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QUANTITATIVE ANALYSIS OF ADJUSTMENT TO THE PRISON COMMUNITY¹

MARVIN E. WOLFGANG

The author, who is Associate Professor of Sociology in the University of Pennsylvania, is a frequent contributor to this *Journal* as well as other periodicals of interest to criminologists.

As an outgrowth of his publication in 1958 of *PATTERNS IN CRIMINAL HOMICIDE*, an analysis of a large number of Philadelphia murderers, Dr. Wolfgang commenced a study of the post-offense adjustment of the individuals studied. Here, he reports on the adjustment of a select group of these offenders to life in a Pennsylvania maximum security institution. After describing his construction of an index by which adjustment or maladjustment could be measured, Dr. Wolfgang presents his findings which indicate that there are significant associations between adjustment and inmates (1) who are 35 years of age or older, (2) who are or have been married, (3) whose murders were other than felony murder, and (4) who have had some previous penal experience.—EDITOR.

PURPOSE AND SETTING

Adjustment of the inmate to the prison subculture is an important topic in penological literature. Interesting descriptive analyses of the problems inmates face in adjusting to a unisexual, restricted environment have added to our insights about this phenomenon. However, as in any area of investigation in the behavioral sciences, difficulties of establishing operational definitions have delayed reliable accumulations of similar knowledge in a variety of institutions and among diverse groups of inmates. Empirically objective, quantitative data that can readily be collected and communicated in like ways by observers engaged in similar research in different institutions are necessary if the problems of adjustment to the prison subculture are adequately to be understood.

The purpose of the present study is two-fold: (1) as a pilot study of the offender after the crime, to follow up the adjustment patterns of persons who have been convicted of and incarcerated for having committed murder; (2) to provide an index of prison adjustment that is based upon an em-

pirically quantitative analysis and that affords opportunity for replication and expansion of the research design constructed around this index.

This study is the outgrowth of a previous research that analyzed 621 offenders in criminal homicide in Philadelphia, Pennsylvania, between January 1948 and December 1952. In *Patterns in Criminal Homicide*² information regarding the victim-offender relationship and a variety of sociological data about each offender were collected from the files of the Philadelphia Homicide Squad. As part of a larger study designed to follow up each of 387 of these offenders throughout his post-offense episodes,³ the present research includes analysis of a select segment of the original group. The present universe comprises all males from the original study who were committed to the Eastern State Penitentiary (Philadelphia, Pennsylvania) for first or second degree murder and who are now serving sentences in this institution. Females, juveniles, those who committed suicide, were declared insane, were transferred elsewhere, or who had been released from the penitentiary—all of whom had committed some type of criminal homicide—are not included in this report, although they will be discussed in a later publication. The instant universe is composed of 44 male murderers (9 white, 35 Negro) presently serving time (in all but two cases, a life sentence) in a maximum security institution.

² WOLFGANG, *PATTERNS IN CRIMINAL HOMICIDE* (1958).

³ Excluding those acquitted by court trial, those who were fugitives, declared insane, committed suicide, etc., 387 persons were traced who actually were sentenced to serve a term of imprisonment.

¹ This article is part of a larger work that will fully analyze the offender after the crime.

This study of post-offense adjustment is being supported by a University of Pennsylvania Faculty Research Grant. The author wishes to express his gratitude to the Committee on the Advancement of Research; to the administration of the Eastern State Penitentiary, Philadelphia, Pennsylvania, particularly to W. J. Banmiller, superintendent, and to F. Petri, in charge of records; and to Aram Terzian and Lawrence W. Johnson, Jr., who assisted in the early phases of this study.

This article is an extended version of a paper read before a meeting of the Eastern Sociological Society in New York City on April 23, 1960.

To determine relative degrees of prison adjustment by type of offense it would be necessary to compare the murder group with the rest of the prison population. In effect, for the moment we are holding offense constant and analyzing the subuniverse of convicted murderers, making internal comparisons relative to age and several other variables.

Space limitations prevent a full description of the prison community at the Eastern State Penitentiary. Suffice it to say that as a maximum security institution, the physical and social environment, administrative regulations, and inmate subculture probably do not operate on the inmate population in ways significantly different from other maximum security institutions.⁴ It should perhaps be noted that unlike many other prisons there is a prevailing lack of tension and a feeling both among guards and inmates of ease of mobility and of general relaxation within the confines of the prison. Without losing control of the nearly one-thousand inmates of this historically important⁵ and old (since 1829) penitentiary, the administration permits a considerable amount of freedom throughout the radial cell blocks.⁶ A capable treatment program and a progressive administration operate within an archaic architecture.

PREVIOUS RESEARCH

The topic of prison adjustment has previously been examined, although most studies have been of a descriptive, heuristic type or have compared diverse groups of offenders in prison by using personality and intelligence tests. Some studies have been descriptive sociological contributions that are qualitative analyses without numbers or test statistics. The brief review that follows is only cursory and meant as a selective indicator of the types of previous studies made in the field. Reference to them is primarily to function as a guide to other research on prison adjustment. There are differences in the quality of items mentioned; some of the studies were not princi-

pally designed to measure or even to discuss adjustment. The reader is strongly urged to evaluate these studies for himself if he hopes to make use of them in adjustment analyses.

There are two major orientations in research analysis of prison adjustment: (1) psychological, and (2) sociological. The first of these attempts to relate intelligence and personality traits to prison conduct and studies have been primarily devoted to establishing profiles of psychological deviants by comparing test scores with a standardized "normal" population. Only occasional and oblique reference is made to the concept of behavioral adjustment to the prison subculture. Even when made, there is usually some circularity of reasoning involved in the analysis, i.e., some prisoners are deviant personalities, as measured by psychological tests designed to determine deviancy, and these inmates are behaviorally maladjusted in the prison environment because their personality tests reveal them as deviants. When reference to misconduct in prison appears, failure to measure the amount or degree of misconduct is common. In the use of personality and intelligence tests these psychological studies display elements of quantification and precision that are desirable for descriptive and comparative analyses as well as for the application of test statistics. However, precision in this area is offset by the lack of quantification in the discussions of behavioral adjustment.

Hand and Lebo⁷ found that boys with low personality scores were poorly adjusted to the demands of institutional discipline while boys with high personality scores were found to be infrequent violators of institutional rules. Although Horsch and Davis⁸ found no relationship between sociability and misconduct, these authors noted that the self-confident, dominant, "thick-skinned" individual is more likely to run counter to institutional discipline than the self-conscious, submissive, and emotionally unstable individual. Shearer and Barbash⁹ discovered that men convicted of murder, sex offenses, and assaults had the best work histories or job stability. Intelligence and skill level differentials were noted among these

⁴ See, e.g., CLEMMER, *THE PRISON COMMUNITY* (1940); SYKES, *THE SOCIETY OF CAPTIVES* (1958); OHLIN, *SOCIOLOGY AND THE FIELD OF CORRECTIONS* (1956); Haynes, *The Sociological Study of the Prison Community*, 39 J. CRIM. L. & C. 432 (1948).

⁵ TEETERS & SHEARER, *THE PRISON AT PHILADELPHIA, CHERRY HILL* (1957).

⁶ For an enlightening discussion of this kind of prison architecture throughout the world, see JOHNSON, *THE DEVELOPMENT OF RADIAL PRISONS: A CASE STUDY IN CULTURAL DIFFUSION* (Unpublished doctoral dissertation, University of Pennsylvania, 1958).

⁷ Hand & Lebo, *Predicting the Institutional Adjustment of Delinquent Boys*, 45 J. CRIM. L., C. & P.S. 694 (1955).

⁸ Horsch & Davis, *Personality Traits and Conduct in Institutionalized Delinquents*, 29 J. CRIM. L. & C. 241 (1938).

⁹ Shearer & Barbash, *Occupational Adjustment and Crime*, 29 OCCUPATIONS 114 (1950).

groups, but examination of emotional factors revealed no significant differences. At Sing Sing, Stanton¹⁰ found significant differences on all the clinical scales of the MPPI when he compared prisoners with "normals" on whom the test was standardized. The more socially deviant individuals were found to be more psychologically deviant, although the question of prison adjustment was not fully explored.

Caldwell¹¹ noted in his study that the murderers conformed to a basic personality pattern and social type. Both Negroes and whites had exceptionally high mean scores on the Psychopathic Deviate Scale of the MMPI while the former also had high scores on the Schizophrenic and Psychasthenia Scales. The white murderer, he contended, is superior to the Negro murderer in intellectual ability and the Negro murderer excels in the expression of feminine patterns of behavior and schizoid tendencies. Adjustment or maladjustment to the prison community was not related to these observed differences.¹²

In a sample of 225 inmates at the Eastern State Penitentiary in Philadelphia, and using the Rosenzweig Picture-Frustration Study, the Guilford-Martin Personnel Inventory, the Scovill Classification Test, and the Stanford Achievement Test, Morello¹³ explored the individual personality structure and trends in patterns of such structuralization during time intervals of incarceration, especially in terms of the prisoners' reactive and adjustive techniques. Among other interesting findings, Morello noted that "non-Caucasian prisoners showed no trend toward becoming either more or less well-adjusted as the length of incarceration increased. However, the Caucasians showed a definite trend toward becoming less well-adjusted in relation to the length of incarceration."¹⁴

The sociological contributions to an understanding of prison adjustment have been more directly

related to the issue. They are usually attempts to relate social variables, such as marital status, pre-institutional work history, inmate informal social structure, etc., to adjustment in prison. Descriptions often are detailed with case histories as illustrative clarifications of concepts that give meaning to the dynamic interaction between adjustment and the social correlates of adjustment. Most of these sociological studies are qualitative, without the use of numbers, and although generally enlightening researches, they render difficult establishing replications that would seek to extend the time and space dimension of their conclusions. However, these studies present abundant and insightful suggestions for empirical research designs that have not been sufficiently followed up by criminologists.

Caldwell describes the major factors involved in life in a prison subculture, among which are a deeply-entrenched status hierarchy, a well-developed formal prison organization, and an informal social system.¹⁵ The degree of prisonization as shown by Clemmer¹⁶ is believed to be influenced by the inmate's personality, his social relationships prior to incarceration, affiliation with an informal group, type of work placement, and acceptance or rejection of the prisoner code. Clemmer's study of socialization in the prison community still stands as one of the most probing and provocative in the field. The problem of adjustment to the prison environment in terms of the process of prisonization is discussed in descriptive detail. The influence of aspects of this process appears to depend upon the length of incarceration as much as on the personality of the inmate. Adjustment to the "pains of imprisonment" is described with similar sociological insight by Sykes,¹⁷ but as is the case with Clemmer's analysis, empirical verification and replication are difficult to achieve.

Contradiction in the problem of adjustment to the subsociety of a prison constitutes the focus of an analysis by McCorkle and Korn.¹⁸ As these authors suggest, if the major adjustive function of the inmate social system is to protect members from the deleterious effects of internalizing social

¹⁰ Stanton, *Group Personality Profile Related to Aspects of Anti-Social Behavior*, 47 J. CRIM. L., C. & P.S. 340 (1956).

¹¹ Caldwell, *Personality Trends in the Youthful Male Offender*, 49 J. CRIM. L., C. & P.S. 405 (1959).

¹² The critical remarks of Schuessler and Cressey regarding the use of personality tests on prisoners is too well known to need further reference here. See Schuessler & Cressey, *Personality Characteristics of Criminals*, 55 AM. J. SOC'Y 476 (1950).

¹³ MORELLO, A STUDY OF THE ADJUSTIVE BEHAVIOR OF PRISON INMATES TO INCARCERATION (Unpublished doctoral dissertation, Temple University, 1958).

¹⁴ *Id.* at 73.

¹⁵ Caldwell, *Group Dynamics in the Prison Community*, 46 J. CRIM. L., C. & P.S. 648 (1956).

¹⁶ CLEMMER, *op. cit. supra* note 4, at 298-320.

¹⁷ SYKES, *op. cit. supra* note 4, at 63-83.

¹⁸ McCorkle & Korn, *Resocialization Within Walls*, 293 ANNALS 88 (1954).

rejection, those experienced in social rejection benefit most and those whose value system is predominantly that of the non-criminal society have most difficulty adjusting to the inmate social system.

Driscoll¹⁹ has made one of the few efforts to develop a rating scale suitable for measuring the general behavior of the inmate. Like the present study, his rating method embodies principles of analysis of concrete behavior rather than general trait characteristics. An "adjustment rating scale" was devised on the assumption that four main areas determine adjustment: social factors, vocational factors, personal factors, and behavioral factors. Correspondence of the scale with bad conduct reports was found to be significant at the one per cent level. Procedures for acquiring the kind of information used in construction of the scale are inadequately reported, however, and replication of the study is thereby rendered difficult. Most of the 60 prisoners were incarcerated for a period of about one year, which is a relatively short time compared to the mean of slightly over eight years among the murderers in the present study. Nonetheless, similarities in the adjustment patterns will be noted as further references to Driscoll's findings appear below.

Abundant provocative insights into the problems of institutional and post-institutional adjustment may, of course, be found in studies by Sellin,²⁰ the Gluecks,²¹ Ohlin,²² Haynes,²³ Coulter,²⁴ Train,²⁵ Foreman,²⁶ Altus,²⁷ De Stephens,²⁸

Zuckerman, Barron, and Whittier,²⁹ Barker and Adams,³⁰ Kirkpatrick,³¹ and others. In later analyses of the present murderer group and when a larger universe as well as more variables can be examined, these studies that concern adjustment patterns of prisoners and of released persons will be of major value in the construction of empirically testable hypotheses.

THE PRISON ADJUSTMENT INDEX

Defining and measuring adjustment in any cultural setting is a difficult task.³² A prison environment at least has fewer accouterments than general community living, fewer variables external to the individual that need be accounted for. But it is this very condition of absence of the normal social milieu and the presence of a multitude of diurnal strictures that comes to pall on the individual psyche and in due time produces the process commonly referred to as prisonization. For the ninety-five per cent or more of the prisoners who will ultimately be released, we are still doubtful about the benefits of their adjustment to prison life and the ends to which society hopes they will adjust. A successful treatment program involves at least a minimum internalization by the inmate of the communal and legal value system. However, in this sense, adjustment is directed towards a new set of values that are meant to be employed in the culture at large, in the normal, free, interpersonal relationships between the sexes and among a diverse role-performing population. This kind of adjustment may or may not result in greater capacity of the individual to cope with the peculiarities of a prison culture. This problem has not been adequately and empirically studied, nor is the present research designed to solve it. That hardened criminals may present a behaviorally docile demeanor before the prison administration is too well known to document. On the other hand, from every perspective of custodial and treatment authorities—the administration of order and harmony, the smooth functioning of prison

¹⁹ Driscoll, *Factors Related to the Institutional Adjustment of Prison Inmates*, 47 J. ABNOR. & SOC. PSYCH. 593 (1952).

²⁰ Sellin, *The Criminal History of Released Prisoners*, 35 J. CRIM. L. & C. 223 (1944).

²¹ S. & E.T. GLUECK, *FIVE HUNDRED CRIMINAL CAREERS* (1930); *LATER CRIMINAL CAREERS* (1937); and *CRIMINAL CAREERS IN RETROSPECT* (1943).

²² OHLIN, *op. cit. supra* note 4, and also *SELECTION FOR PAROLE* (1951).

²³ Haynes, *op. cit. supra* note 4.

²⁴ Coulter & Korpi, *Rehabilitation Programs in American Prisons and Correctional Institutions*, 44 J. CRIM. L., C. & P.S. 611 (1954).

²⁵ Train, *Unrest in the Penitentiary*, 44 J. CRIM. L., C. & P.S. 277 (1953).

²⁶ Foreman, *Guide Theory for the Study of Informal Inmate Relations*, 34 SOUTHWEST SOC. SCI. QUART. 34 (1953).

²⁷ Altus, *Adjustment Items Which Differentiate Between Psychiatric Categories of Military General Prisoners*, 49 J. GEN. PSYCH. 292 (1953).

²⁸ DeStephens, *Initial Failures in Rehabilitation Among 16,965 Ohio State Reformatory Inmates*, 44 J. CRIM. L., C. & P.S. 596 (1954).

²⁹ Zuckerman, Barron & Whittier, *A Follow-Up Study of Minnesota State Reformatory Inmates*, 43 J. CRIM. L., C. & P.S. 622 (1953).

³⁰ Barker and Adams, *The Social Structure of a Correctional Institution*, 49 J. CRIM. L., C. & P.S. 417 (1959).

³¹ Kirkpatrick, *The Human Problems of Prison After-Care*, 21 FED. PROB. 19 (Sept. 1957).

³² HORST ET AL., *THE PREDICTION OF PERSONAL ADJUSTMENT* (1941).

industries, and the attitude of parole boards—the man who does not present serious problems to the prison staff, compared to one who does, is generally considered a better inmate and has better prospects for early release. Thus, using present administrative views of the inmate population, we can point to reasonably tangible and empirical criteria for determining adjustment. Whether these same criteria are in fact valid indications of adjustment upon release into the community can only be inferred from previous research; but the ultimate test will depend on subsequent study of the same men in their post-institutional experiences.

As in any research, operational terminology depends upon available data. Examination of prisoner files at the Eastern State Penitentiary provided three major mensurative devices for use in constructing an adjustment index that is based upon a behavioral image of the inmates. These devices include: (1) the number of jobs and the length of time a job was held by each inmate in prison; (2) the number of times an inmate was discharged from his job because of misconduct; and (3) the number of "bad" statements recorded by cell block guards. Rationale for the use of these particular items and the method by which a scoring device was established require further elaboration.

(1) *Number and duration of jobs—job stability.* When an inmate is first assigned a daily prison task, he may be improperly classified, job vacancies commensurate with his abilities and skill may not be available, or the staff may require his services elsewhere at a later date so that he is transferred. However, despite these potential vicissitudes of job change and time spent at a specific job, we may assume that they operate randomly among a given set of offender types. Moreover, a prisoner may ask for (and frequently receive) a job change because of displeasure with his job or his associates on the job, or because of a variety of other reasons. Hence, many changes over a course of time indicate considerable instability.³³ Because we are referring to job change made by the inmate upon request or by the administration because of misconduct of the inmate, the instability reflected is not that of the administration but that of the inmate himself. As McCorkle and Korn suggest, "The providing of jobs is a duty of prison officials and a right, rather than a privilege of inmates. Once assigned to a

job there are only a limited number of legitimate reasons for which an inmate may be fired."³⁴ Ohlin uses the inmate's work record to establish an experience table for parole prediction purposes, although "working life" is used to refer to the pre-institutional period of a man's life. Ohlin's classification is a combination of the proportion of a man's working life that he has been employed, and the frequency with which he has changed jobs.³⁵ For purposes of the prison adjustment index, we have modified the use of Ohlin's work record category, and have, of course, included only the work record during incarceration.

From the Work Assignment Record of every prisoner, it was possible to get information about the number of jobs and the length of time each inmate worked on a job. Because these forty-four murderers served slightly different amounts of time, some standardization was achieved by computing the mean number of months each inmate worked per job. After obtaining the mean number of months per job for the total group (29.09), single scoring units of measurement based on one-quarter standard deviations on either side of the mean were established.³⁶ Units of measurement based on one-quarter standard deviations were used to increase the refinement of differentials for scoring purposes. Larger deviations may provide equally valid units for purposes of simple dichotomization of the universe into adjusted and unadjusted. More extensive analysis, as is later expected with this group, will hope to use varying degrees of adjustment in conjunction with other variables. Hence the reason for the present procedure.

The following diagram illustrates the method used for obtaining the first part of the adjustment score relative to length of job:

\bar{X}						
-3	-2	-1	+1	+2	+3	
14.60	19.43	24.26	29.09	33.92	38.75	43.58

³⁴ McCorkle & Korn, *op. cit. supra* note 18.

³⁵ OHLIN, SELECTION FOR PAROLE 128 (1951).

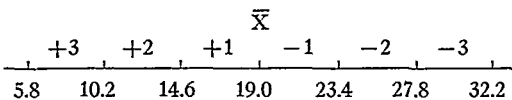
³⁶ Use of the median was considered, but this technique requires even more arbitrary decisions of partitioning for score units than does the use of the mean. The Likert technique could be employed to some advantage should larger numbers of items be used in the index. See Likert, *A Technique for the Measurement of Attitudes*, 140 ARCH. PSYCH. 5 (1932). See also Edwards & Kenney, *A Comparison of the Thurstone and Likert Techniques of Attitude Scale Construction*, 30 J. APPLIED PSYCH. 72 (1946), and Guttman, *A Basis for Scaling Qualitative Data*, 9 AM. SOC. REV. 139 (1944).

³³ Shearer & Barbash, *op. cit. supra* note 9.

On either side of the mean number of months per job for the total group (29.09) are located points of demarcation based on one-quarter standard deviation (4.83). Thus, \bar{X} plus .25 s.d. equals 33.92 months, and any inmate whose average job length was between 29.09 and 33.92 months was given a score of +1 for this item. If an inmate changed jobs more rapidly than the average for the group, his score would fall somewhere along the continuum on the minus side of the mean. For example, if his average job length was between 24.26 and 29.09 months, he received a score of -1; if between 19.43 and 24.26 months, his score was -2; and so forth.

(2) *Job dismissals for reason of misconduct.* Frequently an inmate is transferred to another job because of misconduct on the prison job. The necessity for this kind of administrative action is another indication of prison maladjustment, and the absence of transfer for this reason indicates adjustment to an important part of the prison culture. To account for variety in the number of jobs held by the forty-four murderers, the proportionate number of times each inmate was transferred for reason of misconduct was used (i.e., number of job dismissals divided by the number of jobs held) rather than the absolute number of job dismissals.

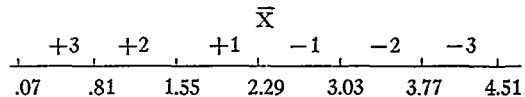
The diagram below illustrates the second part of the adjustment score:



On either side of the mean percentage of job dismissals due to misconduct among the total group (19.0%) are located points of demarcation based on one-quarter standard deviation (4.4%). Thus, \bar{X} plus .25 s.d. equals 23.4 per cent of jobs lost because of misconduct, and any inmate whose percentage was between 19.0 per cent and 23.4 per cent received a score of -1 for this item. We have assigned minus, or negative, scores for cases in which the percentage of job dismissals for misconduct is greater than the group average because such behavior is an expression of maladjustment. If an inmate was discharged from jobs because of misconduct in a percentage less than the group average, his score would fall somewhere on the plus side of the continuum. For example, if his percentage was between 14.6 and 19.0 he received

a score of +1; if between 10.2 and 14.6, his score was +2; and so on.

(3) *Block reports.* With some degree of periodicity (every three months) the guard of each cell block in the prison submits to the administration a checked list from a printed schedule of items that are presumed to indicate the good or bad conduct characteristics of each inmate. As McCorkle and Korn suggest, "Probably the most important and strategically placed individuals involved in the problem of reconstruction of attitudes are the cell block officers."³⁷ The cell block officer is expected to be constantly alert to the vagaries of inmate conduct and to be sufficiently insightful to give constructive information to the custodial and treatment staff of the institution. That he may falter in this task cannot be denied, but unless all cases of officer inadequacy, favoritism, or corruption could be detected, we are forced to assume a relative similarity of ability among these officers in making up their block reports for the inmates in their charge. We are assuming equality among the variety of bad statement types,³⁸ and only the number of bad statements about an inmate's conduct is included in this part of the adjustment score. Again, to account for the slightly different amount of time spent in prison, and consequently the differences in the number of block reports among the forty-four inmates, we have used the proportionate number of bad statements relative to the number of block reports (i.e., number of bad statements divided by number of block reports) as our measurement. Below is the diagram illustrating this procedure:



On either side of the mean number of bad statements for the total group (2.29) are located points of demarcation based on one-quarter standard deviation (.74). Thus, \bar{X} plus .25 s.d. equals 3.03,

³⁷ McCorkle & Korn, *op. cit. supra* note 18, at 93.

³⁸ Bad statements in block reports include such items as, "fights readily," "a wolf," "quarrelsome," "teases others," "argumentative," "insolent in manner," "tries to take liberties with officer," "loses temper quickly," etc. Serious misconducts or infractions of prison discipline (save where they resulted in job dismissal) were not used as criteria for the continuum because they did not supply sufficient data. The bad statements in block reports were found to be more numerous and sensitive to scaling.

and any inmate who received a number of bad statements, proportionate to the number of his block reports, that fell between 2.29 and 3.03 received a score of -1 . Again, for obvious reasons, we have assigned minus, or negative, scores for those cases in which the inmate average number of bad statements is higher than the group mean as an indication of maladjustment. A plus score indicates that an inmate's average of bad statements falls below that of the group. Because it is obviously impossible to have received fewer than zero-order of bad statements, the maximum plus score for this item is 4.

Adjustment Index. By obtaining the $\bar{X} \pm .25$ s.d. (1, 2, 3, . . . n) for each of the index items and scoring each inmate accordingly, the next step is simply to total the scores on the three continua, thus forming a composite of the score items, which is the prison adjustment index. The mean adjustment score for the group in question is .318, and the range from manifested³⁹ maximum adjustment to manifested maximum maladjustment is $+14$ to -26 .

Although the number of job dismissals because of misconduct and the length of time jobs were held may not always and in every case be entirely independent components, the results of their composite use in the index are not influenced by this apparent interdependence. The mean number of months on jobs held by inmates designated as maladjusted and who never had been dismissed from any job is only 9.4 compared to a mean of 20 months among maladjusted inmates who had been dismissed at least once from a prison job. Fifteen of the 17 maladjusted prisoners were dismissed 38 times; only 8 of the 27 adjusted men were dismissed 9 times. It is the fact of dismissal from a job (for reasons of misconduct) and the number of such dismissals that independently constitute important elements of the index. There appear to be no significant differences between the length of time on a job from which inmates were discharged because of misconduct and length of time on jobs from which they left for other reasons. The average amount of time inmates (adjusted and maladjusted combined) worked on jobs from which they were discharged for misconduct is approximately the same as the mean

number of months for all jobs held by all the inmates in our group (29 months). The jobs on which the *least* number of months were spent by inmates who had never been dismissed from a job had an average length of 22 months. It is, we should emphasize, the fact of dismissal and the number of dismissals that are independently significant factors in measuring adjustment to prison.

The three index items have been given equal weight in determination of the inmate's total composite adjustment score. In this way differences in a particular inmate's position are equally weighted and may even result in two diverse forms of behavior cancelling out one another to produce a balance. For example, one inmate may have been stable in his institutional jobs, in which case he would receive a positive score; but if he had been discharged several times from his jobs for misconduct, he probably would receive a negative score for that item. The block reports would most likely determine his final category of adjustment. On the other hand, a man who never was discharged for misconduct may have repeatedly changed jobs and his score may be quite similar to the previous case. These different situations make obvious the difficulties involved in using a single item to measure prison adjustment. There may in fact exist a single item such that measurement of it alone would be sufficient to determine general adjustment, either behavioral or psychological. Unless or until such an item is discovered, we are required to use several items in the index—but not so many that scoring becomes difficult, cumbersome, or raises too many questions about relative weighting of the items.

There are, of course, other variables that might be used in establishing an adjustment index. For example, from institutional files it may be possible to determine, as Ohlin did for parole prediction purposes, the extent of contact with members of the inmate's family, i.e., the number of prison visits and number of letters sent and received as an indication of cohesiveness of the family, which in turn may be presumed to be a reflection of prison adjustment. Emphasis on the behavioral and custodial image of adjustment obtained from the variables used in the present adjustment index might be tempered slightly by use of clinical records of the prison psychiatrist, psychologist, and social worker. Morello's previously mentioned study should prove useful for selection of ap-

³⁹ We say "manifested" because these have been observed and recorded data, whereas theoretical maxima scores of adjustment and maladjustment can be much greater.

appropriate psychological variables. A test of the degree of correlation between the variables used in the present adjustment index with those that might be components of a more psychologically oriented index would be valuable. If high correlation exists, then the more simple method of index construction would be adequate and perhaps more administratively practicable. Doubtful cases with low correlation could be reviewed more thoroughly to determine what factors need be further examined in order to improve the behavioral index.

The items included in the present study may not constitute the best selection from the universe of all factors involved in an inmate's adjustment to the prison. They are considered of value, however, because they combine data that are (a) part of the critical areas of activity in the prison community; (b) related to long time-spans of the inmate's daily activities; (c) involved in behavior that is under supervision by a member of the administrative staff; (d) mensurable; and (e) easily available.

SOME FINDINGS

The relatively small number of murderers under investigation in the present study makes sweeping generalizations a dangerous pastime. Detailed refinement of variables associated with inmates labeled "adjusted" or "maladjusted" is not possible until a larger number of offenders in criminal homicide is included in the research. We can, however, refer to several interesting findings based on the adjustment scores of the inmates studied by dichotomizing them into an adjusted and a maladjusted group.

Race and Adjustment. Morello, as noted above, found that whites became less well-adjusted as the time of incarceration increased, while no trends were observed among non-whites. No race differences of any kind emerge from the present analysis. Among the 27 adjusted murderers there are 5 whites and 22 non-whites; and among the 17 maladjusted there are 4 whites and 13 non-whites.

Length of Incarceration. The amount of time these offenders have been imprisoned appears to have no relationship to their adjustment pattern. The mean length of incarceration for the adjusted group is 8.7 years, and for the maladjusted group, 8.6 years.

Age and Adjustment. In their follow-up study of prisoners released from the Massachusetts Reformatory, Sheldon and Eleanor Glueck con-

tended that one of the most persistently important factors in reformation was the aging process.⁴⁰ For this adult group the authors referred to the "great divide" as occurring at the end of the thirty-fifth or beginning of the thirty-sixth year. That psycho-social and physiological changes occur in the individual passing through his thirties can hardly be denied. The Gluecks also spoke of a retrogression after the mid-thirties for the men observed in their postinstitutional life, but perhaps this accompaniment of growth or maturation operating within the relatively stable prison environment functions differently. Driscoll fails to report specific age differences in his study but did note that "observations carried out indicated that inmates rated as more maladjusted were significantly younger."⁴¹

Using age thirty-five as a theoretically meaningful age at which to dichotomize the inmates, we have hypothesized that a significantly higher proportion of prisoners over age thirty-five than those under thirty-five are among the adjusted group. Analysis of Table I confirms this hypothesis, for 81 per cent of the men over 35 years of age compared to only one-third under age 35 are among the adjusted group. Of the 17 poorly adjusted murderers, 12 are under age 35. Whatever other factors may be involved, there is no doubt that there is a significant association between age and prison adjustment for this particular group of offenders. The amount of time these offenders have been imprisoned appears to have no relationship to their adjustment. There is no significant difference in time of incarceration between the adjusted and maladjusted groups, nor between those over and those under 35 years of age. Hence, age of the inmate (and whatever physiological or psychological factors that accompany aging) is itself significantly related to adjustment in the prison subculture.

Marital Status. There appears to be no relationship between the present marital status of the inmate and his adjustment score, probably because all but two of these men have been committed on a life sentence and many who had been married were divorced by their wives since the men entered prison. The status of "ever having been married" may be important, however, for Clemmer suggests that marital relations prior to prison commitment

⁴⁰ S. & E.T. GLUECK, *LATER CRIMINAL CAREERS* 103-23 (1937).

⁴¹ Driscoll, *op. cit.* *supra* note 19, at 595.

TABLE 1
AGE AND ADJUSTMENT

	35 yrs. and over		Under 35 yrs.	
	N	%	N	%
Adjusted	21	80.8	6	33.3
Maladjusted	5	19.2	12	66.7
Total	26	100.0	18	100.0

$$\chi^2 = 10.12; P < .01; T = .48$$

TABLE II
MARITAL STATUS AND ADJUSTMENT

	Ever Married		Never Married	
	N	%	N	%
Adjusted	21	72.4	6	40.0
Maladjusted	8	27.6	9	60.0
Total	29	100.0	15	100.0

$$\chi^2 = 4.37; P < .05; T = .32$$

are positively associated with forming group relationships in prison. "It will be noted," he says, "that inmates who have been married are grouped less frequently than men who have always been single."⁴² Moreover, "ungrouped inmates tend to commit more infractions of the prison rules than do grouped inmates, although the differences are small."⁴³ Driscoll also says that the maladjusted in his study contained a significantly larger number of single men.⁴⁴

If it is true, as Clemmer notes, that inmates who have been married are grouped less frequently, and if the ungrouped commit more infractions of prison rules, we would expect our married group to be less adjusted than the unmarried. The data in Table II show, however, that there is a significant association between adjustment and the status of ever having been married in the past. This association, although far from being spurious, must be viewed in terms of the foregoing discussion of age and adjustment. Cell size for statistical purposes becomes too small to subdivide simultaneously into adjusted/maladjusted, over 35 yrs./under 35 yrs., and ever married/never mar-

ried. However, we may note that of the 26 inmates over age 35, 24 had been married, and 19 of these 24 are among the adjusted group. Of the 18 under age 35, 13 had never been married, and 9 of these 13 are among the maladjusted group. Comparison of the *degree* of association by Tschupproff's (coefficient of contingency) value shows that age and marital status ($T = .67$) has a higher degree of association than does adjustment and marital status ($T = .32$), while age and adjustment ($T = .48$) is in an intermediary position. It appears, therefore, that age more than the status of ever having been married is related to prison adjustment but that the three variables are interrelated.

Felony Murder. In Pennsylvania, death that occurs during the commission of a robbery, burglary, arson, rape, or kidnapping is by statute considered murder in the first degree. A killing that involves a close victim-offender relationship such as a husband killing his wife, other relative or intimate associate is most likely to be performed by one whose life orientation is directed toward general adherence to the legal norms of the community. Commission of a felony murder by definition indicates that the offender violated the legal norms other than by killing.

We are suggesting that persons who commit a felony murder have less fully internalized a value system built upon adherence to the law in general than have persons who have not committed a felony murder. The non-felony murderer is more likely to be an episodic offender; in his daily interaction with others, he obeys and generally accepts the norms of conduct of the prevailing, predominant culture that surrounds him, that writes the laws and adjudicates deviations. In prison the predominant, norm-codifying administration represents for him the legal proscriptions and restraints that generally governed his conduct before his instant offense.

The felony murderer, on the other hand, is more likely to have attitudes favorable to violation of the law. The fact that his conviction for murder is partly based upon the concomitance of homicide and another serious felony suggests that he is a criminal irrespective of the death he caused; and that he is sufficiently far removed from the proscriptions of the general and predominant culture values opposed to robbery, burglary, rape, etc., that he considers law-breaking a solution to problem situations. He takes this same attitude with him into prison as an anti-administration approach to

⁴² CLEMMER, *op. cit.* *supra* note 4, at 122.

⁴³ *Ibid.*

⁴⁴ DRISCOLL, *op. cit.* *supra* note 19, at 595.

TABLE III
TYPE OF MURDER AND ADJUSTMENT

	Adjusted		Maladjusted	
	N	%	N	%
Felony Murder	3	11.1	9	52.9
Non-Felony Murder	24	88.9	8	47.1
Total	27	100.0	17	100.0

$$\chi^2 = 9.18; P < .01; T = .46$$

life there. Adjustment to the prison rules of conduct established by the custodial staff will be more difficult for the felony murderer. Perhaps, too, his adjustment even to the inmate mores will be difficult, although we are not attempting to measure this aspect of adjustment save as it may be reflected in job stability, job dismissals, and conduct reports of the guards.

On the basis of these remarks, therefore, we are hypothesizing that a significantly higher proportion of inmates who are poorly adjusted than of those better adjusted have committed a felony murder.

Table III confirms this hypothesis. Twelve of the 44 murderers were sentenced to life imprisonment on a felony murder (in all cases, robbery and homicide) conviction, and 9 of these 12 are among the maladjusted group. Only 3 of the 27 adjusted prisoners committed a felony murder compared to 9 of the 17 maladjusted.

We are again confronted with the age variable and an inability to break down our distributions into refined classifications of age, adjustment, and felony murder. Examination of age and felony murder reveals that of the 26 inmates who are presently over 35 years of age, not a single case involves a felony murder conviction. On the other hand, of the 18 who are under 35 years of age, 12 are serving time for felony murder. The association between age and felony murder is significant ($\chi^2 = 23.83; P < .01$) and the T value (.74) is considerably higher than that for adjustment and felony murder ($T = .46$). The interrelationship of these three variables—age, adjustment, and felony murder—is obvious and requires further research.

Previous Penal Experience. We may assume that a prior experience of incarceration aids an inmate to adjust to his instant imprisonment on a life sentence. In no wise are we asserting that previous

TABLE IV
PREVIOUS PENAL EXPERIENCE AND ADJUSTMENT

	Previous Penal Experience		No Previous Penal Experience	
	N	%	N	%
Adjusted	11	84.6	16	51.6
Maladjusted	2	15.4	15	48.4
Total	13	100.0	31	100.0

$$\chi^2 = 4.20; P < .05; T = .31$$

penal experience helps (or hinders) community adjustment; we are only hypothesizing that whatever may have been the type of offense or institution, prior experience of acclimating oneself to the prison routine of working, sleeping, eating, being idle, and associating with other inmates aids one to adjust to a similar subsequent experience. The data presented in Table IV confirm this suggestion. Among the 31 inmates with no experience an almost equal division occurs between the adjusted (16) and the maladjusted (15), but of the 13 men with prior penal experience 11 are in the adjusted group and only 2 in the maladjusted group.

Examination of the age variable reveals no significant differences in having a previous penal experience and being of a particular age. Absence of significant association between these two attributes is meaningful, for the relationship between previous penal experience and prison adjustment remains significant on its own basis and without the intervening age variable.

Intelligence, Achievement, and Personality. Subject to more intensive and extensive analysis, the present data on these items can only be suggestive of ultimate conclusions and are not here given in detail as tests of either null or positive hypotheses. We may report, however, that the following tests have been completed by the adjusted and maladjusted groups: Scovill Classification Test, Stanford Achievement Test, Woodworth Personality Inventory. On none of these tests have significant differences emerged between the adjusted and maladjusted inmates.

SUMMARY AND CONCLUSIONS

This study has been a follow-up of a select group of persons who had committed murder and had been sentenced to a term of life imprisonment.

An index has been constructed to determine the behavioral image of their adjustment to the subculture of a maximum prison. This index is comprised of (a) the number and duration of prison jobs, (b) job dismissals for reason of misconduct, (c) schedules on the conduct of inmates reported by cell block guards. The mean amount of time per prison job, the mean frequency of job dismissals because of misconduct, and the mean number of bad reports were computed for the inmates under observation. Intervals of quarter standard deviations on either side of the mean were used as units for providing plus or minus scores for each inmate. The composite score on these three items is presumed to measure degrees of adjustment and maladjustment.

Dichotomizing these murderers into adjusted and maladjusted groups has provided a basis for testing several hypotheses. The findings indicate that there are significant associations between prison adjustment and inmates (1) who are 35 years of age or older, (2) who are or have been married, (3) whose murder was other than a felony murder, and (4) who had some previous penal experience. Contrariwise, the inmates who are under 35 years of age, who have never been married, who had committed a felony murder, and who never had a previous penal experience are among the maladjusted. No associations were found between adjustment and race, or between adjustment and length of incarceration. Intelligence, achievement, and personality tests thus far reveal no significant differences between these two groups.

Adjustment to the prison community is a particularly chronic problem for the murderer because he generally serves a longer sentence than other offenders. He must come to grips during a large portion of his life with a subculture that is the closest experience to a totalitarian setting he is ever likely to encounter.⁴⁵ The length of time during which he is subjected to imprisonment provides a basis for analysis of a long-term pattern of accommodation to the prison regime, the custodial staff, and the inmate social system. Whatever we can learn about the reactions of these individuals who have deviated most violently from the predominant value system will be of help in understanding lesser deviations. Attempts to measure the adjustment of these men to the

prison community may give us new insights regarding the pattern of adjustment among other types of offenders. Needed, of course, is a comparison of those convicted of murder with those convicted of other forms of homicide; and a comparison of homicide offenders with a variety of other types of offenders.

Our data have revealed a persistently significant association between age and adjustment in prison. Research that seeks to follow up these same men outside the prison environment will pursue this relationship further. We certainly are in no position to contend that we have found confirmation of the Glueck emphasis on the aging process as the most important factor related to increasing non-criminalism,⁴⁶ but our analysis points in the same direction. The significance of passing through the socio-psychologically meaningful age of the thirties should be investigated from a wide multi-disciplinary approach. The high association we have found between adjustment and those inmates aged thirty-five and over only points a finger of inference at the multiple number of variables that comprise the age attribute. It is principally the young adult in his late teens or twenties who contributes most disproportionately to crime in the community and who persists in his maladjustment within the prison community. The restrictions and restraints of a maximum security institution operate differentially according to age, at least among those convicted of murder. Because job stability, frequent dismissal from jobs because of misconduct, and numerous reports of bad conduct are presumed to be valid reflections of behavioral maladjustment, and because these items are observable under the relatively close scrutiny of a maximum institution, there is good reason to suspect that under the less omniscience of the community at large these same and more serious manifestations of maladjustment will occur. If aging is a factor in both types of environments, then more concentrated attention should be given to an analysis of the components that make up this variable.

Is an accommodative process of deference to age (even between a twenty-year-old and a thirty-five-year-old) operative within the prison community? If so, can the administration learn anything about placement of men as cellmates, as co-workers in particular training or vocational activities, etc.?

⁴⁵ SYKES, *op. cit. supra* note 4, at xiv-xvi.

⁴⁶ GLUECK & GLUECK, *op. cit. supra* note 40, at 106.

These questions become meaningful in view of the age-adjustment association. Perhaps the older, better adjusted inmate can have a positive and sometimes subtle influence on the younger maladjusted associate in prison. Obviously "differential association" that would result in the traditional fear of an older "con" educating the younger offender in more sophisticated techniques of criminality could and should be readily detected and avoided. But if we should find that adjustment on the basis of the behavioral components used in this present study also aids in measuring adjustment in the post-institutional experience, then perhaps encouragement of older-younger inmate relationships might function in a constructive manner to spread adjustment patterns throughout a larger portion of the inmate population.

The same may be said of the non-felony murderer and the felony murderer, of those who ever were married and those who never participated in a marital relationship, of those with previous penal experience and those with none. We have noted a high degree of association between prior incarceration and adjustment during the instant imprisonment. Perhaps this merely means that the men who "have gone through it before" are better capable of accepting rigorous restraints on their individual freedom. Perhaps they were adjusted in their earlier penal episodes as well. Research will have to answer these questions. In any case,

if relatively harmonious functioning of the prison community is a desirable goal of administration, some positive value might be gained from the intermingling of those inmates with, and those without, prior penal experience—except, again, where there is reason for a serious concern regarding transmission of the criminal value system and techniques.

Further analysis of adjustment patterns will later be made using a larger number of cases of persons who committed criminal homicide. Confirmation of the validity of the prison adjustment index is needed; and follow-up must be undertaken of these same inmates throughout their post-institutional experiences to determine empirically whether there is any relationship between prison adjustment and adjustment in the community. An index of adjustment to the prison subculture may not function validly as a measurement of adjustment potential for the inmates who are leaving prison and re-entering the general society. But construction of a prison adjustment index should be tested as an aid in determining in advance success or failure on release. Should the adjustment index prove useful in this capacity, the treatment and custodial hierarchies in prison as well as parole authorities outside would have additional clues to guide them in their maximal task of rehabilitation and in their minimal function of restraining former offenders from additional criminality.