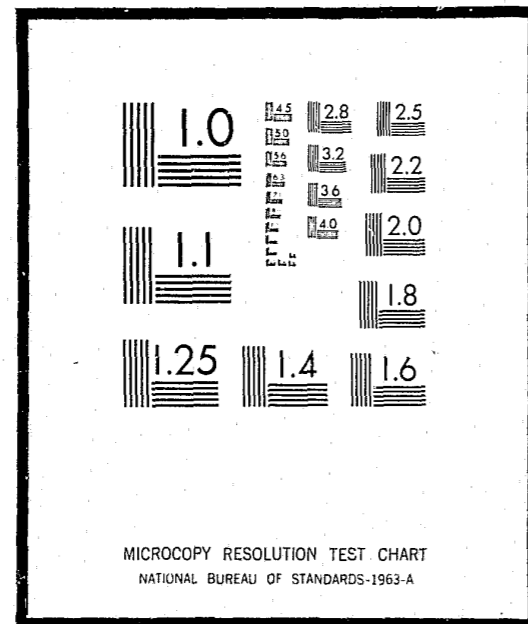


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## POLICE BACKGROUND CHARACTERISTICS AND PERFORMANCE

### SUMMARY REPORT

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PREFACE

This Report is an abridged description of a study conducted by The New York City-Rand Institute under a grant from the National Institute of Law Enforcement and Criminal Justice (Grant Award NI-71-030-G). The complete research report is also available as R-999-DOJ, which contains detailed references and tables of findings which are omitted here.

This work is part of a continuing research effort aimed at understanding various aspects of police selection, assignment, promotion, and reward policies. We have compared the background characteristics of a large group of officers in the New York City Police Department with available measures of their performance on the job to determine the type of candidate who is likely to display specific patterns of performance. The findings have implications for the development of improved performance measures and selection procedures which we plan to explore in later studies.

Other police personnel studies have appeared previously and have been utilized by the New York City Police Department. The first report in the series was an analysis of how the Police Department handles allegations of police misconduct, including departmental charges, civilian complaints, harassment, and charges characterizable as corruption (Cohen, Bernard, The Police Internal Administration of Justice in New York City, The New York City-Rand Institute, R-621-NYC, November 1970). Since the publication of this study, New York City Police Commissioner Patrick J. Murphy has made several changes in the Department's procedures related to allegations of misconduct, as part of his overall program to provide local police commanders with greater authority and to reduce the extent of corruption in the Department.

The second report suggested ways to increase minority representation in the Police Department and led to the establishment of a Personnel Re-evaluation and Recruitment Section whose function is to assist minority candidates in completing their applications to the Department (Hunt,

Isaac C., Jr., and Bernard Cohen, Minority Recruiting in the New York City Police Department, Part I: The Attraction of Candidates, Part II: The Retention of Candidates, The New York City-Rand Institute, R-702-NYC, May 1971).

ACKNOWLEDGMENTS

This study could not have been conducted without the complete support and interest of the New York City Police Department. We are particularly indebted to Police Commissioner Patrick V. Murphy, who reviewed and endorsed our proposal to undertake this work and discussed with us the aspects of police selection of concern to him. We are also indebted to First Deputy Commissioner William H. T. Smith and Assistant Chief Inspector Sydney C. Cooper, who offered their insights, ideas and criticism during the conceptualization and research design phase of the study. Thanks are also due to George P. McManus, former Chief Inspector of the Department, and Elmer C. Cone, former Chief of Patrol, whose interest in our research made possible the acquisition of sensitive data from the various personnel units in the Department. Most of our data came from the Chief Clerk's Office, and we are grateful for the special assistance provided to us by Chief Clerk Louis L. Stutman, now Deputy Commissioner of Trials. We are also grateful to John O'Brien, Public Safety Director of New Brunswick, New Jersey (formerly Deputy Inspector, N.Y.P.D.), Captain Donald V. Rowan, Commanding Officer of the Data Systems Section of the Planning Division, Lieutenant Edward Kearney of the Personnel Evaluation Section, and Sergeant Albert Higgins, Personnel Bureau, who served as liaison officers to this study for varying periods of time. They answered innumerable queries and assisted in various arrangements.

Thanks also to Harry I. Bronstein, Director of the Department of Personnel of the City of New York, and Solomon Wiener, Director of Examinations, for providing us access to civil service examination scores, the only information we collected which was not maintained by the New York City Police Department.

Many individuals at The New York City-Rand Institute and The Rand Corporation of Santa Monica, California, provided assistance and inputs which improved the quality of the present research, and we express our thanks to them. First, we wish to express our gratitude to our research

assistants Toni Edelman, Margaret Hartz, Kathleen Starger, and Katherine Briar, who had the complex task of collecting data. Their diligence and devotion is attested to by the final utility of our data file. Additional assistance was given by Bertha Palau and Valerie Roye.

During the course of our study, we benefited greatly from the methodological expertise of three consultants, Edgar F. Borgatta, Joel Lefkowitz, and Burton Singer. All the computer programming for this research was carried out very effectively by Joan Held. We owe a special debt of gratitude to Fred C. Iklé, Social Science Department Head, The Rand Corporation, for his encouragement and support of this research project.

Sincere thanks are due to Melany E. Baehr, Director of The Industrial Relations Center, The University of Chicago; Harry Campbell and John Jennings of The New York City-Rand Institute; and Marvin E. Wolfgang, Chairman, Department of Sociology of the University of Pennsylvania, and past Director of Research of the National Commission on the Causes and Prevention of Violence, for their careful reviews of this work.

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Bernard Cohen

Jan M. Chaiken

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## I. INTRODUCTION

For this study, information was obtained about the background and performance of 1,915 officers appointed to the New York City Police Department in 1957, of whom 1,608 were still active members of the force in 1968 when most of the data were collected. The objectives of the study were:

- o To develop information on how to select men who are likely to perform effectively as police officers and to reject candidates likely to be unsatisfactory.
- o To identify attributes currently thought to be negative or positive indicators which in fact are not related to later good or poor performance.
- o To identify methods for sharpening the estimate of a recruit's future performance by using information from his probationary period on the force, and for determining which probationary patrolmen should be terminated.
- o To determine the kind of men who are likely to perform ineffectively in areas where complaints against the police are common.

A review of previous studies of police selection based on empirical data from various samples of officers shows that most of them were primarily directed at validating the predictive power of psychological, mental or aptitude tests. The results have frequently been negative, and in any event they have varied from city to city. The most powerful and consistent predictors have been derived not from written tests but from elements of candidates' prior personal history, such as occupational mobility, education, and early family responsibility. In separate studies, such factors have been found to be related to the likelihood that an officer's employment will be terminated, either voluntarily or for cause, and to his later performance evaluation by a supervisor. The exact relationship between background characteristics and performance has been found to depend on the race of the officer.

In the present study, we have utilized only quantifiable measures of background and performance, of a type commonly maintained in personnel files by police departments. No personality tests were administered to the subjects, nor were any special performance evaluations undertaken. The study differs from those previously completed in the following ways:

- o All the subjects were officers in a single police department, and yet the sample size is large enough to study interesting subgroups such as black officers, detectives, and college-educated men. Regrettably, there were not enough Puerto Rican officers in the sample to analyze their performance separately from that of other officers.
- o All the subjects entered the Police Department in a single year. The use of such a *cohort* design automatically standardizes for the tenure of the subjects and assures that they all experienced a similar sequence of departmental policies in regard to assignment and promotion.
- o Nearly every officer who entered the Department in the selected year is included as a subject. There was no need to request men to volunteer to cooperate with the study, and thus such biases as may be introduced through the use of volunteers were not present.
- o We did not confine our study to officers of a particular rank. In fact, the entire range from patrolman to captain is represented in the sample. Thus, it is possible to use career advancement as a measure of performance.
- o All of the data were collected at least 11 years after the subjects' appointment, thus providing a substantial period of time over which to measure performance. This also permits analysis of the relationship of early job performance and experience to later job performance.
- o Although most of our performance measures rely on the documented actions taken by the Department in respect to each officer, and thus reflect the policeman's view of performance, we do have extensive data on two community-derived (albeit-negative) measures of performance. These are the number of civilian complaints against officers (i.e., complaints of the use of

unnecessary force, abuse of authority, discourteous behavior, and ethnic slurs) and the number of allegations of harassment (i.e., false arrest, illegal search and seizure, detention of a person without cause, etc.).

II. METHODOLOGY

Most of the data for this study were collected manually from the files of several units within the New York City Police Department, including the Chief Clerk's Personnel Unit, the Disciplinary Record Unit, the Medical Unit, the Office of the Chief of Detectives, the Civilian Complaint Review Board, and the Background Investigation and Screening Unit. The Department placed no restrictions on the items of data to be recorded by us, and we selected over 150 descriptors for each subject. The only data not from the Police Department were civil service examination scores, which were collected from files of the New York City Department of Personnel.

The background variables and performance measures used in this study are summarized briefly below.

PREDICTOR VARIABLES

Race and Age

1. The officer's *race*. Among the men appointed in 1957, 92.4 percent were white, 6.2 percent were black, and 1.4 percent were Hispanic.
2. The officer's *age* at time of appointment, which averaged 25.7 years. Due to appointment requirements, all of the men were at least 21 years old, and those over 29 were veterans.

Mental Examinations

3. The officer's *I.Q. score*, as obtained from the Otis Self-Administering Test of Mental Ability, Higher Examination: Form D, which was administered to the men when they were recruits. The average I.Q. was 104.4.
4. *Civil Service Score*. This is the grade on the written examination for appointment as a patrolman, which was developed, administered, and scored by the New York City Department of Personnel. During the years when the men in our sample took the Civil Service Examination, the passing grade was 70. The average grade for the men appointed in 1957 was 77.0.

Family Descriptors

5. The number of members of the officer's *family* who had a *mental disorder* prior to his application.
6. The officer's *region of birth*.
7. His number of *siblings*.
8. His *father's occupation*, scaled according to a standard index of prestige.

Occupational History

9. The officer's *last occupation*, scaled by the same index.
10. The *number of jobs* held by the officer prior to application. The average was 5.7 prior jobs.
11. The officer's history, in previous *employment*, of dismissal or other *disciplinary actions*.

Military History

12. Whether the officer was a *veteran* of the armed forces. About 82 percent of those appointed in 1957 were veterans.
13. The number of times an officer was the subject of a court-martial or other *military disciplinary actions*.
14. Whether the officer had received any *military commendations*.

Personal History

15. *Number of residences* at which the officer lived after leaving elementary school, excluding military addresses.
16. The officer's *marital status* at time of application.
17. The number of the officer's *children* at time of application.
18. The number of *debts* outstanding against the officer at time of application.
19. Whether the officer had had any nervous or *psychological disorder* prior to application, as recorded by him on his application form.
20. Highest level of *education* attained by the officer prior to application.

Incidents Involving Police and Courts

21. The number of times the officer had been *arrested*, including for juvenile offenses, prior to application. About 9 percent of the men appointed in 1957 had a prior arrest.
22. *Type of offenses* for which he had been arrested.
23. Whether any arrests were for a *violent crime*.
24. Number of *summonses* (other than in a civil action) received by the officer prior to application.
25. Number of *civil court appearances*, as a party or a witness.
26. The *rating* of the candidate by the Police Department's *background investigator*, who had access to the same data used in the preceding variables and who also interviewed the candidate and his friends, neighbors, and employers. This rating was obtained by interpreting the investigator's report and classifying it in one of the following categories:
  - o disapproval, poor, or questionable
  - o fair
  - o good
  - o excellent.
27. Particular items of *background* listed as *negative* by the background investigator.

Early Performance

28. A weighted average of the officer's grades in the police academy as a recruit. In 1957, a minimum of 68 on this *recruit training score* was required for graduation from the police academy. The average was 77.2.
29. The number of "unsatisfactory" marks noted on the Police Department's standard form for *probationary evaluation*. Only 30 percent of the officers had one or more unsatisfactory notations.
30. Whether the officer qualified as a *marksman*.

Later Experience

31. The *hazard status* of the precinct to which the officer was first assigned, using hazard ratings developed by the Police Department.
32. Whether the officer *resided* in New York City or elsewhere in 1968. (In 1957, candidates were required to live in New York City, and therefore residence in 1957 could not be used as a predictor.)
33. The officer's highest *level of education* as of 1968.

PERFORMANCE MEASURES

Career Advancement

1. The officer's *career type*, including special assignments, promotion to or within the Detective Division, and civil service promotion to sergeant, lieutenant, or captain.
2. The number of departmental *awards* conferred on the officer in the period from 1957 to 1968.

Disciplinary Actions

3. The number of complaints against the officer over 11 years from civilians who *protested a summons* they received or objected to *harassment* associated with an arrest (e.g., illegal search and seizure, unjustifiable detention, or confiscation of property).
4. The number of allegations (usually by a commanding officer, but sometimes by a civilian) that the officer violated the Department's rules and procedures. These *departmental charges* refer to minor violations such as absence from post without permission or failure to safeguard revolver, but not to serious charges such as corruption.
5. The number of allegations of *criminal misconduct* against the officer received during 11 years, including *corruption*.
6. The number of complaints against the officer processed by the Department's *Civilian Complaint Review Board*. These include allegations of the use of unnecessary force, abuse of authority, discourteous behavior, or ethnic slurs.



7. The *total* number of *complaints*, of any type, against the officer in 11 years.
8. The number of complaints against the officer *brought to departmental trial*.
9. The number of *complaints substantiated* in a departmental trial.

#### Absenteeism

10. The number of illnesses reported for the officer in 11 years, with each illness counting as one *time sick*, independent of how long it lasted. The average number of times sick was 10.3.
11. The total number of *days sick* for each officer. This averaged 107.1 days in 11 years.

#### Other

12. The number of times an officer claimed he had been injured in the line of duty and his claim was determined to be invalid. Under 4 percent of the officers had an *injury disapproval*.
13. The number of occasions on which an officer was requested to turn in his firearms. This is done only in cases of extreme misconduct or physical disability, and only 27 officers (1.7 percent of those still on the force in 1968) had their *firearms removed*.

*For detectives only*, there were additional performance measures: the number of *arrests* made by the officer in the first six months of 1968, broken down into *misdemeanor* and *felony arrests*, and a *supervisor's evaluation of performance*. None of these performance measures was found to be significantly related to any of the predictor variables. Although this finding can be interpreted to mean that it is not possible to predict the performance of detectives from background characteristics and early performance measures, we tend to believe that it merely indicates the need for better measures of detective performance.

#### DATA ANALYSIS

The relations between predictor variables and individual performance measures, as well as the relations among the performance measures taken as a group, were first determined from cross-tabulations and simple correlations. These tabulations were obtained separately for the black officers and the total active cohort, which predominantly consists of white officers. The initial rationale was to avoid summary analyses based on large linear combinations of either predictor or performance measures.

Next, the variables which appeared, from the cross-tabulations, to be interesting for further study were processed by factor analysis. This technique revealed that certain performance measures were so closely related that they should be considered together as describing a single pattern of performance. These patterns will be presented in the next section.

Finally, the strength of each background variable as a predictor of later performance was determined by multiple linear regression. This technique identifies the contribution of each background characteristic to explaining a later pattern of performance, while controlling for the contribution of the remaining background variables. The computer program used for all the above data processing was the Statistical Package for the Social Sciences (SPSS).

Several criteria were used for assessing the importance and reliability of the relationships found by cross-tabulations, factor analysis, and regression analysis. These include: the internal consistency of associations across subclasses of the data; the degree of strength of associations; the conformability of the associations with knowledge of experienced people in the field; and formal statistical tests such as chi-square and F-tests. The statistical tests identified whether the findings differed significantly from what would be expected by chance alone. In all cases, a .05 level of significance was used, which means

that there are 5 chances in 100 that two variables found to be related are actually independent of each other. All findings reported in the next section were found to be statistically significant in this sense, unless we specifically state otherwise.

### III. FINDINGS

#### PERFORMANCE PATTERNS

From the data available in the Department's personnel files, only a few patterns of performance could be identified (by factor analysis) and related to background characteristics of officers. These were:

- o *termination*, which describes the officer who left the Department prior to 1968, either voluntarily or involuntarily;
- o *career advancement*, which refers to the officer who obtained special assignments or promotions, frequently coupled with above-average numbers of awards;
- o *departmental discipline problem*, which describes the officer who had an above-average number of departmental charges, and frequently also had an above-average number of times sick;
- o above-average number of *civilian complaints*; and
- o above-average number of allegations of *harassment*.

The last four performance patterns were found to be independent, so that any given officer could display none of these patterns, any one of them, two, three, or all four. A fairly substantial group of officers, numbering in the hundreds, displays none of the patterns. These are officers who remained on patrol for eleven years, obtained average or below-average numbers of awards, and were not a discipline problem for the Department. The fact that it is not possible to tell from records currently maintained by the Department whether these officers are good or bad performers reflects the absence of departmental evaluations of performance based on field activities of the officers, a situation which is now being remedied by the Police Department. Such measures will greatly enhance the Department's ability to distinguish effective from ineffective performance.

The termination pattern is of interest because 376 out of 2002 men appointed in 1957 (or 19 percent) had left the Department by 1968.

Although we located the personnel files of nearly all the men who entered in 1957, the bulk of those we did miss belonged to officers who had terminated, so our findings in regard to this pattern are less firm than those to be reported below about the other patterns.

We did not distinguish the men who were asked to terminate from the men who left voluntarily, since it was not always possible to make an unambiguous determination of the cause of termination from the Department's records. Based on data from 307 officers who terminated, we found that the dates of termination tended to cluster around two points. The largest number left in 1959, which is approximately two years after appointment; about 18 percent of those who terminated left in 1959. There was then a decrease in the number leaving in the third and fourth years, with another peak in the fifth year when 12 percent of the terminators resigned. Beginning with the sixth year, the number leaving decreased from year to year.

The officers who left the Police Department did not possess disproportionate amounts of any characteristics which might be considered negative. Indeed, with regard to criminal history, employment and military disciplinary incidents, and prior mental disorder, these men were indistinguishable from the officers who remained on the force. However, those men who left the force had a higher average number of prior jobs than those who remained.

The men who left the force were also younger than the ones who stayed, and therefore fewer of them were married. Among the married men, those with greater family responsibilities (as measured by the number of debts and children) were more likely to remain on the force. The men who terminated their employment with the Department were considerably better educated than those who remained, and they attained higher ratings by the Department's background investigators. It is particularly noteworthy that one-third of the college-educated recruits in 1957 (8 out of 24) were found to have left the force by 1968, compared to 19 percent of the men who had not graduated from college. Over one-third of officers who left the police force joined the City's

Fire Department, and an additional 19 percent resigned for other jobs they considered better employment.

The data suggest that many men who represent the Department's view of a desirable candidate, especially college-educated men, will have shorter tenure than the average officer unless the Department consciously attempts to determine the source of dissatisfaction among such officers and modifies its personnel policies accordingly.

#### RELATIONSHIPS BETWEEN EARLY BACKGROUND CHARACTERISTICS AND PERFORMANCE

We shall now summarize briefly the relationships found between the first 27 predictor variables described in Section II (early background characteristics) and other characteristics of background and performance.

#### Race

The first background descriptor is the race of the officer. We were able to compare the characteristics of black officers with those of white officers, but the number of Hispanic officers was too small to permit statistical analysis of their differences from the others.

Some of the important differences in the background characteristics of white and black officers appointed in 1957 were as follows:

- o The black officers were slightly older than the whites at time of appointment, and more of them were married.
- o More black officers than white officers were born outside New York City: 29 percent of the blacks compared to 6 percent of the whites.
- o The fathers of white applicants ranked higher than the fathers of black applicants on the scale of prestige used in this study, but the prestige rankings of the occupations of the candidates themselves did not differ by race.
- o The black officers were considerably better educated than the whites. In fact, nearly 40 percent of the black appointees had attended college for at least one year, compared to somewhat over 20 percent of the whites.

There were some interesting characteristics on which black and white officers did *not* differ. No differences by race were found on *I.Q. or civil service scores*, which means that for each range of scores the fractions of black appointees in that range was about the same as their fraction of the total group. It should be noted, however, that every officer in our sample had *passed* the civil service examination for patrolman, and therefore we have no information about the proportions by race among the men who took the examination but failed.

Black officers and white officers did not differ on any aspect of military or employment history, including:

- o whether or not they were a veteran;
- o the number and type of previous jobs; or
- o the number of military or employment disciplinary actions they had in their history.

They also did not differ in the proportions of men who had been arrested prior to appointment, in the number of summonses they had, or in the number of times they had appeared in civil court.

Despite these important factors on which the blacks did not differ from the whites, the black appointees ranked somewhat lower on the rating by the Department's background investigator. In fact, over 25 percent of the blacks were rated *disapproval, poor, or questionable* by the background investigators, compared to 15 percent of the others. This finding has led us to feel that it is important for the Department to assign enough black and Hispanic officers to the Background Investigation Unit so that they can help interpret the characteristics of candidates of like ethnicity and background when there is a question of acceptance.

There were also some important differences by race in *performance* after appointment. The black officers accumulated 65 percent more departmental disciplinary charges than white officers, but they did not differ from whites on the numbers of civilian complaints, allegations of harassment, or criminal charges.

The black officers also did not progress through civil service ranks as well as white officers. In fact, at the end of 14 years there were 5 black sergeants and 1 black lieutenant in our group--which is 6 percent of the total--compared to 15 percent of the whites. However, the black officers did progress into and through the Detective Division better than whites. Almost 30 percent of the black officers were detectives after 14 years, compared to 15 percent of the white officers. These two facts about the career advancement of black officers tend to compensate for each other, so that if we compare the two groups according to their current salary, we find that the black officers have just about the same salaries as white officers, or perhaps slightly higher. The fraction of black officers who left the Department prior to 1968 was the same as the fraction of whites who terminated.

The black officers had fewer days sick than the whites, but counting each illness as a single time sick, disregarding how many days they were sick, we found that black and white officers had the same number of times sick.

#### Age

The men who were oldest at time of appointment were least likely to advance beyond patrol assignments, had low absenteeism for sickness, and were substantially less likely than average to have civilian complaints. This observation does not arise from a departmental policy of placing the older officers in the least hazardous precincts; in fact, a subject's age at appointment was not found to be correlated with the hazard status of the first precinct to which he was assigned. Therefore, the data suggest that older recruits would be best suited for assignment to sensitive communities.

#### I.Q.

In general, men with a high I.Q. advanced through the civil service route to a greater extent than men with a lower I.Q., and they

had more departmental awards. But they did not differ from average on the patterns of misconduct. Men with below average I.Q. were much more likely than average to be assigned to traffic duties, at which they appeared to perform well. Black officers with high I.Q. had a greater incidence of the departmental misconduct pattern than average, including high absenteeism, but they did not have above-average career advancement. This finding is merely indicative of possible problems with relations among the races in the Department, which should be explored further by an interview study which includes some black officers with high I.Q.

#### Civil Service Score

The white officers who scored high on the civil service examination for appointment as a patrolman were found to be more likely than those who scored low to attain later civil service promotions to sergeant, lieutenant, or captain, but the same was not true for black officers. The civil service score was not related to any other pattern of performance, including departmental disciplinary actions, civilian complaints, or absenteeism. For white officers, a high civil service score was slightly predictive of good grades in the police academy--which we did not consider to be a performance measure--but not for blacks.

In short, the civil service examination for patrolmen does not appear to predict any aspect of job performance measured in this study, other than the ability to pass later civil service examinations for promotion.

#### Region of Birth

Black officers born outside New York City had better career advancement, especially to detective assignments, than City-born blacks. Few of the white officers were born outside the City, and therefore no significant patterns emerged for them.

#### Siblings

Among black officers, those with few siblings had a history of more misconduct than those with several siblings. No such patterns were observed for white officers.

#### Occupational History

Occupational mobility was not found to be associated with any aspect of performance among those officers who remained on the force. However, a prior history of employment disciplinary incidents or dismissals was found to be a strong predictor of a future pattern as a disciplinary problem for the Department.

#### Military History

Veterans were not found to be better or worse performers than non-veterans, and the same was true for men with military commendations. However, a military disciplinary record, like an employment disciplinary record, was a predictor of future misconduct; in this case the misconduct included not only violation of the Department's rules and procedures, but also civilian complaints of the use of unnecessary force and complaints of harassment.

#### Arrest History

Men who had been arrested for non-violent crimes prior to joining the force were less likely than other officers to be later charged with harassment of citizens such as false arrest, illegal search and seizure, etc. Seemingly, their own personal experiences tempered their relations with crime suspects. In other respects, men who had a previous history of arrest for non-violent crimes performed no differently from other officers. Although the number of subjects with a prior arrest for a violent crime was too small to obtain statistically significant findings, the data suggested that such men had excessive misconduct later.

#### Civil Court Appearances

Men who had appeared several times in civil court as a party or witness in litigation proved more likely than average to engage in harassment later, although the differences were not large. We therefore

have some indication that a history of court appearances may reflect difficulty in getting along with other people.

#### Other Early Background Characteristics

Aspects of background which might be thought to be negative but which were not found to be related to later performance, among those who were appointed to the force in spite of these characteristics, included:

- o a large number of debts;
- o a prior history of a psychological disorder; and
- o any history of mental disorder in the applicant's family.

Other aspects of background found unrelated to performance were:

- o father's occupation;
- o number of residences or place of residence;
- o marital status and number of children; and
- o number of summonses.

#### Background Investigator's Rating

The Police Department's background investigators, who had access to the pre-1957 data used in this study and in addition interviewed the applicant and his neighbors and employers, were fairly successful judges of how a man would later perform as a policeman. Low-rated candidates were less likely to be promoted than high-rated candidates, and they were more frequently departmental discipline problems. In fact, 25 percent of those rated excellent by the background investigators were later promoted to sergeant, lieutenant, or captain, compared to 9 percent of those rated poor; and 42 percent of those rated poor later had at least one substantiated disciplinary action, compared to 16 percent of those rated excellent. The background investigator's rating did not distinguish men who would later have excessive civilian complaints or allegations of harassment.

#### RELATIONSHIPS BETWEEN LATER BACKGROUND CHARACTERISTICS AND PERFORMANCE

None of the early background characteristics described above were as strong predictors of later performance as the variables which we shall now discuss.

#### Recruit Training Score

An officer's recruit training score was the strongest predictor of his later performance. Men who scored high on written examinations on the material presented in police academy training courses were subsequently much better performers than average. They advanced more rapidly through special assignments and civil service promotions, they had less departmental misconduct and absenteeism, and they had more awards than lower-scoring officers.

Among black officers, recruit score was related statistically only to later career advancement. For example, we found that 45 percent of the blacks with recruit scores of 75 and higher advanced to the Detective Division, compared to 10 percent of the officers with scores below 75. Not a single black officer with recruit training score of less than 75 advanced through civil service promotion.

The overall incidence of misconduct for black officers, although not significantly related to recruit score, appeared to be consistent with the patterns observed for the white officers.

#### Probationary Evaluation

The officer's rating while on probation was found to be the second strongest predictor of later performance. Men who were marked "unsatisfactory" on some aspect of performance after nine months on the force tended to have more allegations of misconduct subsequently, of which more were brought to trial and substantiated, than subjects without derogatory ratings. We found, for example, that 67 percent of the subjects with poor rating had been alleged to have engaged in misconduct, compared to 55 percent of the subjects without negative

ratings. Moreover, 35 percent of the subjects with poor probationary rating had at least one substantiated complaint on their records, while the corresponding proportion for officers without poor evaluations was 24 percent. These patterns reflected higher rates of violating the Department's internal rules and procedures among men with unsatisfactory probation; these men did not have higher rates of civilian complaints, complaints characterizable as corruption, or complaints of harassment.

Subjects with poor probationary evaluations also tended to be absent more frequently than average. We found, for example, that 43 percent of the subjects with poor probationary ratings reported sick 11 or more times in 11 years compared to 36 percent of the subjects without negative ratings.

For the black officers, the relationship between probationary evaluation and police performance was almost identical to that of the white officers. An unsatisfactory probationary rating was found to be a good predictor of above-average incidence of later departmental misconduct and absenteeism, but it was not related to other performance measures.

An important finding concerned the 22 subjects with more than one unsatisfactory notation on their probationary evaluation. This group consistently performed less effectively on the majority of performance measures than other officers.

#### Education

As a group, the men with at least one year of college education who remained on the force were found to be very good performers. They advanced through civil service promotion, but not disproportionately through the detective route of advancement, and they had fewer civilian complaints than average. The men who obtained college degrees, either before or after appointment to the force, exhibited even better on-the-job performance. They advanced through preferential assignments and civil service promotions, they had low incidence of all types of misconduct except harassment, on which they were average, they had low sick time, and none of them had their firearms removed for cause.

A typical example of the difference in patterns between the college graduate and non-college graduate was in the number of civilian complaints incurred over an eleven-year period. Our data revealed that 369 men, or 24 percent of the non-college graduates, had a civilian complaint, compared to only 4 college graduates, or 8 percent. Generally speaking, the older, more educated officer received fewer civilian complaints than the younger, less educated officer.

#### PREDICTING PERFORMANCE

Through multiple regression analysis, it is possible to estimate the average performance levels for officers having specified combinations of background characteristics and to identify the background characteristics which make the greatest contribution to explaining variations in performance among officers. The results of this analysis are summarized in Tables 1 and 2 for white and black officers. (Readers who are interested in details such as multiple correlation coefficients and regression equations should consult the complete report on this study, R-999-DOJ.)

The tables show the background characteristics which were found to be significantly related to one or more performance measures in the regression analysis, listed in approximate order of the strength of the relationship. Thus, for the white officers, the strongest predictor was the recruit training score of the officer, followed by his probationary evaluation, and so on down to I.Q. Background characteristics which do not appear in Table 1 were not found to be significant predictors of later performance patterns in the regression analysis for white officers. Similarly, we see from Table 2 that only five background characteristics were significantly related to later performance in the regression analysis for black officers.

The asterisks on Tables 1 and 2 indicate the patterns of performance which were predicted by each background characteristic. Thus, for example, the recruit score of white officers was related to later career advancement, including above-average awards, and to departmental



Table 1

RELATIONSHIPS BETWEEN BACKGROUND AND PERFORMANCE:  
WHITE OFFICERS

	Career Advancement	Departmental Discipline Problem	Civilian Complaints	Harassment
Recruit Training Score	*	*		
Probationary Evaluation		*		
Background Rating		*		
Military Discipline		*		
Employment Discipline		*		
Education			*	*
Court Appearances			*	
Age				
Civil Service	*			
Marksmanship	*	*		*
Arrest History				
I.Q.	*			

Table 2

RELATIONSHIPS BETWEEN BACKGROUND AND PERFORMANCE:  
BLACK OFFICERS

	Departmental Discipline Problem	Civilian Complaints	Career Type
Recruit Training Score			*
Probationary Evaluation	*		
Court Appearances		*	
Region of Birth			*
I.Q.	*		

disciplinary actions, including above-average absenteeism, but not to civilian complaints or allegations of harassment.

The main observation which can be made from these tables is that the two most important predictor variables are the same for both white and black officers, namely recruit training score and probationary evaluation. Information about an officer's rating on these variables is not available until several months after he has been appointed to the police force, which suggests that the selection process should not be considered to be complete until the end of the probationary period.

To determine the extent to which performance measures would be expected to vary, depending on background characteristics and early performance measures, we calculated some typical values of performance measures from the regression equations. For example, Table 3 shows the average number of complaints we would expect to have been substantiated at a departmental trial over eleven years, for candidates of different backgrounds and early performance levels. We see from this illustration that a hypothetical candidate with three military disciplinary incidents, an employment disciplinary record, the lowest possible recruit score, and 2 "unsatisfactory" marks on his probation report would be expected to have 8.5 times as many substantiated complaints as a man with no military or employment discipline record, a recruit score of 90, and no "unsatisfactory" marks on probation.

A similar disparity in civilian complaints was found between older college graduates and younger high school graduates, as shown in Table 4. Candidates who are 21 years of age at the time of joining the force and are high school graduates may be expected to receive  $6\frac{1}{2}$  times as many civilian complaints as older candidates (age 31) who graduated from college after 11 years on the force. Similar predictions can be obtained from the regression equations for other performance variables such as career advancement, absenteeism, and departmental disciplinary actions.



Table 3

EXPECTED AVERAGE NUMBER OF SUBSTANTIATED COMPLAINTS 11 YEARS LATER

<u>Candidate's characteristics</u>	<u>Average number of substantiated complaints per man</u>
No Military Discipline No Employment Discipline High Recruit Score No Probationary Demerits	0.15
3 Military Charges Employment Disciplinary Record Low Recruit Score 2 Unsatisfactory Probation Marks	1.27

Table 4

EXPECTED NUMBER OF CIVILIAN COMPLAINTS 11 YEARS LATER  
FOR CANDIDATES WITH SPECIFIED AGE AND EDUCATION\*

Education	Age		
	21	27	31
High School Graduate	0.47	0.39	0.34
College Graduate	0.20	0.12	0.07

\* All men assumed to be assigned to "extreme" hazard precincts.

POLICE PERFORMANCE PROFILES

Using the results from our cross-tabulations and regression analysis, we developed profiles of the candidates who are most likely to embody the performance characteristics identified in the factor analysis. These differ for the white and black officers.

1. Officers most likely to be a discipline problem for the Department, with a large number of departmental charges and times sick, have the following characteristics:

Whites

Blacks

Young at time of appointment  
Non-college graduate  
Excessive summonses and debts  
Employment disciplinary record  
Poor background rating  
Low recruit training score  
Poor probationary evaluation

High I.Q.  
Few siblings  
Poor background rating  
Low recruit score  
Poor probationary evaluation  
Born in New York City

2. Officers most likely to incur charges of harassment (false arrest, protested summons, illegal search, illegal detention, etc.) had the following characteristics:

Whites

Blacks

No history of prior arrest  
History of civil court appearances  
Military disciplinary record

No history of prior arrest  
Employment disciplinary record

3. Officers most likely to incur civilian complaints had the following characteristics:

Whites

Blacks

Young at time of appointment  
Non-college graduate  
Military disciplinary record

Low I.Q.  
Many appearances in civil court  
Military disciplinary record

POLICE CAREER PROFILES

There are two major routes for career advancement in the New York City Police Department: civil service promotions and detective appointments.

Civil service promotions lead to the ranks of sergeant, lieutenant and captain and require examinations. Appointments above the rank of captain (e.g., Deputy Inspector, Inspector, Deputy Chief Inspector, etc.) are made at the discretion of the Police Commissioner. The detective selection system runs parallel to the promotion route and includes three grades of detective: third grade, second grade, and first grade. There is no examination required for detective appointments or promotions. Instead, the Office of the Chief of Detectives, with some assistance from the Police Personnel Bureau, selects men for the Division who are then officially appointed by the Police Commissioner. The profiles of detectives and uniformed supervisors are presented below.

Detectives

Older at appointment  
Men with average I.Q.  
More likely to be married  
Not college educated  
Lower civil service scores  
Lower recruit training scores  
Less likely to be an expert marksman

Sergeants, Lieutenants, and Captains

Younger at appointment  
Men with high I.Q.  
More likely to be single  
College educated  
Higher civil service scores  
Higher recruit training scores  
More likely to be an expert marksman

IV. CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

1. A major conclusion of this study is that we were able to anticipate certain important aspects of job performance for black and white police officers from quantifiable information commonly maintained in personnel files by police departments. From these same data we were able to identify some background factors which are commonly thought to be important indicators and which in fact are not related to effective or ineffective police work. The recruit training score and probationary rating, which are measures of early job performance, were found to be useful indicators of later job performance. Some of the background data such as age and education were also found to be useful in determining which men are most likely to perform ineffectively in sensitive areas of the City.

2. The following background characteristics were not found to be related in important ways to our performance measures, for those who were accepted by the Department and remained on the force, even if statistically significant differences were found: civil service exam score; I.Q.; arrest for a petty crime; military service; military commendations; father's occupation; number of residences; aspects of early family responsibility, including marital status, number of children, and debts; reported history of psychological disorder; place of residence; and number of summonses. The hazard status of the precinct to which an officer was first assigned was reflected in the number of civilian complaints he accumulated later, but not in career advancement or other measures of performance.

3. The data showed that the strongest predictors of later performance are derivable from quantitative measures reflecting the subject's primary behavior and experience as observed over a period of time. These include employment and military disciplinary actions, repeated appearances in civil court, education, and performance in the recruit academy and during the probationary period. The Police Department's background investigators are successful at weighing the information available to them at the time of application and arriving at an overall rating having

predictive validity. Measures which are derived from single incidents or written examinations, such as arrest for a petty crime or low I.Q. score, are not indicative of major patterns of bad performance. In fact, arrest for a minor crime was found to be related to a low incidence of harassment after appointment.

4. The performance measures which proved most associated with background characteristics, in order of the amount of variance explained by the data, were career advancement, departmental misconduct, absenteeism, awards, civilian complaints, and harassment. The number of allegations of criminal misconduct, removal of firearms for cause, and invalid claims of injury were not related to our measures of background characteristics. It seems likely that psychological tests of a type not used in this study might be needed to predict these aspects of performance.

5. The background factors used in this study were unable to distinguish levels of performance within the subgroup consisting of detectives. One plausible explanation for the absence of predictive validity for performance of detectives is that promotion of detectives within the Detective Division depends less on standards of performance than on other factors such as seniority or happenstance of who may be in position to influence appointments at any given time. Our findings that individual performance measures were amenable to prediction for the total active cohort, and also for certain subgroups (e.g., black officers) which were even smaller in size than the subgroup of detectives, supports our notion that both background factors and recruitment factors discriminate among subjects when actual performance differs.

\* \* \*

Because findings and conclusions of the type described here have been found to vary when conducted in other police departments or at other times, we would not wish to see our results applied as if they had universal validity. However, the methods we used could be readily adapted to the personnel files of nearly any police department in the country, and further research along these lines, including validation studies, would indicate the extent to which the New York City 1957 cohort shows typical patterns of relationships between background characteristics and performance.

#### RECOMMENDATIONS

Although this work was undertaken with a view toward obtaining findings of interest to police departments across the country, inevitably we were led to certain observations which are specific to the New York City Police Department, the source of our data. Our recommendations to the Department, based on these observations, are given below.

1. Although many differences in detail were found between the patterns of background variables vs. performance variables for whites and the patterns for blacks, on balance the major implications for police selection were similar for both races. We therefore recommend as practical and feasible a single selection procedure, as described below, to be applied to all applicants without regard to race.

(a) In the current procedure, all candidates who qualify for appointment in regard to statutory and medical requirements are reviewed by Police Department background investigators. This part of the appointment process should certainly be retained. Although we have no way of knowing what performance levels could be expected from men who fail the civil service examination for patrolman, there is no indication from the data that men who pass but score low on this exam are any less satisfactory than men who score high. Therefore, the findings of this study are not conclusive in regard to the effectiveness of the exam as currently used in the appointment process, and they do not suggest how the passing grade should be established. Considerations beyond those addressed in this study apply to the use of a civil service examination. For example, at the very least, it weeds out many applicants who are not serious enough about becoming policemen to show up at an examination center, and it has traditionally been viewed as a method of preventing favoritism from influencing municipal appointments.

(b) We propose that the background investigators provide their overall rating of each applicant's suitability for appointment

taking into account the findings of this study as to the significance of various aspects and characteristics of background.

- (c) Potential discrimination by race in this procedure, which might have been a factor in 1957 but has not been proved to exist currently in the New York City Police Department by any data known to us, should be avoidable by assigning a sufficient number of black and Hispanic investigators to review the backgrounds of candidates. These investigators could help interpret the characteristics of candidates of like ethnicity and background when there is a question of acceptance.
- (d) No candidate should be discouraged from continuing his application on the basis of missing or "negative" information in any of the categories, such as prior arrest for nonviolent crime, absence of military commendations or military service, etc., which this study found did not predict later bad performance. We feel that the candidate hearing boards, which review the decisions of background investigators, are a useful part of the selection process, because, although the investigators' ratings have predictive validity, mistakes are nonetheless made.
- (e) Finally, an extensive program should be developed for evaluating the performance of recruits. Those recruits who perform poorly should be terminated in much larger numbers than has ever been done in the past, based on low grades in the Police Academy and unsatisfactory probationary evaluation. Since these characteristics were the strongest indicators of later poor performance, we feel that the benefits to the community in terms of improved police service and avoiding the expense of salaries and retirement benefits for unsatisfactory policemen clearly outweighs the disadvantages of possible false

rejection of men who perform poorly in their first year on the force but might improve later. However, the potential effects of an increased rate of dismissing probationary patrolmen on the morale of recruits and on the type of candidate who applies to the Department should also be considered carefully before beginning such a program.

2. Since men who obtained college degrees either prior to or after joining the force were good performers, the Department should attempt to attract and retain such men and should assist them in continuing their education. However, we believe that men of average intelligence and no college education are still needed in substantial numbers for assignments such as traffic duty, where they appear to perform well and become stable, satisfied employees.

3. Officers who are older at time of appointment and have advanced education should be assigned in greater numbers on a permanent basis to sensitive areas of the City, and also they should be heavily represented in those units which are routinely mobilized and assigned to trouble spots. This is a direct result of our finding that the older and more educated subjects were less likely to incur civilian complaints than their younger, less educated counterparts.

4. The Police Department should broaden the parts of the Police Academy training program which are aimed at improving police performance during police-citizen transactions. Similar refresher courses should also be designed and required of officers already on the force. The need for expanding programs of this kind is indicated by the fact that officers' performance in the Academy training program was a strong predictor of internal departmental performance measures such as career advancement, departmental disciplinary actions, and absenteeism, but it was not predictive of those aspects of behavior which generally involve police interactions with citizens, such as civilian complaints. In addition, the finding that officers with a prior arrest for a petty crime had statistically fewer complaints of harassment suggests the need for additional courses such as those involving role-playing, in which recruits would be subjected to the experience of being "arrested."

5. Although our research led to a number of separate performance measures, most of them reflect a departmental, rather than a community, view of officers' performance. We urge that the Department devise additional measures, particularly positive ones based upon field activities and taking into account police-community transactions. Admittedly this is a difficult task, but the benefits to both the community and the Department in terms of increased police performance and effectiveness make this work essential.

6. A computer-based information system for police performance data should be developed, incorporating the pieces of data on performance found to be important in the present study. Most of this information is currently collected by separate units in the Police Department, but in its present form it is virtually useless. The proposed data system would integrate the relevant pieces of information having predictive value and provide a data base for computing general performance scores for each officer.

7. Available measures of performance of detectives proved not to be predictable, suggesting that the measures themselves are not satisfactory indicators of actual performance. We therefore support the Department's efforts to develop new criteria for selection and promotion of detectives.

**END**