	10
2	4	2	1	7	5	4	4	2	8	8	9	10	7	6	3	10
3	3	4	1	7	3	4	1	4	9	9	6	6	7	10	1	9
4	2	8	2	4	2	6	3	4	10	9	3	9	4	8	7	10
5	9	1	4	3	3	6	7	7	5	8	8	7	5	8	8	8
6	2	3	6	7	7	3	10	7	8	9	6	8	3	4	8	8
7	6	7	1	5	2	2	3	8	6	6	6	5	8	8	8	4
8	5	3	4	5	4	6	7	8	2	7	7	5	2	6	7	5
9	8	4	8	2	4	4	7	6	4	5	3	2	5	5	5	1
10	6	3	4	7	3	5	7	5	5	9	5	6	8	10	10	6
11	6	2	4	6	3	4	6	8	5	8	7	5	6	5	7	7
12	5	5	4	3	5	3	4	7	8	6	6	7	2	8	4	8
13	4	7	7	4	3	1	4	5	6	9	4	7	3	5	2	7
14	6	3	3	5	4	4	8	5	10	7	7	6	3	5	7	6
15	7	2	3	5	8	3	1	9	10	10	1	10	5	7	5	8
16	6	6	5	4	5	1	2	9	8	3	2	10	5	8	6	7
17	4	6	7	4	3	4	5	5	7	7	5	7	8	9	8	5
18	6	3	5	4	7	4	7	7	8	6	6	7	5	4	3	5
19	3	3	1	8	9	2	4	8	9	8	6	10	4	5	2	10
20	5	3	4	2	6	4	6	8	6	8	4	8	4	5	6	6
21	7	2	9	3	3	4	8	8	5	8	4	3	4	5	10	5
22	8	5	8	4	4	6	8	3	4	4	8	3	4	4	8	1
23	2	3	2	3	6	4	4	6	8	9	6	7	6	10	8	8
24	6	4	7	8	9	6	5	5	3	6	6	6	8	8	6	8
25	3	2	1	1	5	3	5	7	8	6	7	7	4	5	5	8
26	5	4	2	3	2	4	3	3	9	8	6	9	4	5	5	5
27	6	3	9	7	9	6	10	5	5	4	5	7	3	3	6	1
28	5	2	4	5	5	3	4	7	8	9	6	10	3	7	3	10
29	9	3	1	5	3	2	5	8	6	7	5	9	7	6	3	7
30	5	9	4	7	4	4	3	3	6	9	5	9	7	5	4	9
31	5	6	4	2	4	3	6	6	6	10	3	6	4	8	7	7
32	9	3	2	4	4	4	5	7	9	10	4	10	2	8	6	8
33	5	3	2	5	1	4	5	7	5	10	6	9	6	7	5	7
34	5	2	2	4	2	3	4	7	9	7	7	8	5	8	7	8
35	2	7	7	8	5	1	4	7	10	9	9	9	7	9	5	10
36	2	5	1	4	3	7	2	5	5	9	8	3	5	7	5	7
37	6	4	3	7	6	5	7	8	8	6	7	7	5	4	5	6
38	7	4	4	3	3	6	5	8	7	5	7	10	7	8	6	9
39	3	5	7	3	2	7	3	5	8	9	6	7	8	8	8	9

Table XVII (Continued)

Raw Data, Sten Scores, Form A of the Sixteen Personality Factor Questionnaire for the Experimental Group.

	Sten Scores for Factors 1 - 16															
S	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
40	2	3	9	4	3	3	8	7	4	4	7	6	7	7	9	4
41	5	6	1	9	10	3	7	4	9	10	8	7	1	4	3	5
42	3	4	2	7	4	6	5	3	5	5	8	8	3	9	5	10
43	4	2	9	5	3	2	5	6	6	8	4	6	5	8	8	5
44	4	5	3	7	8	1	1	5	10	8	5	9	7	6	3	7
45	9	6	2	10	7	1	8	9	9	5	3	10	3	7	2	10
46	5	2	5	7	2	7	7	6	5	8	6	3	3	5	7	6
47	4	4	1	2	2	4	4	5	6	9	7	8	2	8	9	5
48	6	4	4	7	3	6	6	6	8	9	7	7	8	10	6	8
49	6	2	7	3	4	9	9	4	3	4	6	6	8	4	9	3
50	8	5	1	2	4	4	7	8	7	5	4	8	7	6	5	8
51	6	8	1	6	7	1	4	9	5	10	3	5	6	6	4	10
52	5	5	7	5	5	4	8	5	6	4	6	5	5	3	8	5
53	5	4	1	7	5	2	6	7	10	10	6	9	6	8	1	10

Table XVIII.-

Raw Data, Sten Scores, Form B of the Sixteen Personality Factor Questionnaire for the Experimental Group.

S	Sten Scores for Factors 1 - 16															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	10	5	1	1	4	4	1	9	7	10	2	10	4	4	1	10
2	5	3	1	6	2	6	1	4	8	5	7	9	3	4	4	8
3	7	5	3	7	6	5	2	6	9	6	4	10	5	8	3	9
4	5	5	1	1	1	8	1	7	8	6	3	10	3	6	3	10
5	5	1	6	1	3	6	6	3	4	4	5	2	6	5	7	5
6	7	3	3	2	3	8	2	8	4	4	3	9	7	7	3	7
7	6	7	1	6	4	4	3	6	3	3	7	5	4	6	7	4
8	9	2	5	5	4	5	6	8	4	9	6	8	10	5	9	6
9	10	5	10	5	4	3	7	6	2	6	6	3	2	3	7	3
10	8	3	4	2	2	5	2	2	7	6	5	6	2	8	6	7
11	9	7	3	6	6	7	7	3	7	4	9	4	9	7	8	4
12	5	3	2	5	2	3	4	8	6	10	4	8	5	2	4	10
13	9	4	2	5	4	3	4	7	4	3	9	6	7	6	3	5
14	9	5	3	5	6	6	7	7	8	6	2	6	3	8	6	9
15	8	5	1	5	3	5	1	10	9	10	2	10	3	8	1	10
16	5	7	1	1	6	4	1	6	9	8	4	10	6	8	7	7
17	2	2	7	6	2	5	4	5	4	7	6	4	6	4	4	5
18	9	2	3	2	4	7	5	2	8	3	4	6	5	4	4	6
19	4	2	2	2	9	7	2	8	6	6	2	9	3	6	1	10
20	7	5	7	6	5	6	7	7	3	8	5	7	7	6	8	4
21	7	7	7	4	6	7	7	3	4	6	6	3	6	4	7	3
22	6	7	6	6	2	8	7	6	4	6	4	4	8	4	8	2
23	6	2	1	1	3	4	1	7	8	4	6	8	5	5	2	8
24	8	3	4	5	5	7	7	7	8	5	7	4	3	6	4	10
25	5	1	6	3	7	5	4	3	6	8	4	6	7	4	4	7
26	4	2	1	1	6	3	1	7	8	6	6	5	7	8	1	7
27	9	7	7	6	10	5	9	3	8	4	4	7	6	3	6	5
28	6	1	1	1	1	6	1	3	8	7	5	9	3	8	1	10
29	8	1	4	6	5	4	4	6	7	10	2	8	4	9	5	7
30	3	5	1	9	5	5	2	5	5	4	6	8	3	4	2	10
31	9	7	6	2	7	7	4	3	5	4	6	6	3	7	8	6
32	10	2	4	2	5	5	3	6	6	7	8	8	8	8	3	6
33	7	4	5	6	5	5	6	7	5	6	6	4	6	5	6	2
34	8	3	2	6	4	5	4	7	6	6	7	6	5	6	6	6
35	4	1	1	5	10	7	2	1	9	3	6	9	7	6	2	10
36	6	2	6	6	6	4	1	4	8	4	4	8	5	7	7	8
37	5	7	4	7	10	3	6	3	5	7	7	6	7	1	1	8
38	8	2	1	4	4	7	5	6	6	7	6	8	5	6	4	10
39	7	7	2	5	2	7	1	6	4	4	6	7	8	6	6	7

Table XVIII (Continued)

Raw Data, Sten Scores, Form B of the Sixteen Personality Factor Questionnaire for the Experimental Group.

S	Sten Scores for Factors 1 - 16															
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
40	8	5	2	3	8	5	6	6	8	4	7	3	5	2	3	3
41	5	3	2	8	8	4	6	6	9	6	8	10	3	2	3	10
42	3	3	3	2	3	7	2	6	8	3	6	9	7	4	2	10
43	5	4	7	10	5	4	3	3	8	9	4	4	6	10	3	4
44	9	2	1	5	8	7	3	3	8	3	6	7	3	6	3	10
45	10	5	4	6	10	1	6	4	8	5	6	8	7	8	2	10
46	3	4	7	6	2	7	5	8	4	5	9	6	3	5	7	3
47	3	3	7	5	5	4	5	3	5	6	3	5	2	6	7	4
48	2	3	4	5	2	5	5	2	10	5	7	7	9	9	8	7
49	5	4	8	2	2	6	9	7	4	6	4	1	7	6	10	1
50	7	1	3	4	5	5	5	6	5	4	5	6	7	6	3	7
51	10	5	1	7	6	4	8	3	8	4	8	7	1	6	1	10
52	5	4	7	5	4	4	5	6	4	3	8	6	5	6	6	2
53	8	2	1	10	10	6	5	4	9	5	6	10	7	7	1	10

Table XIX.-

Raw Data, Chronological Ages in Months, Intelligence Quotients, Number of Job Changes, Court Calls, and Sick Calls for the Control Group During the Period of Time Covered by the Study.

Subject	Age	I.Q.	Job Changes	Court Calls	Sick Calls
1	245	116	0	8	2
2	411	116	0	0	3
3	323	94	0	0	1
4	311	119	0	0	1
5	380	95	0	5	1
6	351	111	0	1	0
7	307	121	0	5	0
8	393	109	0	1	0
9	408	92	0	4	4
10	369	83	0	3	0
11	297	119	0	3	9
12	411	102	0	0	0
13	361	111	0	0	0
14	311	98	0	1	0
15	278	124	0	4	7
16	388	94	0	3	0
17	356	113	0	5	0
18	318	121	0	1	6
19	303	84	0	1	10
20	386	91	0	1	0
21	404	122	0	0	1
22	300	100	0	4	1
23	349	122	0	1	1
24	359	95	0	0	3
25	250	126	0	2	0
26	416	88	0	0	1
27	276	111	0	8	3
28	415	81	0	0	0
29	309	108	0	13	0
30	299	97	0	3	0
31	417	91	0	0	1
32	311	104	0	3	0
33	401	85	0	1	0
34	376	114	0	2	1
35	328	111	0	5	0
36	271	120	0	2	2
37	345	96	0	2	0
38	270	101	0	7	0

Table XIX (Continued)

Raw Data, Chronological Ages in Months, Intelligence Quotients, Number of Job Changes, Court Calls, and Sick Calls for the Control Group During the Period of Time Covered by the Study.

Subject	Age	I.Q.	Job Changes	Court Calls	Sick Calls
39	259	108	0	3	2
40	256	95	0	4	0
41	407	86	0	1	0
42	289	99	0	2	1
43	331	84	0	0	2
44	336	102	0	2	2
45	300	88	0	1	1
46	358	104	0	2	0
47	388	121	0	1	1
48	408	122	0	1	3
49	363	134	0	0	7
50	374	94	0	0	5
51	292	132	0	0	1
52	394	121	0	0	8
53	301	111	0	0	4
54	262	116	0	1	2
55	288	100	0	0	5
56	400	126	0	0	0
57	315	119	0	0	2
58	325	94	0	1	7
59	403	102	0	0	3
60	345	133	0	0	2

Table XX.-

Raw Data, Chronological Ages in Months, Intelligence Quotients, Number of Job Changes, Court Calls, and Sick Calls for the Experimental Group During the Period of Time Covered by the Study.

Subject	Age	I.Q.	Job Changes	Court Calls	Sick Calls
1	348	111	3	2	8
2	313	95	3	2	9
3	409	91	3	1	4
4	412	92	3	2	3
5	411	82	3	0	0
6	414	121	3	7	0
7	388	118	3	7	0
8	296	95	4	5	7
9	405	102	3	7	2
10	374	82	3	2	2
11	269	121	3	6	7
12	309	117	4	5	7
13	403	121	5	0	0
14	408	96	7	10	3
15	406	117	7	3	4
16	314	109	5	11	3
17	330	108	4	2	5
18	268	85	3	4	5
19	340	119	3	3	0
20	373	127	3	2	1
21	363	121	3	3	0
22	420	101	5	1	7
23	265	84	3	6	0
24	337	131	3	6	0
25	417	86	3	3	1
26	265	116	3	11	1
27	344	123	3	7	3
28	320	86	4	0	4
29	347	88	3	3	2
30	274	127	3	2	2
31	409	113	3	2	6
32	274	84	4	9	5
33	416	85	4	0	3
34	322	106	5	4	2
35	277	117	5	6	1
36	416	109	4	6	4
37	416	122	3	4	0
38	391	84	5	4	4

Table XX (Continued)

Raw Data, Chronological Ages in Months, Intelligence Quotients, Number of Job Changes, Court Calls, and Sick Calls for the Experimental Group During the Period of Time Covered by the Study.

Subject	Age	I.Q.	Job Changes	Court Calls	Sick Calls
39	299	133	3	0	1
40	321	101	3	2	2
41	371	123	3	1	31
42	373	135	3	2	26
43	342	117	3	1	12
44	306	126	3	1	28
45	371	129	3	0	6
46	388	122	4	1	12
47	405	116	3	0	3
48	398	112	3	2	11
49	348	102	4	1	5
50	291	107	4	1	10
51	372	126	3	0	4
52	285	101	7	3	0
53	340	98	4	2	0

APPENDIX 2

ABSTRACT OF

A Study of Personality Traits in Relation to Job Instability of Inmates in the Ohio Penitentiary[1]

The behavior of a minority of inmates at the Ohio Penitentiary is characterized by frequency of job changes. The resulting labor turnover causes a number of problems which affect both the administrators of the prison as well as the inmates themselves.

This study attempted to identify personality trait differences which might discriminate between those inmates having a history of job instability in the institution as compared with those inmates having no such history. The instrument used for this research project was the Cattell Sixteen Personality Factor Questionnaire.

Many Studies of labor turnover have been made using non-prison populations. Various social, economic, and environmental factors were found to be associated with the phenomenon. These factors were, to a large extent, held constant by the nature of the milieu in which this research project was carried on.

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1 Stanley J. Blackledge, doctoral thesis presented to the School of Psychology and Education of the University of Ottawa, Ontario, October 1960, p. vii-95.

The subjects used in this study were male, white prisoners between the ages of twenty and thirty-five who were literate and possessed dull-normal intelligence or better.

The experimental group consisted of fifty-three subjects who had a minimum of three job changes during a one year period of incarceration. The control group consisted of sixty subjects who had no job changes during an equivalent period of time. Although no attempt was made to match the two groups for intelligence or for chronological age, it was found that there were no significant differences between the groups in regard to these two variables.

Equivalent forms of the instrument used were administered to both groups at an interval of one week. The personality factors of proven reliability were then used to compare the two groups. No significant differences in personality traits were found to exist.

It might be assumed that the categorization of the subjects according to the number of job changes involved no psychologically important behavioral criterion. This hypothesis is untenable, however, since other data revealed that the experimental group had significantly more court calls and sick calls than did the control group.

A more probable explanation for failure to reject the null hypothesis is that both groups tended to answer the test items in a manner which they believed the statements should

have been answered rather than in the way which would have reflected their true beliefs.

Since the phenomenon of labor turnover in relation to personality trait variables is so little understood and since it presents a serious administrative problem in the prison setting, further research is indicated. It is possible that other instruments than the one used for this study may provide some degree of insight into the problem.

The behavioral disparity which was found between the two groups suggests that personality trait differences do exist. Other approaches may be more fruitful in revealing them.