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SUCCESS AND FAILURE OF ADULT PROBATIONERS IN WISCONSIN¹

JOHN L. GILLIN* AND REUBEN L. HILL**

PART I

A Preview of Research in Probation Success in Wisconsin

The practice of probation in this country began in the State of Massachusetts. It was started as the result of the interest of a volunteer in the young men who were being sentenced to prison in the Boston courts. In 1848 a Boston shoemaker named John Augustus became interested in some young men who had got into trouble with the law and asked the court to suspend sentence and place them in his charge. With the death of John Augustus no one else seemed to be sufficiently interested to keep up the practice and therefore it was not until about 1870 that an old gentleman known familiarly as Father Cook, a man of leisure, became interested in the youths who were being brought before the criminal courts of Boston. He regularly attended the criminal courts and when he found young men arraigned there whose offenses were due to circumstances rather than to a depraved character, who were not yet hardened in crime, and who might under proper guidance reform, he asked that the court suspend sentence upon these young people and commit them to his care. He seems to have had a genius for this kind of work and frequently the judges accepted his judgment on the case and placed these young men in his charge. He took pains to investigate each case and was so successful in this work that he made a place for himself with the court as an unofficial adviser. Thus, scores of boys in the course of years were saved from entering prison and through his friendly and understanding influence were restored to self-respect and usefulness. Partly as the result of this voluntary work, the State of Massachusetts in 1878 passed a law requiring the appointment of a probation officer for the City of Boston. Fortunately for probation, the first

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officer appointed under this law was a remarkable man by the name of Edward H. Savage, who formerly had been chief of police, but who proved to be a most efficient probation officer for fourteen years. In 1880 the State passed a law permitting the aldermen of any other city in the state and the select men of any town to employ a probation officer. In 1891 at the suggestion of Governor Russell a law was passed by the State requiring the criminal courts throughout the Commonwealth to appoint probation officers, and defining their powers and duties. Such was the beginning of the probation movement for adult offenders in the United States. This experiment was followed only tardily by other states and even today a number of states have no probation laws for adult offenders.

All these years have passed without very much attention being given to the question as to how probation has actually worked. This has probably been due to the fact that the theory is so attractive to most people and so few cases of probationers committing serious crimes while on probation have occurred that the failures have not attracted the attention of newspapers or the public. It is time, however, that an evaluation of probation be attempted on the basis of sound scientific investigation. Some studies of juvenile probation have been made in various parts of the country, but few careful studies have been made of adult probationers—none state-wide in extent.

There have been several studies of parole success but only one detailed study of probation behavior² preceding our work at Wisconsin. Indeed, research in the field of probation preceding 1930 was for the most part descriptive, simple as to methodology, and lacking in content when evaluated in terms of our problem dealing as it does with the success or failure of men on probation. These studies were often limited to studying the proportion of successful probationers in a given area or of a given crime type. The use of simple percentages and averages characterized the method. No attempt was made to utilize statistical techniques of association to relate factors in the backgrounds and experiences of men either before or during the probation period to their success on probation.

The most complete study which we have found on the problem of probation success was conducted by Elio D. Monachesi in Ramsey County, Minnesota. The major difference between the Monachesi

² Monachesi, Elio D., *Prediction Factors in Probation*, The Sociological Press, Hanover, New Hampshire, 1932.

study and ours was that it had as its aim the setting up of prediction tables for individual probationers—not so in our study. We are interested in the total situation confronted by the probationer whether we can control it or not. Hence, we went further than Monachesi and included in our study factors in the probation period itself hoping thereby to obtain a more complete understanding of the behavior of probationers.

This study is an analysis of adult probation as it has been administered by the Department of Probation and Parole of the Wisconsin State Board of Control. A study of adult probation in Wisconsin is comparatively easy because adult probation in Wisconsin is a state function and the records are centralized in the State office. In some states it would be more difficult because adult probation is handled by the courts—each one having its own probation officer and its own records. The population studied comprises all male adult probation cases closed by the Board of Control over a period from January 1, 1933, to January 1, 1936. There were 2819 cases in all under the supervision of thirty-six full-time probation officers.

In this project we have taken all of the cases on probation rather than a sample. Recognizing that we may not have met ideally the requirements of a representative segment of an infinite universe in space and time, we make no claim that our conclusions will apply in this or other states in the distant future. How completely the study meets these requirements will be discussed later in this paper.

The main question to be answered in this study was: *What factor or combination of factors makes for success or failure of adult probationers in Wisconsin?*

We took the following steps in answering the main question:

First, we defined the terms "success" and "failure." This study considered probationers to be failures if they either absconded or committed a new crime during the probation period. Probationers were considered successes if they completed the probation period without such variant experiences.

A second step was to locate factors in the life histories of probationers both before and during the probation period which might be logically related to their outcome on probation. This was done by carefully investigating the records kept by the Department of Probation and Parole and listing all factors on which information was consistently reported by probation officers. In this way

twenty-eight factors of varying relationship to probation outcome were located.

A third step was to test the consistency of classification and adequacy of definition of these factors as they were interpreted in taking them from the probation records. This was accomplished by assigning a worker not familiar with the materials to reclassify a sample of the cases. Agreement between the worker and the original clerks was expected to be low on poorly defined factors.³

A fourth step was to answer a question preliminary to the main question, namely: What factor or combination of factors *have made* for success or failure of adult probationers in Wisconsin? This involved testing the relationship between the thirty factors and outcome on probation in an historical period. The factors were broken down into sub-categories and the percentage of successes and failures in each category was computed. We calculated the probability that the difference between the failure rates in the various sub-categories and the mean failure rate of the sample could have been due to chance. These differences were summarized by the use of "the coefficient of mean-square contingency," *C*, and Fisher's test of "goodness of fit," Chi Square. These statistical measures have been used for years by careful students of parole problems as a means of selecting factors in the life histories of parolees that appeared most closely associated with a man's outcome on parole. We carried the analysis even farther in that those categories showing a fair degree of association were further examined logically and statistically by cross-classification to eliminate the effect of factors with which they seemed to be highly inter-correlated.⁴

Having selected factors which showed relationship to outcome on probation over and above that which might occur by chance, the question of the "persistence" or "stability" of that relationship chronologically from year to year within the probation population and by a residential-occupation breakdown from stratum to stratum within the population, might be answered by correlating the violation rates of the strata in question and computing the probability that this relationship would be due to chance.⁵ A factor would show high stability which affected the violation rates of probationers the same year by year and area by area.

³ A more detailed discussion of the methods of analysis and the results of this test will be given in the second part of this series.

⁴ A detailed explanation of this analysis is given in Part 2.

⁵ The results of applying these tests are described in Part 3.

On the basis of these tests just discussed our findings show the following factors to be of some importance in determining the success or failure of probationers.

1. *Age at Conviction.* Older men appear to be better risks than younger men on probation. This factor is relatively unstable, however, varying in its effect on different samples of probationers.

2. *Marital Status.* Married probationers succeed, in relatively larger proportions, than single, divorced, and separated probationers.

3. *Socio-economic Factors of Employment and Occupation.*

(a) Employed persons were definitely more successful on probation than unemployed persons. This is probably the most important factor of the study.

(b) People having property were more frequently successful on probation than persons without property. This factor is relatively unstable, however, in its effect on different samples of probationers.

(c) Individuals following proprietary or skilled occupations succeed in relatively larger proportions than members of the clerical or unskilled occupations. This factor is highly inter-correlated with the crime for which probationer was convicted.

4. *Factors Relating to Crime.* Individuals with no previous criminal record, and individuals convicted of drunkenness and non-support violate probation less frequently than those individuals with a previous criminal record and those convicted of felonies, such as forgers and auto-thieves.

5. *Treatment by the Court.* Persons sentenced for relatively short periods in a court which puts few men on probation actually violate probation less frequently than those individuals sentenced for longer periods in courts which put a great proportion of their cases on probation.

6. *Occupational and Residential Mobility on Probation.* Probationers who remained on the same type of job on which they had worked before probation were more frequently successful than their fellow probationers who changed occupations when placed on probation. Likewise, those probationers who remained stable residentially while on probation were better risks than their more mobile fellows.

When the first two years, 1933 and 1934, were measured against the third year, 1935, some of these traits carried over into the following year. Generalization of these findings must be cautiously

made, however, when considering probationers by residential and occupational groups. For example, the factors influencing the behavior of probationers placed in rural areas who were farmers by occupation were quite different from those affecting the behavior of probationers placed in urban areas following other occupations.

Our conclusions are tentative, awaiting the development of more refined research techniques and more accurately reported data on probation behavior. Our findings justify, however, the following recommendations:

1. Judges who select men for probation should make adequate field investigations before placing them on probation. Extremely bad risks, in terms of our findings, should rarely, if ever, be given the freedom under supervision which probation allows.

2. Those individuals who are placed on probation despite traits in their make-up which make for failure should be more closely and carefully supervised, in order that they be rehabilitated during their stay on probation.

3. There should be more intelligent placement of probationers at work they can do, and are willing to do, in order that they stay employed and take root in a community.

4. Community agencies should be enlisted to help the probationer in his task of self-rehabilitation.

Congenial employment and stability in the community are needs of Wisconsin probationers, partially under the control of the administrators of probation. This research shows the importance of meeting those needs in the near future.

* * * * *

In the Parts which follow this preview of the problem, more detailed treatment is given to the methodology followed and the implications of our findings. Part 2 is devoted to "An Analysis of the Relationship of Factors in the Life Histories of Probationers both before and during the Probation Period to Outcome on Probation." Part 3 is a discussion of the extent to which these relationships persist chronologically from year to year and internally from social stratum to social stratum within the population. This section is entitled, "An Analysis of the Stability and Reliability of our Findings." Part 4 is an attempt to explain the behavior of those probationers not described by the factors tested in Parts 2 and 3 and is entitled, "An Analysis of Factors behind the Behavior of Probationers Who Deviated from the Norm." In this section is

included a set of suggestions for future research in the success and failure of probationers.

PART II

An Analysis of the Relationship of Factors in the Life Histories of Probationers both before and during the Probation Period to Outcome on Probation

In Part 1 we have described the methodology used in answering the main question, "What factor or combination of factors makes for success or failure of adult probationers in Wisconsin?" This section is a more detailed analysis of three steps in the research process. Having located factors in the life histories of probationers both before and during the probation period which seemed related logically to outcome on probation, and which were consistently reported in the probation records, three questions might be asked of each factor: (1) Is it sufficiently objective to be classified consistently by different clerks? (2) Could the relationship of this factor to the outcome of probationers have been due to chance? (3) Is this factor highly inter-correlated with some other which interferes with, or exaggerates, its true relationship to outcome on probation?

A. Relative Objectivity of the Data.

In order to answer the first question, the factors were first examined carefully as to the amount of judgment involved in classification. Factors such as age; size of community in which living, marital status, number of dependent children, county in which convicted, length of sentence, number of accomplices in crime, and other similarly quantitative factors involve little or no judgment on the part of the clerk in classifying a case. For example, the records state that Probationer A is 33 years of age. Obviously it requires no judgment to classify A as to age. But certain other factors, such as "usual occupation" where the probationer may have worked at several jobs, do require judgment in classifying.

"It is to be expected that in any attempt to classify a mass of conglomerate material according to definite categories, one person may place an individual case in one sub-class, while another will enter the same case in another sub-class. The probability that this will happen is greatly increased if the underlying logic is loose,

or if the training of the investigators differ; and the variation will be very great if the sources of information are contradictory."⁶

A graduate student was assigned to investigate the adequacy of the definitions used and the accuracy of the clerical work involved in classifying our cases. It is noteworthy that we selected a person who had had no previous contact with records, feeling that he would not have the bias we might have if we made the recheck.⁷

This student selected those factors for investigation which might involve some judgment on the part of the clerk in the process of classification of the case. He classified 138 of the original 2819 cases, taking every 20th case beginning January 1, 1933, and ending December 31, 1935. He used the original definitions and instructions for filling out the schedules, as well as the same sources of information used by the clerks in transferring the materials to the schedules originally.

Table 1 shows the six factors re-examined concerning which the judgment of the clerical assistants and that of the graduate student differed most widely with the percentage of the cases entered in the sub-classes by both.

TABLE 1

Percentage Agreement in Classification of 138 Cases by Original Investigator and a Graduate Student Making a Re-Check

<i>Classification</i>	<i>% Agreement</i>
Crime for which convicted.....	87.9
History of Arrests prior to crime for which convicted.....	85.7
Property Possessed by probationer at time of conviction.....	82.7
Usual occupation	69.9
Officer in charge of case for greatest part of probation period.....	90.9
County in which greatest part of probation period was spent.....	78.2

These classifications represent the most inconsistent of all the thirty factors studied. Even these factors compare favorably with the results obtained by Monachesi in his re-check of cases.⁸ The factor, "Usual Occupation," is the one factor which is on the borderline as to consistency of classification. It is probably due to the great amount of judgment needed to determine the occupation of the probationer from the probation records and the apparent ambiguity of the definitions used to classify them. We should certainly

⁶ From a discussion of this problem in parole research by B. G. Wood, *Efficiency of Cumulative Experience in Parole Prediction*, Ph. D. Thesis, University of Wisconsin (unpublished) Chapter II.

⁷ Monachesi claims this bias is negligible. See his monograph, *op. cit.*, p. 84.

⁸ Monachesi, *op. cit.*, pp. 72-96.

be cautious in any conclusions made on the basis of this factor. All the other factors appear sufficiently consistent for unqualified application.

B. *Testing the Significance of Factors Associated with Success on Probation.*

Our second question, "Could the relationship of factors to the outcome of probationers have been due to chance?" involves testing this relationship in an historical period. The factors were broken down into sub-categories and the percentage of successes and failures in each was computed. We calculated the degree of probability that the difference between the failure rates in the various sub-categories and the mean failure rate could have been due to chance. These differences were summarized by the use of the "coefficient of mean-square contingency," C^9 , Fisher's test of "goodness of fit," X^2 ,¹⁰ and a familiar statistic, "P," which is a measure of the probability that the relationship could have occurred by chance.¹¹

Table 2 on the following page summarizes our findings as to the factors which made for success or failure of adult probationers in Wisconsin. Manifestly, no one factor has a very close relationship although most of them show some relation to outcome. The largest value of "C" which we have listed is .252, which is the measure of association between "Employment vs. Unemployment at Termination of the Probation Period" and outcome on probation. This is much smaller than the highest possible for a contingency table of this size. Either there is but slight association between probation behavior and backgrounds of probationers or our data are inadequate to describe the varieties of social backgrounds.

The findings shown in Table 2 indicate that the association between factors in the probationers' lives and their outcome on probation varies considerably. Are these relationships true or do they reflect partly some other factors which interfere with or exaggerate their true relationship to probation outcome? Each factor

⁹
$$C = \sqrt{\frac{\chi^2}{n - \chi^2}}$$
 This measure of association was developed by Karl Pearson in order to secure a measure of the co-variance between two variables, one or both of which could not be expressed in quantitative terms. See Pearson, Karl. *On the Theory of Contingency and its Relation to Association and Normal Correlation*. Draper's Company Research Memoirs, Biometric Series 1, Duland and Company, London, 1904.

¹⁰ Fisher, R. A., *Statistical Methods for Research Workers*, Oliver and Boyd, London, 1932, pp. 80-81.

¹¹ "P" is the probability that X^2 shall exceed any specified value. To every value of X^2 there thus corresponds a certain value of P; as X^2 increases from 0 to infinity, P diminishes from 1 to 0.

that we have tested may indeed be correlated with some other factor which interferes with or exaggerates its true relationship to outcome of probation. We propose to test the effect of that intercorrelation in the section which follows.

TABLE 2

Factors in the Life Histories of Probationers Both Before and During the Probation Period, Ranked According to Association With Probation Outcome as Measured by the Coefficient of Mean Square Contingency

<i>Factor</i>	<i>C</i>	<i>P</i>
1. Employment vs. Unemployment at Termination of Probation Period .....	.252	.01
2. Number of Contacts with Probation Officer Per Month (Number of Entries in Case Summary Per Month)...	.245	.01
3. Length of Maximum Sentence.....	.185	.01
4. History of Previous Arrests.....	.181	.01
5. Changes of Residence Per Month on Probation.....	.157	.01
6. Crime for Which Convicted.....	.137	.01
7. Utilization of the Probation Statute by the Courts from Which the Probationer was Sentenced.....	.121	.01
8. Population Density of County of Major Residence on Probation .....	.110	.01
9. Property Possessed by Probationer.....	.108	.01
10. Percentage in County of Major Residence Living in Rural Areas .....	.104	.01
11. Education of Probation Officer Supervising Probationer..	.100	.01
12. Age at Conviction.....	.098	.05
13. Usual Occupation .....	.094	.03
14. Marital Status .....	.086	.02
15. Distance Traveled per Case by Probation Officer Supervising Probationer .....	.081	.01
16. Per Capita Wealth of County of Major Residence on Probation .....	.075	.02
17. Size of Community at Time of Crime.....	.073	.30
18. Number of Dependent Children for Whom Responsible..	.070	.85
19. Average Mileage of Probation Officer Supervising Probationer .....	.070	.07
20. Average Case Load of Probation Officer Supervising Probationer .....	.070	.05
21. Number of Probation Officers Having Contact With Probationer .....	.067	.18
22. Number of Siblings in Family.....	.062	.70
23. Size of Community of Major Residence on Probation....	.061	.70
24. Home Conditions (Broken vs. Unbroken).....	.058	.50
25. Experience of Probation Officers in Social Work and Outcome of Probationers.....	.050	.27

26. Number of Associates in Crime.....	.043	.75
27. Personality Rating of Probation Officers and Outcome of Their Probationers .....	.035	.50
28. Age of Officer Supervising Probationer.....	.030	.68

There has been relatively little statistical treatment of partial correlation with qualitative data. S. A. Stouffer and Clark Tibbits¹² have proposed a method of studying the relationship between two factors with one or more other factors held constant. Using their method we are able by cross-classifying our data to ascertain the partial association of one factor with probation outcome while holding an interfering factor constant.

The limited number of cases makes it impossible to cross-classify our data more than once; therefore only two factors could be considered at a time. Time and money limitations made it impossible to take all our factors two at a time and measure their association with probation outcome in this way. Therefore, those factors were selected which appeared logically to be highly intercorrelated and their true relationship to probation success was measured by the Stouffer-Tibbits method of partial association.

A factor which appeared to be logically correlated with several factors was the "Length of Maximum Sentence." The judge takes several factors into account in determining a man's sentence, e.g., crime for which convicted, previous criminal record, age at conviction, marital status and home background. Is it not possible, perhaps, that the relationship between these factors and the success or failure of a probationer may be simply a function of the length of the sentence a man serves? Table 3 summarizes our findings in this respect by showing the partial association between a factor and probation outcome while holding an interfering factor constant.

TABLE 3

Partial Association of Certain Factors in the Life Histories of Probationers with Probation Outcome as Measured by the Coefficient of Mean Square Contingency

Factor	C	P
1. Age at Conviction (Holding constant "Length of Maximum Sentence") .....	.141	.01
2. Age at Conviction (Holding constant "History of Previous Arrests") .....	.106	.01
3. Marital Status (Holding constant "Length of Maximum Sentence") .....	.273	.01

¹² Stouffer, S. A. and Tibbits, Clark, "The Method of Expected Cases Applied to Sociological Data," *Publications of the American Sociological Society*, Vol. XXVII, 3, pp. 185 ff..

4. Home Conditions (Holding constant "Length of Maximum Sentence")	116	.18
5. Usual Occupation (Holding constant "Crime for Which Convicted")	149	.01
6. History of Previous Arrests (Holding constant "Length of Maximum Sentence")	212	.01
7. Crime for Which Convicted (Holding constant "Length of Maximum Sentence")	206	.01
8. Contacts per Month with Probation Officer (Holding constant "History of Previous Arrests")	270	.01
9. Changes of Residence on Probation (Holding constant "Property Possessed by Probationer")	116	.50

This is measured by a special application of the coefficient of mean square contingency.¹³ The probability, "P," that the relationship observed could have occurred by chance is also shown.

The results of measuring the association between a factor and probation-outcome while holding another factor constant by cross-classification are disappointing. In every case the increase over the association originally observed was negligible. Partial associations here, appear only slightly greater than the original simple associations. It is doubtful, in this case, if the results warranted the additional time and labor involved in computing them. The complex of factors involved in probation-behavior is too great to arrive at any great association when holding one factor at a time constant.

After having made these initial tests our tentative results show the categories summarized in Part 1 to be of some importance in setting the stage for success or failure of probationers.

PART III

An Analysis of the Reliability and Stability of Our Findings

In this study of the success or failure of adult probationers in Wisconsin it was hoped that some positive conclusions might be drawn from the results of the study. This section is a description of suggested tests which ought to be applied before coming to any final conclusions as to the real significance of factors in determining outcome of probation.

Part 2 indicated the relationship of factors in the life histories of probationers both before and during the probation period to outcome on probation in an historical period. To what extent may

$$C = \sqrt{\frac{\chi^2}{n - \chi^2}}$$

¹³ The same formula was used here as given in a preceding footnote, p. 12, but the Chi Squares are obtained by summing as described in the Stouffer-Tibbits method of expected cases. Stouffer and Tibbits, *op. cit.*, pp. 185 ff.

these findings be generalized for future samples of probationers? To what extent may they be true for different socio-economic strata within the population?

The questions above may be at least partially answered by the following process: (1) By correlating the violation rates of the pooled sample of 1933 and 1934 probationers with the violation rates of the 1935 cases on these factors. If the violation rates fluctuate for each factor in the same way in the third year sample as they did in the first two years the factors are stable chronologically. (2) By breaking down the probation population into residential and occupational strata and comparing the behavior of probationers with respect to these factors in three strata, Rural-Farm, Rural Non-Farm, and Urban Non-Farm these factors which are stable will have the same relationship to outcome of probationers in every stratum.

A method of testing these phenomena might be the well known correlation technique. The amount of correlation between the violation rates of our contrasted samples is indicated for each factor by the coefficient of correlation "r"¹⁴ and the probability "p"¹⁵ that this correlation is not due to chance.

Comparison of Probationers Discharged in 1933 and 1934 with those Discharged in 1935. In order to answer the question, "To what extent may these findings be generalized for future samples of probationers," the pooled 1933 and 1934 cases were computed with the 1935 cases as to behavior on probation. The correlation between the violation rates of the samples (1933 and 1934 cases versus 1935 cases) with the probability that such association might be due to chance is given in Table 4 on our nine most influential factors.

The two samples differ at the start in their average violation rate. The pooled 1933 and 1934 sample has a violation rate of 18.1% whereas the 1935 sample was much lower, 14.9%, a difference of 3.2%, which would hardly occur by chance (C. R. 2.2 sigmas). This would hint at a basic difference in behavior between the two groups of probationers. It would therefore not be surprising if they did not behave the same with respect to several factors in their backgrounds.

Table 4 indicates rather high stability in the following factors,

$$r = \frac{n \sum XY - \sum X \sum Y}{\sqrt{n \sum X^2 - (\sum X)^2} \sqrt{n \sum Y^2 - (\sum Y)^2}}$$

This is not a measure of absolute reliability but rather reliability of relative proportions.

¹⁵ See Fisher, R. A, *op. cit.*, Table VI., p. 176 and pp. 104 ff.

Usual Occupation, Employment vs. Unemployment,* Marital Status and Length of Maximum Sentence. History of Previous Arrests shows rather high correlation between violation rates of the two samples ($r=.66$), but the probability "p" indicates that this association is probably due to chance.

TABLE 4
Stability of Nine Factors in Their Effect on the Violation Rates of 1935 and 1934 Cases Compared with Cases Closed in 1935 as Indicated by the Amount of Inter-Correlation and the Probability That Such Correlation Might Be Due to Chance

Factor	R	P
Usual Occupation .....	.78	.02
Age at Conviction.....	.11	.75
Employment vs. Unemployment at Termination of Probation Period .....	.99	.09
History of Previous Arrests.....	.63	.35
Marital Status .....	.88	.13
Crime for Which Convicted.....	.49	.15
Property Possessed by Probationer.....	.26	.55
Size of Community at Time of Crime.....	.19	.60
Length of Maximum Sentence.....	.96	.01

The failure of the remaining factors to influence the behavior of probationers similarly in both chronological samples weakens the conclusions of this study with respect to these factors. It would be dangerous to generalize upon our findings as to the relationship of Age at Conviction, Property possessed by Probationer, and Size of Community at Time of Crime, to outcome on probation if the findings will not hold true in later samples.

Comparison of Rural Farm, Rural Non-Farm and Urban Non-Farm Probationers. Utilizing the same techniques of analysis we applied the test described above to three significant social strata within the population, (1) Rural Farm probationers,¹⁶ (2) Rural Non-Farm probationers,¹⁷ (3) Urban Non-Farm probationers.¹⁸

This breakdown eliminated for the sake of homogeneity mi-

* The coefficient on this factor must be cautiously interpreted since "N" in this case was small — (N=2).

¹⁶ The probationers in the rural farm stratum were a highly homogeneous group. They were farmers by occupation both before and during the probationary period and they lived in areas of under 25000 population both before and during the probationary period.

¹⁷ The probationers in the rural non-farm stratum were rural by residence but were practicing non-farm occupations both before and during the probationary period.

¹⁸ The urban non-farm probationers were made up of individuals living in the city practicing occupations other than farming. The number of urban farm probationers was so small that they were not included in this test.

grants during the probation period from the city to the rural areas, or from the rural areas to the cities. It eliminated individuals in urban areas who farmed. It failed to eliminate those individuals who had migrated to the city or to the country shortly before committing the crime for which they had been put on probation.

The three groups chosen for contrast are still large enough after the paring they have received to insure stability as to numbers. There are 574 probationers in the Rural Farm group of which 13.6% violated probation. There are 1127 probationers in the Urban Non-Farm group of which 18.4% violated probation. There are 559 in the Rural Non-Farm group of which 15% violated probation.

Of the twenty-eight factors on which data were originally gathered we chose ten to test differences of behavior within our strata. These ten were all either highly associated with outcome of probationers in our study or of special interest in rural-urban contrasts. They covered roughly the fields of age at conviction, family background, socio-economic status, factors associated with the circumstances and conditions of the crime and trial, and the factors associated with the probation period.

Table 5 shows the relative stability of these factors when compared for all three strata. The correlation between the violation rates of the three strata (Rural-Farm vs. Urban, Rural Farm vs. Rural Non-Farm, and Rural Non-Farm vs. Urban) is given with the probability that such association might be due to chance.

TABLE 5
Stability of Ten Factors in Their Effect on the Violation Rates of Rural-Farm, Rural Non-Farm and Urban Non-Farm Cases as Indicated by the Amount of Inter-Correlation and the Probability That Such Correlation Might Be Due to Chance

Factor	R.F. vs. Urban		R.F. vs. R.N.F.		R.N.F. vs. Urban	
	<i>r</i>	<i>P</i>	<i>r</i>	<i>P</i>	<i>r</i>	<i>P</i>
	Age at Conviction.....	.46	.20	.22	.55	.26	.50
Number of Siblings in Family.....	.39	.28	.02	.99	.47	.15
Home Conditions .....	.41	.40	.59	.22	.91	.01
Marital Status .....	.22	.74	.33	.58	.83	.01
Number of Dependent Children....	.79	.02	.48	.22	.17	.68
History of Previous Arrests.....	.96	.05	.94	.08	.96	.05
Crime for Which Convicted.....	.69	.04	.24	.50	.26	.41
Length of Maximum Sentence.....	.44	.30	.95	.01	.46	.24
Number of Contacts with						
Probation Officer .....	.76	.04	.38	.35	.00	.99
Changes of Residence.....	.91	.01	.99	.32	.63	.22

From analysis of this table it is evident that only two of the ten factors maintained their association to outcome to probationers when measured from stratum to stratum of our residential-occupational breakdown: (1) History of Previous Arrests, and (2) Changes of Residence on Probation.

Of the remaining factors Home Conditions and Marital Status affected probationers in the Rural Non-Farm stratum much the same as in the Urban stratum but both are highly unstable when applied to the Rural Farm stratum. Most of the other factors are highly variable in their effect on the outcome of the probationers in our three contrasted strata.

Basic Differences Between Rural Farm, Rural Non-Farm and Urban Non-Farm. That there are basic differences between rural and urban areas is generally recognized. In this study of probation that is accentuated by our method of contrasting the Rural Farm with the Urban-Non-Farm as to outcome on probation. The critical ratio of the standard error of difference to the actual difference between their mean violation rates is 6.8, which is highly significant. Furthermore, the two strata differ in behavior on five of the ten factors tested in this study. They should be given consideration, therefore, according to their own unique problems and not treated as parts of a homogeneous unit.

The Rural Non-Farm, while representing a different occupational group from that of the Rural Farm, still shows evidence of many similar problems. The mean violation rates of these two strata do not differ significantly. (C. R.=.467.) They differ, however, in behavior on seven of the ten factors. On six of the ten factors, the Rural Non-Farm differed more completely from the Rural Farm than it did from the Urban Non-Farm, as measured by the amount of inter-correlation between their violation rates. This raises the question as to whether urban patterns are carrying over more rapidly into the Rural Non-Farm group than are the patterns of the Rural Farm which is in closer proximity.

A more detailed analysis of the data has shown the failure of the advantages of the Greater Family pattern in terms of economic security to carry over from the Rural Farm to the Rural Non-Farm.¹⁹ The absence of the characteristically rural primary group controls in the Rural-Non-Farm population is offered as an expla-

¹⁹ Hill, Reuben L., *Success and Failure of Adult Probationers in Wisconsin*, Ph.D. Thesis, University of Wisconsin, 1938. (Unpublished) pp. 160, 161.

nation of much of the variant behavior of this group. Where do the Rural Non-Farm people belong? With which group are they most highly identified?

Our conclusions on this point are that for the purposes of treatment the Rural Farm and the Urban should be regarded as separate problems. More study should be made of the Rural Non-Farm population to determine with which group it should be identified or whether, indeed, it should be treated as a separate stratum by itself.

Any generalizations about the relationship of factors to outcome of probationers may not be extended to the individual strata of the population indiscriminately.

PART IV

Analysis of Factors Behind the Behavior of Probationers Who Deviated from the Norm

We have located and tested the relationship of thirty factors in the life histories of probationers both before and during the probation period to the outcome of these probationers under supervision. Some of the factors were definitely associated in some way with the success or failure of probationers. The persistence of this relationship, chronologically, from year to year, has been tested. We have also tested the extent to which our findings for the entire probation population could be applied to individual socio-economic strata. Some of the factors were stable chronologically, but varied considerably when applied to different socio-economic strata. This led us to question the extent to which the findings applied to all probationers in the study, as well as to question the extent to which we had exhausted the records of the probation department as to factors relevant to probation success. We were not content to stop with the factors we had tested, but wished to locate additional factors which might still be inferred from the probationers' case records.

We knew by tests made that the factors which we had tested and found related to outcome of probationers differentiated fairly well between violators and non-violators. To complete the picture it would be necessary to find factors which would explain the behavior of the residual group. We, therefore, selected nine of the most closely associated factors with outcome on probation according to their "C" value and matched violators and non-violators on these nine factors by sorting them through an electric sorting machine. The nine factors differentiated successfully between non-violators

and violators for all except eighty-seven of the 2819 cases. These were found in combinations of fifty-six pairs of violators and non-violators, alike in respect to the nine factors: Age at Conviction, Size of Community at Time of Crime, Marital Status, Crime for which Convicted, Length of Maximum Sentence, History of Previous Arrests, Property Possessed at Conviction, Usual Occupation, Unemployment vs. Employment at Termination of probation.²⁰

The matched pairs of violators and non-violators which resulted from this process might be considered the "variants" or "sports" of our probation population. They chose to deviate from the normal behavior of the bulk of our probationers with similar backgrounds. The case records of these variant pairs were analyzed intensively in the hope of finding some additional clues which might explain why one member of a homogeneous pair violated probation while the other remained a success on probation.

A summary was made in each case giving what the analyst considered the determining factors in violation. Fourteen new factors were uncovered which had not been included in the original schedule. They were for the most part factors which were not specifically stated in the records. It was necessary to infer constantly and required a great deal of judgment to classify each case. Before these factors are tested by researchers on a big scale, they will have to be put into schedules in more specific and clear-cut form.

Of the fourteen factors uncovered in this intensive analysis of paired cases the intensity of association with the success or failure of the paired probationers involved varied from factor to factor. This association was measured by the coefficient of mean-square contingency "C." The results of this test are shown in Table 6. The probability that the association could be due to chance is indicated as "P." Obviously the results of such a test on a few highly selected cases may not be generalized concerning the 2819 cases from which they were taken. However, they have some meaning in generalizing upon the behavior of our variant pairs of probationers. Furthermore the factors may be tested later on a larger sample of probationers to see their true relationship to probation outcome. The more clear cut factors should certainly be utilized in future studies of probation success.

²⁰ The pairs were actually alike in respect to more than the nine factors. The inter-correlation between these nine factors and other related factors resulted in homogeneity of some pairs with respect to as high as twenty factors.

TABLE 6

Factors in the Life Histories of Fifty-six Homogeneous Pairs of Violators and Non-Violators Ranked According to Association with Probation Outcome as Measured by the Coefficient of Mean Square Contingency

Factor	C	P
1. Overt Disharmony in the Home.....	.71	.01
2. Stability of Employment (No. of jobs held per year).....	.54	.01
3. Participation in Local Community Organizations.....	.48	.01
4. Proportion of Time Unemployed on Probation.....	.39	.02
5. Length of Detention in Jail.....	.35	.03
6. Nature of the Crime, Planned or Situational.....	.34	.01
7. Sex Conflict or Mental Maladjustment.....	.30	.02
8. Type of Leisure Time Activities.....	.29	.16
9. Nature of Probationers' Savings Habits.....	.18	.50
10. Criminal History in the Family.....	.17	.24
11. Type of Neighborhood on Probation.....	.09	.80
12. Type of Associates.....	.05	.60
13. Physical and Mental Defects.....	.04	.70
14. Personal Appearance .....	.00	.99

The results of studying intensively the individual case records of all our pairs of probationers may be expressed in ways other than the statistical tables above.

We were impressed with the weakness of our statistical findings from the larger sample when applied to the individual case. While the above tables show what the factors were which supplement the nine influential factors from the larger sample to determine the success or failure of our paired probationers, the application to the individual case shows wide discrepancies. Factors appear in this analysis which do not bulk large for the whole group but are all important for the single case.

Table 7 shows the extent to which the nine factors controlled the more important additional factors which we uncovered in our intensive analysis and to what extent these factors acted to supplement by differentiating between the non-violator and violator member of a pair. Thus it is shown that *sex conflict* was a differentiating factor for 33.9% of the pairs, *days in jail*, for 67.4% of the pairs, *stability of employment* for 69.8% of the pairs, and so on. This does not give conclusive evidence that for any one case any one of these factors was the "determining" factor which made for success or failure of probation. Its importance is to show the relative relationship of these factors to our paired probationers *in general* in order that we may know which to suggest for inclusion in schedules for future probation research.

TABLE 7

*Frequency of Occurrence of Factors Controlled or Not Controlled by Holding Constant Nine Factors Relevant to Probation Violation**

<i>Factors</i>	<i>Frequency Controlled</i>	<i>Frequency Differed</i>	<i>Per Cent Differed</i>	<i>Total Pairs</i>
Sex Conflict	37	19	33.9	56
Disharmony in Home.....	18	21	53.8	39
Nature of Crime, Planned or Situational.	37	17	31.5	54
Days in Jail.....	15	31	67.4	46
Leisure Time Activities.....	30	26	56.5	46
Local Participation	24	31	56.4	55
Stability of Employment	16	37	19.8	53
Proportion of Time Unemployed.....	35	21	37.8	56
Total.....	212	203	48.9	

The statistical approach missed the weight which should be attached to particular factors in the individual case. For one man marital maladjustment and sex conflict may be the factors which appear all important in affecting his success on probation. Through the woman in the case he may have been originally hailed before the law and through her he may violate his probation. One of our cases is a man who received a head injury early in life which made him irresponsible and outweighed all other factors relevant to probation success. Yet for the entire sample the factor "physical and mental defects" showed no appreciable relationship to outcome. In another set of cases drinking was the determining factor, or appeared to be, both in the crime and in the violation. Several of the men, too, were members of delinquent gangs at the time of the crime. They were put on probation in the same community, returned to associate with the same gang and ultimately were involved in another scrape for which their probations were revoked. Yet this factor of delinquent associates did not appear relevant in the sample as a whole. One case showed extremely high court costs which appeared to weigh as an impossible load and eventuated in the probationer absconding. In some cases the probation officer's very attitude toward a man is a determining factor. One probationer expressed it weakly, "he had it in for me," and the case record confirms his defense. A description of the conduct of these men in terms of the factors which affected behavior for the *average probationer* would have been highly inaccurate.

* Factors Held Constant were: Age at Conviction; Community, Size of at Time of Crime; Marital Status; Crime for Which Convicted; Length of Maximum Sentence; History of Arrests; Property Possessed at Conviction; Usual Occupation; Unemployment vs. Employment at Termination of Probation.

The statistical method describes best those individuals who group fairly closely about the average. The case method alone can correctly approximate a description of the conduct and difficulties of those individuals who find themselves at the extremes of the distribution or under the "tails" or the normal curve. We have used the statistical method with misgivings in describing the behavior of all probationers. Future studies should make more of a compromise in their methodology.

Suggestions for Future Research in Probation. The average researcher finds himself prepared to begin a thorough piece of work on a problem only after he has "muddled through" at least one project in the field. Other students may be spared this labor if the trailblazer makes available to others the benefit of his experience, leaving a set of suggestions showing what questions remain unanswered.

We propose certain refinements in probation research which we were unable to make because of our limited knowledge of the problem when we set up the study:

1. Future research might include a study of the special factors which make for *absconding* from probation. The present study suggests that the influences which bring about absconding differ from the forces which act to bring about criminal recidivism. Studies might be set up making comparisons on a three-fold basis: How do the factors in the life histories of probationers differ among non-violators as compared with violators who (a) abscond, (b) repeat the same crime in violating probation, (c) commit a different crime in violating probation?

2. A weighted violation rate might well be worked out which would take into account the fact that a probationer who violates after three months on probation may not have been as probationable as an individual who behaves satisfactorily on probation for thirty months before violating. A method of handling it would be to weight violators according to the months they had served without violating, weighting those more heavily who served less time than the average and less heavily those who served longer before violating than the average. The weighted violation rate of a given category would be obtained by dividing the sum of the weighted violators by the total number of probationers in that category.

3. A follow-up of the post-probation behavior of probationers should be done to determine how long a "success" on probation really remains so in society. With more accurate check of the suc-

cesses on probation, factors which make for success or failure might take on new meaning.

4. Case studies should be made of individuals who obviously fall at the extremes of the distribution to supplement the statistical average everywhere stressed in the present type of study. The picture is quite incomplete at present.

5. The problem of the amount of supervision given probationers should be much more carefully studied. One should determine why the violation rate of probationers increases as the number of visits they receive from the officer increases. Our tables show that this is independent of the previous criminal record of the men.

6. Future studies might profitably examine more intensively the relationship of the judge to the success of probationers. To what extent does he ask for investigation and use the results of the investigation prior to sentencing a man to probation? To what extent does he utilize the probation statute for probationable individuals and what are his reasons? What proportion of the probationers does the judge turn over to voluntary workers? What are the results?

7. More refined methods of handling the amount of inter-correlation between significant factors relating to outcome of probationers should be worked out, and techniques of partial and multiple correlation for measuring the relationship of these factors to probation success should be developed. Simple measures of association hardly give an accurate picture of the true relationship of a factor to outcome of probationers.

These are a selected few of the many questions still left to be answered in the field of probation studies before social scientists may hope to construct valid prediction tables for probationers.

In conclusion, we present a list of factors which might be included in schedules of future research in success and failure of probationers. These are factors which were demonstrated as being associated either with the behavior of the 2819 probationers in the original study or with the behavior of the fifty-six homogeneous pairs of variant probationers discussed above.

Factors of Individual Maturation

- Chronological Age at Conviction
- Mental Age (I.Q.)
- Mental Defects

Factors in the Family Background

- Overt Disharmony in the Home
- Marital Status
- Marital Maladjustments and Sex Conflict

Factors in the Socio-Economic Background

- Usual Occupation
- Property Possessed by Probationer
- Participation in Local Organizations
- Nature of Leisure Time Activities
- Culture Patterns of Neighborhood
 - (a) Predominantly foreign
 - (b) Predominantly native
 - (c) Mixed

Factors Associated with the Circumstances and Conditions of the Crime and Trial

- County of Probation Period (Nature of Area of Residence)
 - (a) Population Density
 - (b) Per Cent Rural
 - (c) Per Cent Foreign Born
- Number of Contacts per Month by Probation Officer
- Number of Probation Officers in Contact with Case
- Proportion of Time Unemployed on Probation
- Stability of Employment on Probation (Number of Jobs Per Year)
- Probation Officer in Charge of Case for Major Portion of Probation Period, His Education and Case Load
- Residential Mobility while on Probation

Miscellaneous Items Which Might Be Checked for Statistical Purposes

- Outcome on Probation (Violator, Non-Violator)
- Months Served on Probation

How Probation Period Was Terminated

- (a) Discharged
- (b) Absconded
- (c) Committed Crime
 - 1. Repeats Same Crime
 - 2. Different Crime
- (d) Other