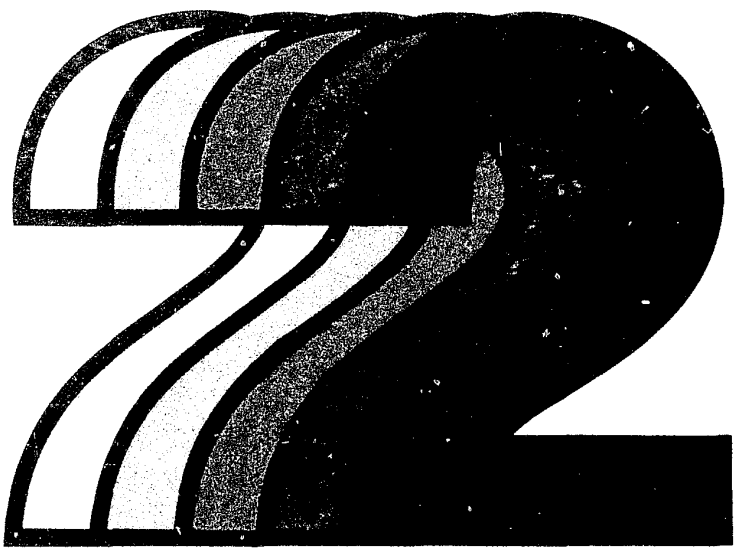
The National Manpower Survey of the Criminal Justice System

Volume Two
Law Enforcement



National Institute of Law Enforcement and Criminal Justice
Law Enforcement Assistance Administration
U. S. Department of Justice

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FOREWORD

The criminal justice system is a labor-intensive enterprise, vital to the nation and beset with manpower problems. One of the most recent attempts to help alleviate some of the problems was the National Manpower Survey. The Congressional mandate for this survey was written in 1973, the survey was begun in 1974 and completed last year.

This volume deals with law enforcement personnel at the city, county, and state levels, including police, sheriffs, and highway patrol agencies. It includes an assessment of current and future manpower, recruitment and retention, training and education, and a set of recommendations for improving the manpower status.

The survey results do not provide final answers to all of the manpower issues. In particular, the assumptions built into the model for projecting manpower requirements may have to be modified in light of additional experience. Nevertheless, the Institute believes the study represents a significant advance in the tools available to deal with manpower problems. We hope it will be of value to the many hundreds of state and local officials who must plan for manpower needs.

BLAIR EWING
Acting Director
National Institute of Law Enforcement
and Criminal Justice

PREFACE

The National Manpower Survey of the Criminal Justice System is an LEAA-funded study conducted in response to a Congressional requirement, under the 1973 Crime Control Act, for a survey of personnel training and education needs in the fields of law enforcement and criminal justice, and of the adequacy of federal, state, and local programs to meet these needs.

This volume on law enforcement personnel is one of a series of eight volumes (listed below) which comprise the full report of the National Manpower Survey. The overall scope of the study, including descriptions of methodology and data sources, are included in the Summary Report (Volume I) and—in more detail—in Volumes VI, VII, and VIII. An extensive analysis of law enforcement education and training programs is included in Volume V, and supplements the training and educational needs assessments included in the present volume.

The six volumes published under this study are:

- Volume I (Summary Report)
- Volume II (Law Enforcement)
- Volume III (Corrections)
- Volume IV (Courts)
- Volume V (Education and Training)
- Volume VI (Manpower Planning)

ACKNOWLEDGEMENTS

This study was made possible by the active cooperation of many thousands of law enforcement officials who took time from their busy schedules to respond to the mailed questionnaires of the National Manpower Survey, or to meet with our field representatives.

Our staff also benefitted greatly from the advice and counsel of a large number of leading members of the practitioner, academic and research community, concerned with problems of law enforcement manpower and training, who assisted us in identifying key issues and research sources.

This study was conducted under the general direction of Harold Wool, Project Director and Frank McKernan, Deputy Project Director. Harold Wool was also responsible for preparation of the final report.

Finally, we are especially indebted to our senior administrative and research support staff members, Lorraine Halsey and Elizabeth McGovern, who respectively provided the research administration and library reference services for the study, as well as the following members of our secretarial staff: Margaret Takenaka, Lorraine Staliper, Cynthia Payne and Jacqueline Rupel.

CHAPTER I. EXECUTIVE SUMMARY

A. Current Manpower Assessment

- *Employment in state and local police protection agencies has grown rapidly—from about 340,000 in 1960 to nearly 600,000 in 1974.* After allowing for population growth, this represents an increase of 49 percent in per capita police employment. However, crime rates have grown much more rapidly, by 157 percent, over the same period.
- *In the face of sharply increased crime-related workloads, law enforcement executives report that their most serious manpower problem is inadequate staffing, resulting from budgetary constraints.* Their estimates of additional manpower needs average 27 percent for police departments and 34 percent for sheriffs' departments. The greatest manpower deficits are reported by very large police departments, with 1,000 or more employees, and by the smallest agencies. Comparison with an earlier 1965 survey of police chiefs indicates that—despite employment growth—heads of large city police departments now consider that they require a much greater addition to their force (29 percent) than they reported in 1965 (11 percent), whereas medium-sized agencies reported about the same manpower deficit in both periods (17–20 percent).
- *The growing complexity of police department organizations and the great diversity of functions performed do not permit any single generalizations as to optimum police staffing ratios for purposes of crime control and prevention.* Only about 59 percent of all police and sheriffs' employees consist of basic line officers directly engaged in patrol or investigative duties. A major portion of patrol officer time, moreover, is devoted to non-crime-related duties. Most police chiefs regard their principal goal to be overall service to their communities rather than crime control alone.
- *This is illustrated by an analysis of factors affecting variation in per capita police employment in 711 cities, ranging in size from 25,000 up to 1 million population.* The rate of street crimes, as measured by the robbery rate, was identified as the most important single factor explaining the wide differences in these ratios. However, differences in the amount of taxes paid per capita (i.e., in the community's ability and willingness to pay for public services, generally) in different communities, were second in overall importance, and were found to be the most important factor for the smaller cities studied. Moreover, about half of the observed differences could not be explained by either crime-related factors or by the community's fiscal situation and must be attributed—in part—to differences in police organization and in staffing practices.
- *A review of a number of studies, attempting to assess the relationship between levels of police staffing and crime rates, has indicated mixed results.* A number of these studies do indicate that higher police employment is associated with somewhat lower crime rates than would otherwise be expected; other studies yielded negative findings. On balance, these and related studies suggest that many other social and economic forces, as well as related activities by other components of the criminal justice system, will have a greater impact upon crime rate trends than any realistic increase in police staffing levels. Nevertheless, based on our analysis of actual police employment ratios, communities experiencing rising crime rates can be expected to respond by providing some augmentations to police manpower, in addition to other possible measures.

B. The Manpower Outlook

- *The rate of growth in police employment is expected to be much slower between 1974 and 1985 than during the first half of the 1970's.* Based on NMS projections, the number of "full-time equivalent" employees of state and

local agencies will increase by 33 percent, from 541,000 in 1974 to 718,000 in 1985. The projected annual rate of growth of 2.6 percent compares with an average annual increase of 4.5 percent between 1970 and 1974 and is lower than projected for other major categories of criminal justice agencies—although still more rapid than expected employment growth of other categories of state and local employees.

- *Key factors contributing to this slowdown in growth are:* (1) a projected slowdown in the growth of crime rates during 1974–1980, followed by a declining trend between 1980–85—primarily due to the projected decline in the number and proportion of youth in the population, (2) a projected reduction in the rate of growth of total state and local budgets, particularly during the 1974–80 period, due to slow recovery from the recession, and (3) an increased allocation of the available criminal justice funds to other sectors, such as corrections and court-related agencies.
- *Nonsworn or civilian employment in law enforcement agencies will continue to increase more rapidly than employment of sworn officers, concurrent with increased requirements for support-type personnel such as dispatchers, data processors and investigative technicians.* By 1985, nonsworn employees will comprise 25 percent of total police protection personnel, as compared with 21.7 percent in 1974.
- *State and county agencies will increase their employment more rapidly than city police departments' reflecting shifts in population and crime rates as well as more rapid growth in certain functions performed by state or county-level agencies.* By 1985, the latter agencies will account for 37 percent of total state and local police protection employment as compared to 32 percent in 1974.
- *An analysis of four specific developments, which might be expected to affect future police staffing significantly, indicates that none of these is likely to cause a substantial change in the foregoing projections.* As perceived by police executives, the trend towards decriminalization of certain victimless offenses, such as public drunkenness, will permit better utilization of officer time for response to more serious crimes rather than resulting in substantial reductions in overall staffing needs. The trend towards civilianization—provided for in our basic projections—is not likely to accelerate, due to the anticipated overall slowdown in police employment growth. Increased use of team policing may require broader training of patrol officers, but should have little or no effect on total personnel needs. Finally, measures to consolidate very small agencies—although intrinsically desirable—would also not necessarily result in manpower economies.

C. Recruitment and Retention

- *Personnel turnover rates have been much higher in small police departments and for sheriffs' agencies than for large or medium-sized police departments—generally reflecting more favorable career opportunities and salary rates in the latter agencies.* Voluntary resignation rates of officers in police departments with 400 or more employees averaged less than 4 percent in FY 1974 as compared with 8 percent for all sworn officers and 16 percent for deputy sheriffs.
- *Annual recruitment needs for police officers are expected to decline from 61,700 in FY 1974 to 50,400 in 1974–80, as a result of reduced rates of voluntary resignations and slower employment growth.* They are expected to return to an annual rate of 56,350 per year between 1980 and 1985 as a result of an increase in personnel turnover, assuming a general improvement in the job market.

  These trends, in conjunction with a projected increase of about 13 percent in the number of persons in the prime age group for officer recruitment (i.e., ages 21–24), and in the educational level of the members of this age group, indicate a generally favorable recruitment climate for police agencies in the coming 10-year period.
- *Minority group members, in relation to their population share, were significantly underrepresented in 1974 in all major categories of police agencies—particularly in state police departments and in the South.* They were also disproportionately concentrated in the lower rungs of the occupational ladder, both among sworn and nonsworn employees.
- *A continuation of current, FY–1974, patterns of hiring and retention of minority personnel would not result in minority police employee-population parity by 1985.* To bring the racial composition of sworn police employment more in line with the general population by 1985 would

require a more intensive effort in terms of selection, recruitment, and retention of minority personnel. It would require over the next decade that the minority share of recruits grow from the level of 13 percent in 1974 to an average of 18 percent for the 1975–85 period.

- *Women comprised only about 2–3 percent of total sworn officer personnel in 1974, and were still predominantly assigned to specialized duties, such as matrons, dispatchers, juvenile units, or clerical work.* Based on recent recruitment and turnover experience only a limited increase in this ratio to 3.9 percent would occur by 1985.

D. Education

- *There has been a remarkable rate of growth in the levels of educational attainment of sworn personnel over the last 15 years.* The pattern has been especially marked in the last five years. The proportion of sworn personnel with less than a high school education was 37 percent in 1960, 19 percent in 1970, and only 10 percent in 1974. The proportion of sworn personnel with some college attainment went from 20 percent in 1960 to 32 percent in 1970 and to 46 percent in 1974.
- *The rate of growth in education is accounted for both by the increase in the level of educational attainment of sworn personnel and by the educational upgrading that in-service personnel have achieved.* Almost twice the percentage of 1970–74 new entrants had attended college at the time of their entry as had entrants in the preceding cohorts. Also, the rate of in-service upgrading that occurred between 1970 and 1974 appears to have been several times that which occurred in earlier time periods.
- *The growth in law enforcement education has created an "educational generation gap."* Line personnel and supervisors who are typically younger and have less tenure than managers have, on average, somewhat higher levels of educational achievement than do managers. For example, only 8 percent of line personnel have failed to graduate from high school, but 16 percent of the managers are not high school graduates. Forty-two percent of all managers have completed at least one year of college compared with 47 percent of patrolmen and 59 percent of supervisors.
- *Levels of educational attainment of sworn personnel vary considerably by Census region and by state.* The Pacific and Mountain regions have both very high percentages of personnel with some college achievement and very low percentages of noncollege graduates. The East South Central region has both the lowest percentage of personnel with some college and the highest percentage of non-high school graduates. There is evidence to suggest that the education level of the male working force and the percentage of students enrolled in public colleges in a state is related to the education level of the state's population.
- *Large agencies are considerably more likely than small agencies to have at least a high school diploma entrance requirement.* Only three percent of all agencies with 400 or more employees have less than high school graduation as a selection standard, whereas 14 percent of agencies with fewer than 150 employees do not have a high school diploma entrance requirement. The education level of direct executives also varies considerably by size of agency. The responding chief executives in larger agencies have, on average, considerably higher levels of education than do executives from smaller agencies.
- *Research evidence that would either confirm or deny the need for college-educated sworn personnel does not exist.* The results of the several studies that were reviewed are contradictory.

E. Training

- *There has been a considerable growth in entry-level training in the last several years.* Today, virtually all agencies in jurisdictions of 25,000 or more employees offer some entry-level training to their new employees. Within the last five years the duration of training offered to entry-level personnel has increased in almost 80 percent of the agencies surveyed.
- *Government funding has played a significant part in the growth of training.* More than 50 percent of all law enforcement academies surveyed have received funding from either a state planning agency, a standards and training commission or from a national or regional LEAA office.
- *In 1975, approximately 90 percent of all new recruits received some entry-level training.* The agencies that do not provide entry-level training

are predominantly small and concentrated in states that are heavily rural.

- *Considerable progress is being made in the duration of entry-level training.* Approximately 63 percent of all new entrants in 1975 received at least 400 hours of formal training. The 37 percent that received less than 400 hours are concentrated in the smaller agencies.
- *Despite this impressive growth in the duration of entry-level training, the NMS job analysis results imply that serious deficiencies still exist.* Incumbents report that they learned a majority of the job's tasks through on-the-job experience rather than by formal training. Trained recruits are rated as very deficient with respect to several important areas of knowledge such as "interviewing and eliciting information," "local laws and ordinances," and "crisis intervention/ dispute settlement."
- *These results suggest the need for structured field training and for formal classroom training in crisis intervention and other topics relevant to the peace keeping role.* The available evidence suggests that there is relatively little structured field training and that the percentage of classroom time devoted to "human values and problems" is somewhat less than has been recommended. Although most agencies offer in-service training of some type, incumbents receive such training infrequently. Only 36 percent of all sworn personnel have ever participated in an in-service training course. Less than 4 percent of all incumbents of responding agencies have received in-service training in the last year.
- *The assertion that formal supervisory training should be given to all newly appointed supervisors is supported by the results of the job analysis and of the executive survey.* The job analysis results show that the supervisor's job involves more complex tasks and a wider range of skills than does the patrol officer occupation. Ninety percent of the law enforcement chief executives surveyed conclude that training is necessary for newly appointed supervisors.
- *Despite this concensus, training for newly appointed supervisors is somewhat uncommon.* Only 37 percent of agencies surveyed offer such training. The results of the NMS job analysis suggest that even in the case of agencies that provide supervisory training, newly appointed supervisors are not sufficiently prepared.
- *Training for executives and mid-level managers is also relatively infrequent.* Management training is indicated by all executives to be especially crucial in such functional areas as personnel management, budgeting, and collective bargaining. Only 46 percent of all managers have received specialized in-service training of any kind.

CHAPTER II. CURRENT MANPOWER ASSESSMENT

A. A Profile of Law Enforcement Agencies

Police protection agencies, as defined by the Census Bureau, are those public agencies which have the functions of "enforcing the law, preserving order, and apprehending those who violate the law."[1] Under our federal system of government, these functions are performed, to some extent, by all levels of government: federal, state, and local. However, local units of government have the primary responsibility for general police protection, whereas state and federal agencies have more specialized and limited roles. Thus, as shown below, of a total of 654,000 public employees of police protection agencies in 1974, 75 percent were employed by local governments.

	Total Employment, 1974 *	
	Number	Percent Distribution
Total, all police protection agencies	**653,600**	**100.0**
Local	486,900	74.5
State	97,200	14.9
Federal	69,400	10.6

* Includes full-time and part-time employees.

Source: U.S. Department of Justice and U.S. Bureau of the Census, *Expenditure and Employment Data for the Criminal Justice Systems*, 1974, Table 3.

1. *Local police protection agencies.* The highly decentralized nature of the local police protection function is illustrated by the fact that, in 1974, the 487,000 employees of local agencies were employed in some 19,000 separate city and county police departments or sheriffs' offices. These include over 15,000 general purpose local police departments, nearly 600 "special purpose" police agencies (which provide police protection for special jurisdictions such as airports, parks, or transit systems) and over 3,000 county sheriffs' departments. About two-thirds of these agencies are located in small cities or rural jurisdictions, with populations of less than 10,000, and typically employ fewer than 10 personnel.[2] At the other extreme are the metropolitan police departments of our large cities. The 34 largest of these departments employed a total of 144,000 personnel in 1974, or more than one-third of all employees of city police agencies.[3]

The degree of functional specialization—and the scope of services performed by police agencies—tends to vary directly with their size. Virtually all local police agencies perform, to some extent, the basic functions of patrol, criminal investigation, traffic control, and emergency communications. Larger departments, however, are much more likely to have specialized units for crime-specific investigations; juvenile units; special tactical operations squads; traffic control and safety units; crime laboratories; police training academies; community relations and crime prevention units; gun registration; and specialized administrative offices or units for such functions as fiscal management, personnel administration, data processing, and research. County sheriffs' offices, in addition, are normally responsible as well for operation of local jails and for certain civil and court-related functions.

Most small agencies, on the other hand, rely on larger adjacent departments, or on state police departments, for many of these specialized services. Thus, among the 1,500 local police departments in jurisdictions with less than 17,000 population surveyed by NMS; 91 percent relied on other agencies for crime laboratory services; 74 percent for training and for lock-up facilities; 56 percent for communications and dispatching; and 51 percent for crime scene analysis.

2. *State agencies.* The state law enforcement role almost always includes such functions as highway patrol, general patrol in rural areas, and provisions of statewide criminal investigative and laboratory services. State agencies may also operate statewide or regional training academies and may perform a number of auxiliary functions or services, such as motor vehicle registration and drivers' license examinations. The single most important function of state police agencies, as a group, is, however, related to highway patrol and traffic law enforcement. A recent survey of the largest police agencies in each state, conducted by the International Association of Chiefs

of Police (IACP), indicated that 57 percent of employees' time in these agencies was devoted to the traffic function, as compared to only 11 percent to crime-related activities, and 32 percent to administration, special services or other functions.[4]

3. *Federal agencies.* The federal police protection function is limited to enforcement of federal laws, including crimes of an interstate nature; to provision of police services in federal property and buildings; and to provision of various types of technical and training assistance to state and local law enforcement agencies. Although more than 20 federal civilian agencies report separate police protection functions or units, nearly one-half of the 69,000 federal employees, in 1974, were concentrated in two of these agencies—the FBI, with nearly 20,000 employees and the Bureau of Customs, with 14,000 employees, in 1974.[5] Other federal agencies with sizable numbers of employees for specialized law enforcement roles include the Bureau of Narcotics and Dangerous Drugs, the Immigration and Naturalization Service, the Postal Inspection Service, the General Services Administration, the Internal Revenue Service, and the Secret Service. Federal agencies are not included within the scope of the National Manpower Survey. However, the training and education volume of this report does include a description of the role of the FBI, and certain other federal agencies, in provision of training to state and local law enforcement employees.

B. Police Manpower and the Crime Rate

There have been many studies with the common objective of attempting to measure the direct impact of police effort or of specialized types of police activity upon the crime rates, after allowing for the influence of various other exogenous social and economic factors affecting crime. The theoretical premise underlying most of these studies has been that an increase in police resources, effectively directed, will tend to increase the risk to the criminal of apprehension and punishment, and hence serve as a deterrent to crime. The results of studies in this area have been mixed. They clearly suggest the need to avoid broad generalizations—given the wide diversity in patterns of police manpower utilization and in the crime situation, in different jurisdictions and regions. It may well be that, at present levels of police employment, moderate increments of additional police manpower or funds may have less impact upon crime deterrence and crime control than more effective deployment and management of the resources already available. But this, too, is necessarily conjecture, pending more systemmatic analysis of alternative police deployment strategies and of different styles of police management.

Any assessment of current and prospective manpower needs for law enforcement agencies must, moreover, take into account first, the multiple goals and responsibilities of these agencies, and secondly, the fact that their potential for crime deterrence is closely linked to the efforts of other elements of the criminal justice system—the prosecutors, the courts, and corrections.

As is now generally recognized, only a limited proportion of total police effort is directly related to crime-control activities, such as responding to calls concerning commission of crimes, investigation of crimes and apprehension of criminals. The basic line police officers—those directly engaged in patrol and investigative activities—constitute, on the average, only about one-half of total law enforcement manpower. As has been documented in a number of detailed analyses of patrol officer activities, a major portion of their duty time—typically as much as 80 percent—is devoted to such activities as routine patrolling, traffic control, responding to various types of non-crime-related calls for service, and to a variety of nonpolice related activities.[6] Many of the "noncrime related activities" performed by patrol officers and by other law enforcement employees are, of course, highly essential community services. A typical police department is under continuing pressures to expand the scope of many of these services. In this context, it is readily understandable that law enforcement executives responding to our survey estimated that they needed very substantial increases in manpower in order effectively to fulfill *all* of the duties and responsibilities with which their agencies were charged. Our analyses indicated, too, that—particularly in smaller communities, where serious crimes and fear of crime are less rampant than in large cities, police employment ratios are most influenced by the community's level of per capita tax income, i.e., its ability to pay for police services, rather than by crime rates. The more affluent suburban communities are much more ready to pay for a variety of police services, many of which are not directly crime-related, than are those with more limited tax revenues.

A majority of law enforcement executives also have a realistic appreciation of the practical limitations of their agencies' roles, in relation to crime control. The NMS asked these executives: "How

much improvement in crime control and the administration of justice do you think would be achieved through changes in staffing, organization, and policies of law enforcement agencies in general (local, county, and state)?" Even though this question addressed policy and organizational changes, as well as staffing, only 41 percent of the 1,185 police chiefs in jurisdictions of 17,000 or more population who responded expected that such changes could produce "a great deal of improvement" in crime control. The majority (51 percent) expected "some improvement," 7 percent expected "little or no improvement."

Similarly, when these executives were queried as to the "most important goals" of their agencies, nearly two-thirds (56 percent), chose the general goal of "community satisfaction" with the police department, while only 33 percent identified more specific measures of crime control, such as reduced crime rates.

The experience of the past decade, particularly—when very large increases in police manpower were accompanied by much greater increases in crime rates—has clearly convinced the majority of these executives that crime trends are largely influenced by social and economic forces outside of their control, and that the effectiveness of their agencies depends—not only on their own efforts—but on the extent of cooperation they receive from the community, as a whole, and from the concurrent activities of other elements of the criminal justice system.

NOTES AND REFERENCES

1. U.S. Department of Justice, LEAA and U.S. Bureau of the Census, *Expenditure and Employment Data for the Criminal Justice System* (1974), p. 538.
2. U.S. Bureau of the Census, "Criminal Justice Agency Directory File." Processed. (Washington, 1975).
3. U.S. Department of Justice, LEAA and U.S. Bureau of the Census, pp. 100–110.
4. International Association of Chiefs of Police, *Comparative Data Report* (1974), p. 111.
5. U.S. Department of Justice, LEAA and U.S. Bureau of the Census, pp. 22–23.
6. National Commission on Productivity, *Opportunity for Improving Productivity in Police Services* (1973), pp. 13–36.
7. James Q. Wilson, *Thinking About Crime* (Basic Books, 1975), p. 96–97.

CHAPTER III. THE OUTLOOK FOR LAW ENFORCEMENT EMPLOYMENT: MANPOWER PROJECTIONS TO 1985

A. Introduction

One of the major tasks of the National Manpower Survey is to project future personnel needs of state and local criminal justice agencies, by occupation, for a 10-year period to 1985. These projections and related estimates of recruitment and training needs are in turn designed to assist in determining the relative priorities for academic and training assistance among various sectors and occupations in the criminal justice system.

The estimates presented in this chapter portray the probable future trends in employment of law enforcement personnel. They are not an attempt to estimate "optimal" requirements for such personnel. In view of the uncertain relationship between police staffing and crime control, as discussed in the preceding chapter, a goals-oriented manpower projection for police manpower is neither practicable nor realistic as a basis for program planning.

B. The Projection Scenario

The basic premise underlying the NPA Manpower Projection model is that the future demand for law enforcement and other criminal justice services will be largely determined by two key factors, in addition to population growth. These are: (1) the future trend in crime rates and (2) trends in the growth of total budget or fiscal capacity of state and local governments, as measured by their projected total expenditures for all purposes. In other words, as in the case of the demand for other products or services, the future need for law enforcement services and the community's willingness to pay for these services will jointly affect future employment trends.

Both crime rates and the levels of government spending are, in turn, influenced by a large number of social, economic, and institutional factors. In the case of crime rates, recent analyses of criminal behavior, in contrast to earlier criminalogical studies, have attempted to interpret most forms of crime within a rational decision making framework: individuals are more likely to pursue criminal careers, rather than legal activity, if the economic returns from crime are perceived to be better than the alternatives available to them, after allowing for the risks entailed in criminal activity. Thus, those who are poor, unemployed, and economically disadvantaged, are more prone to engage in crimes such as robbery because they have little to risk and because their alternative ways of earning a livelihood are so restricted. Large urban centers, which include both concentrations of poor, minority populations and concentrations of wealth—i.e., "crime opportunities"—are thus more prone to higher crime rates than are smaller, more homogenous, middle-class communities. Youth, and particularly disadvantaged youth, are much more crime prone—both because they have the highest unemployment rates and the most limited earnings potential in legal pursuits, and because they are more likely to take risks than more mature individuals. However, to the extent that law enforcement and criminal justice agencies increase the risks of apprehension and punishment, they increase the "costs" of criminal activity and serve to deter crime.

The above analysis thus suggests some of the key variables that may affect future crime trends. Among them are future trends in the level of general economic opportunity, as measured by such factors as the unemployment rate and per capita income, trends in the proportion of youth in the population, and trends in the concentration of population in urban areas. In addition, community investments in law enforcement and criminal justice agencies can affect these trends to the extent that they increase the probabilities of arrest and imprisonment. These and similar variables have all been found to contribute significantly to explanation of variations in reported crime rates.

Among these factors, one of the most important—and predictable—is the proportion of youth in our

population. The sharp escalation of crime rates in the mid-1960's coincided with the "coming of age" of the large, post-World War II, baby-boom generation. During these years, juveniles and younger adults accounted for a large and growing share of those apprehended for many categories of serious crime. The outlook now is for a reversal of this trend. In the past decade and a half, rapid growth in the number of youths and young adults, aged 15–24 years, increased that group from 13.4 percent of the population in 1960 to 18.7 percent in 1974. This proportion will stabilize in the period 1974–80, and will drop significantly to 16.4 percent by 1985.

Another demographic factor—the proportion of our population concentrated in metropolitan areas—is also expected to decline, resulting eventually in a lower crime rate. Over a period of decades, the proportion of our population concentrated in large metropolitan areas has steadily grown—and these areas, as has been noted, have included the highest concentrations of crime. Between 1960 and 1970, the percentage of the population residing in metropolitan areas (SMSA's) rose from 63.3 percent to 68.6 percent, with a corresponding decline in the proportion living in smaller non-metropolitan communities or rural areas. This pattern now appears to have been reversed. Recent population growth has been more rapid in the non-metropolitan areas, even including those well removed from commuting range, than it has been in metropolitan areas.[1] The proportion of the population living in SMSA's has declined steadily in each year since 1970, to 67.2 percent in 1974. This reversal in trend is probably due to a variety of factors, including changing patterns of industrial location, the regional movement of population to the "Sun Belt" states and the growth in the retired population. A continuation of the recent decline is assumed in our scenario. In 1974, SMSA boundaries were redefined to increase the number of SMSA's to 266 and the percent of population in SMSA's to 72.8. By 1985, the population in these 266 SMSA's is projected to decline to 71.2 percent of the total. This population shift may be accompanied by growing crime rates in outlying areas—a pattern already suggested by recent trends in crime statistics.[2] However, in view of the very sharp differences in crime rates among communities of different sizes, the net effect is expected to be favorable.

Other factors affecting the future demand for law enforcement services can be projected with much less confidence than the demographic trends described above. The most critical of these is the future state of the nation's economy. The overall level of economic activity, as measured by such statistics as the gross national product (GNP), has a direct impact on governmental tax revenues and hence on the ability of state and local governments to expand public employment. It also has a significant effect upon crime rates, in view of the observed direct relationship between unemployment and crime. However, despite the development of increasingly sophisticated economic models, any longer-term projections of the nation's economy are subject to large potential error, simply because they entail numerous assumptions concerning future national fiscal and economic policies, as well as international economic and political conditions.

The economic scenario followed in the NMS manpower projections is based on the National Economic Projections Series of the National Planning Association. These projections provide short-term forecasts of probable economic trends to 1980 and are designed to portray an attainable growth path for the economy beyond 1980, resulting in relatively full employment by 1985. The short-term economic outlook provides for a relatively low average GNP growth rate of 2.7 percent annually (in constant dollars) during the period 1974–80, reflecting only partial recovery from the 1974–76 recession. This is followed by a substantially higher GNP growth rate of 4.2 percent annually during the period 1980–85, concurrent with a projected reduction in the unemployment rate from about 7 percent in 1980 to 5 percent in 1985.

The above demographic and economic trends imply the following outlook for the key controlling variables affecting prospective law enforcement employment:

- *The crime rate,* as measured by the FBI Index for Serious (Part I) Offenses, is expected to continue to grow between 1974 and 1980 due, in part, to the continued high average unemployment levels projected for this period. Its projected average growth rate of 1.8 percent per year between 1974 and 1980 is much lower than for recent periods, however, as a result of the stabilization of the proportion of youth in the population. A significant decline in the crime rate is projected for the period 1980–85, at a rate of 3.9 percent annually, reflecting mainly the combined effect of the reduction in the proportion of youth in the population and the assumed reduction in unemployment. Other factors contributing to the anticipated decline in

the crime rate are the projected increase in criminal justice expenditures and employment and the likely trend towards a reduction in the proportion of the total population living in metropolitan areas.

- *Total state and local expenditures,* the index of the general ability of these governments to pay for law enforcement services, are projected to grow at a relatively low annual rate of 3.3 percent between 1974 and 1980, in constant dollars, as a result of the continuing effects of the recent economic recession upon state and local revenues and of the limited recovery projected to 1980. This is a continuation of the slow rate of increase experienced in recent years. For example, these expenditures grew at an annual rate of 5.0 percent between 1965 and 1970, in constant dollars, reflecting the growing revenues of state and local governments during the latter period, rising costs, and growing community demands for a wide range of public services. The rate slowed to 3.2 percent in 1971–74, and approximately the same rate is projected through 1980. A more rapid growth of these expenditures, at a rate of 4.8 percent per year, is projected for 1980–85, reflecting the assumed recovery to a high employment economy by the latter year.

- *Criminal justice expenditures by state and local governments,* for all categories of law enforcement and criminal justice agencies are projected to increase by 52 percent, in constant dollars, between 1974 and 1985. A growth rate of 4.3 percent per year is projected between 1974–80. This rate of growth is considerably higher than the projected growth rate of 3.3 percent for total state and local expenditures—reflecting the effect of the continued growth in crime rates and the consequent high priority assigned by most communities to law enforcement and related services. The projected growth in criminal justice expenditures during 1980–85 is expected to decrease to 3.5 percent per year, despite the projected growth in total state and local expenditures of 4.8 percent during this period. The effect of these increased expenditures upon employment in law enforcement agencies is likely to be dampened, however, because it is realistic to assume that a significant portion of these increases will be absorbed by higher salaries for law enforcement personnel.

C. Conclusions

The point of departure for our assessment of the employment outlook in law enforcement occupations has been a specific set of assumptions concerning future social and economic trends which will affect the demand for law enforcement services. These projections distinguish between the near-term outlook to 1980 and the longer-term outlook for the period 1980–85. Moderate continued growth in law enforcement employment is anticipated during both of these periods, although at a substantially slower rate than in recent years. The factors influencing this growth and their implications for crime control are, however, somewhat different:

- During the period to 1980, we anticipate that continued fiscal stringencies in many state and local governments will dampen the rate of growth of law enforcement employment, particularly in some of our larger cities. The growth in crime rates is also expected to slow appreciably, mainly as a result of the stabilization in the proportion of teenage youth and younger adults in the population—the age group with the highest crime propensity. Nevertheless, this will be a period of continued manpower "ceilings" for many police departments, particularly in our larger cities, which will be under strong pressure to improve the utilization of existing personnel resources in dealing with crime-related problems.

- During the period 1980–85, our projections assume that despite an anticipated downturn in crime rates, a more rapidly growing economy and expanding state and local revenues will make possible a further increase in expenditures and employment for law enforcement activities. A combination of increased resources and of reduced crime rates—resulting in large part from favorable demographic and economic trends—in turn should make it possible to improve the quantity and scope of law enforcement services and to reduce some of the existing problems of agency understaffing reported in the surveys of law enforcement executives.

Employment growth rates are expected to vary significantly among different categories of law enforcement agencies and occupations. More rapid growth is expected among state and county agencies than among city police departments. In the case of city and other local police departments, growth will

be more rapid for the medium-sized agencies, including those in suburban communities and smaller cities, than either among the very large municipal departments or the very small agencies. The continued infusion of more sophisticated technology and more advanced methods of communication, crime analysis, and administration will increase the requirement for personnel in support-type functions—primarily civilians—as compared with sworn officers in line activities.

Personnel needs for law enforcement will also be affected by a large number of more specific trends affecting police workloads, organization, and staffing. Several of these trends were selected for examination, in terms of their manpower implications: the trend towards decriminalization of certain victimless offenses, team policing, civilianization, and the issue of consolidation of very small police departments. These were among the numerous proposals in several major studies during the past decade for improving the effectiveness and efficiency of law enforcement agencies.

Some of these policies, such as decriminalization or reduced arrest activity for certain offenses and increased use of civilians, have been under way for a number of years and are expected to continue. Moderate progress has also been made in introducing the team policing concept in a number of police departments, and some additional movement in this direction is expected. The outlook for consolidation of very small police departments is less clear, although the need for such actions—from a personnel standpoint—is documented by the surveys. On balance, however, the NMS analysis does not indicate that any of these trends are likely to accelerate in the near future to a degree that would cause a substantial change in the level or distribution of employment in law enforcement agencies, as compared with that described in our basic projections.

NOTES AND REFERENCES

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CHAPTER IV. RECRUITMENT AND RETENTION OF POLICE OFFICERS

A. Introduction

In assessing recent and prospective police employment trends, the preceding chapters have noted the role of budgetary constraints upon the levels of police employment. However, police agencies can have difficulty in meeting even their budgeted or authorized staffing levels, if they cannot attract and retain a sufficient number of qualified personnel. Recruiting difficulties were, in fact, highlighted in earlier reviews of police manpower problems, conducted during the past decade. Thus, a 1965 survey of 284 police departments, conducted by the National League of Cities, found that nearly two-thirds were below authorized strengths.[1] Jerry Wilson, former Police Commissioner of Washington, D.C., notes that during the last half of the 1960's many urban police departments "were having such great difficulty in obtaining recruits that suggestions were made not only that police officers be universally exempted from the draft, but that police service be formally established as an alternative to military service." Wilson did however cite a reversal of the situation about 1970, "when a growing intolerance for crime by the general population and of clear and unequivocal support for the police by national and local politicians revived the attractiveness of police work as an occupation."[2]

The recruitment needs of an agency are determined not only by any change in its total authorized personnel but by its rate of personnel turnover, i.e., the number of personnel who must be recruited to replace losses due to resignations, retirements, or other causes. Personnel turnover rates among police officers appear to have been relatively low during the past two decades—at least in the larger police departments.

Nevertheless, police officials have often expressed concern about turnover among their more junior police officers, in view of the substantial costs of recruitment and training involved and because of its effects upon the overall experience level of their force. In addition, high personnel turnover can be a symptom of poor personnel morale—whether due to inadequate compensation, poor working conditions, or other causes.

For these reasons, the National Manpower Survey included a number of questions relevant to personnel recruitment and turnover problems of law enforcement agencies. These included both attitudinal questions designed to obtain executive assessments of how serious these problems were for their agencies, and reports on the actual number of officers recruited and separated in a recent year.

B. Summary of Findings

Any assessment of the recruitment and personnel turnover experience of law enforcement agencies, and of related personnel management issues, must recognize the very great diversity in size and structure of the 19,000 state and local police and sheriffs' agencies throughout the country. At one extreme are the large metropolitan and state police departments, employing many hundreds or thousands of employees. These provide prototypes of highly structured career services, whose personnel policies are regulated by civil service rules often supplemented by collective bargaining agreements and by longstanding institutional practices. With limited exceptions, young men and women enter these forces at the bottom rung of the police career ladder, as cadets or recruits. Promotion to higher ranks is from within the organization, with few opportunities for lateral entry of "outsiders" other than at the Private level. Once officers complete their probationary period, voluntary resignation rates are very low; a large proportion continue with their agency until they become eligible for pensions.

At the other extreme are the many thousands of small police and sheriffs' agencies in our smaller communities and rural areas. These agencies—particularly in the case of the small sheriffs' offices—typically are much less likely to be governed by institutionalized personnel policies or practices.

Training and promotional opportunities are more limited; salaries much lower, and significant percentages of officers in the smallest of these agencies are on a part-time basis. Personnel turnover rates in these small agencies were therefore found to be much higher than in large or medium-sized agencies, with adverse implications for experience-level and performance. These agencies had also experienced much more difficulty in recruiting an adequate supply of applicants for officer positions, prior to the recent economic recession.

Looking ahead, the prospect for the coming 10-year period is for a generally increased supply of applicants for police positions, in relation to the available openings. The police recruitment "pool" will grow until about 1980, as a result of continued moderate growth in the population of young adults (e.g., ages 21–24 years) and of higher average unemployment rates. At the same time, annual recruitment needs are expected to be about 18 percent lower than in FY 1974, as a result of lower turnover and slower employment growth. The outlook is for a somewhat more restricted supply during the period 1980–85 mainly as a result of a projected increase in police replacement needs. But the ratio of qualified applicants to openings will still be more favorable than that in 1974.

A special focus of concern in recruitment policy, for many agencies, has been an effort to increase minority group representation in their police forces—particularly in jurisdictions with substantial minority populations. The available data, through 1974, indicate that despite some gradual increase, from 3.6 percent in 1960 to 6.5 percent in 1975 for blacks, the proportions of blacks and Spanish-Americans in police officer positions were still much below their corresponding population ratios in almost all states—particularly, in the South. State police departments, reported the smallest minority representation as compared to city or county agencies. Moreover, minority officers as well as minority nonsworn employees were found to be highly concentrated in the lower-level positions of their respective job ladders. The outlook we have projected—assuming a continuation of 1974 personnel turnover experience—is for a gradual further growth in the percentage of minority group members among police personnel. However, the proportion for minority group employees will still remain substantially below "population parity" by 1985.

Our assessment of employment of women in police officer positions confirms earlier findings on the very limited utilization of women in line police officer positions. Their overall share of all police officer positions was found to be about three percent. However, even this small number of women officers was found to be disproportionately assigned to "women type" duties, rather than in line patrol or investigative functions. The projection of future employment trends, based on 1974 turnover experience, suggests only a limited growth in the ratio of women among police officers, to about 3.5 percent by 1985—in the absence of any major changes in police agency recruitment and utilization practices.

NOTES AND REFERENCES

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2. Jerry Wilson, *Police Report: A View of Law Enforcement*, Little, Brown and Company (Boston: 1975), p. 167.

CHAPTER V. EDUCATION FOR LAW ENFORCEMENT OCCUPATIONS

A. Introduction

As with many other issues in law enforcement, college education for police can be traced to Sir Robert Peel, the first commissioner of the Metropolitan Police Department of London. Peel proposed that police officers should be recruited from the lower class and from noncommissioned army officers. He argued that, since the police function is so crucial to society, there should not be any suggestion of the upper classes lording over the lower classes.[1] Since the lower class was universely lacking in college education in London in 1849, the world's first municipal police department excluded college-educated personnel by definition. Although Peel succeeded in freeing the police department from overt upper-class dominance, he also established policing as a lower-class occupation and, by implication, an occupation that does not require higher education.

Several conclusions can reasonably be drawn from this. If Peel had not established the principle of control of policing by the lower class, a dual-entry system paralleling that of the army might well have been instituted. Moreover, the circumstances that led to Peel's decision were very different from those of today. For the same reason that Peel pressed for lower-class control of the police—to assure even-handed justice—many of today's reformers are arguing that college education is necessary. They contend that the job has grown in sophistication and complexity and, therefore, requires more highly educated personnel.

Neither among researchers nor among police chiefs is there agreement as to the effect of education on performance. A substantial minority of chiefs (40 percent) feel that college-educated personnel are superior to noncollege personnel overall. But a plurality (46 percent) of chiefs either judge that there is no substantial difference between the two groups or don't know whether there is a difference. The remaining 13 percent feel that officers without college educations are superior. That the age and education level of the chief is highly related to his or her appraisal of college and noncollege personnel suggests that personal experience is more influential than objective observation in determining the respondents' opinions. The differences in the ratings by performance dimensions and by size of agency are in the predictable directions. College personnel do best on dimensions associated with academic ability and with the peace-keeping functions. They are least differentiated from noncollege personnel in dimensions that distinguish acceptable from unacceptable performance. Chiefs in large agencies are most likely to rate college personnel as superior to noncollege personnel.

There are two major arguments in favor of higher education. The first is that there are aspects of the police occupations under consideration that require high levels of sophistication for which college training may be highly relevant. The second is that college-educated personnel perform better.

With respect to the patrol officer's job, the NMS job analysis indicates that there is no task that is typically performed at this level for which college work is either "required" or "highly desirable." In one respect this result is to be expected, since 70 percent of all sworn incumbents have less than two years of college education. At least with respect to present standards, it is clear that college education is not "required." The observers quoted concerning the complexity of the police job are reporting their perceptions of what is, *de facto*, entailed in the job rather than what the administration of a department may require or emphasize.

The second justification for promoting higher education is based on the hypothesis that the performance of college personnel is superior to that of other personnel. College-educated personnel are hypothesized to possess to a considerable extent qualities that are relevant to performance, such as the internalization of relevant values, self-motivation, and understanding of and concern for civil liberties and cultural differences.

It must be concluded that evidence that absolutely demonstrates that college graduates perform better

does not now exist. Of the several studies reviewed, about half identify some difference in the performance of the two groups in the expected direction. The other half report no differences in performance between the two groups.

That the correlation between education and performance has not been conclusively demonstrated may imply that a relationship does not exist. Several aspects of studies to date, however, render their findings inconclusive. The studies do not distinguish among the durations or qualities of the college experiences. There are considerable difficulties associated with the measuring of performance dimensions. This is especially true of the dimensions alleged to be associated with higher education.

The police chiefs surveyed are also divided on the question of whether the performance of college personnel is better than that of noncollege personnel. Only 40 percent of the chiefs surveyed feel that college personnel are better performers "overall." Higher percentages rated college personnel as superior with respect to "handling paperwork," "achieving promotions," "dealing with juveniles," and "dealing with citizens."

Despite the absence of conclusive evidence of the effect of education on performance, it is nonetheless reasonable for departments to pursue the policy of encouraging higher education among their personnel. The percentage of high school graduates who wish to continue their education is increasing. If police departments recruit at the high school level they will be choosing from a smaller pool of candidates each year. It is also argued that this pool is becoming less qualified each year. With the general availability of publicly supported education, the decision to attend college becomes one that is more often based on ability and motivation. Also, the more college-educated line personnel there are in a department, the larger the pool of college-educated personnel from which to choose investigators, supervisors, and managers.

It does not follow, however, that college education should be established as an entrance requirement in all police departments. It is probable that such a standard would have the effect of cutting down on the percentage of members of minority groups who would be eligible for police work. Unless it can be shown that such an effect can be dealt with, other methods of increasing the percentage of college-educated personnel, such as special recruitment or the encouragement of in-service education, should be pursued.

Relatively little information exists with which to evaluate the need for higher education among detectives, supervisors, and managers. The results of a job analysis indicate that there are at least some tasks for which college courses are either needed or highly desirable. This is especially pronounced in the case of mid- and top-level managers. Fourteen of the 32 tasks performed by administrators are rated as requiring some college background.

B. Assessment of Current Levels of Educational Attainment

The levels of educational attainment of law enforcement personnel vary considerably by region of the country. The two Western regions have considerably higher levels of education than do the regions in the rest of the country. That the East South Central region, which is relatively rural, has the lowest overall aggregate educational attainment suggests that rural areas are less likely to attract college educated personnel. But the Mountain region, which ranked second in all measures of educational attainment, is also rural. The Mid-Atlantic states (New York, New Jersey, and Connecticut), which are among the most urbanized in the country, ranked relatively low.

Some evidence suggests that state policies are influential in affecting the education levels of incumbents. States with relatively high percentages of students enrolled in public schools have high percentages of law enforcement officers with college training.

C. Comparison of Current Educational Attainment With Desired Standards

The discussion of the relevance of education to police occupations, earlier in this chapter, was necessarily inconclusive. National commissions, police professional organizations, and other advocates of change and improvement in law enforcement have been eloquent advocates of higher education for police. They have argued that the job is so complex and sensitive that the best possible people should be hired, and the skills, knowledge, and personal qualities associated with higher education make college-educated individuals better qualified than others to do the job. Unfortunately, none of the evaluative research completed to date has succeeded in conclusively demonstrating that more highly educated offi-

cers perform more effectively. Although the National Manpower Survey has adduced considerable evidence of support among police chiefs and sheriffs for measures to increase the education levels of personnel in their departments, there is by no means a consensus among them that sworn personnel need college educations or even that college-educated officers perform more effectively than those with no college.

Advocates of higher education go on to argue that the encouragement of higher education among police incumbents is supportable not only on the grounds that it makes for better patrolmen in departments as they are presently constituted, but also that college education is a prerequisite for service in agencies that intend in the future to depend more highly on the integrity, ability, and motivations of the individual rather than on paramilitary discipline to accomplish agency goals.

The purpose of this section is to compare the educational attainment of incumbents with standards that have been proposed as necessary for the improvement and development of police service. None of the standards proposed here has been proven by use of criterion-related validation research to be necessary for adequate performance in all departments across the country.[2] They should be considered as suggestive rather than absolute and as susceptible to modification in the light of such competing claims as equal opportunity employment or the need to expend limited funds for other goals.

The first two standards to be considered concern the education level of line personnel. The first standard, which represents the practice of the 33 states that impose selection standards on sworn personnel hired within the state, is that all new hires should have at least a high school diploma at the time of entry. The second standard, which goes somewhat beyond the first, is that recruits should have completed at least one year of college. This standard has been propounded by the two national advisory commissions and is supported by the arguments in favor of increased levels of higher education that are detailed in Section A of this chapter.

The remaining two standards concern the educational attainment of personnel above the line patrol level. The third standard, which was propounded by the President's Commission on Law Enforcement and the Administration of Justice, is that personnel above the line patrol officer should have higher levels of educational attainment than patrol officers. The fourth concerns the educational level of chief executives. The Police Chief Executive Report proposed that new chief executives of small departments (fewer than 75 employees) should have at least an associate degree, and executives of large departments (75 or more employees) should be graduates of four-year colleges.

1. *The high school diploma as the minimum education level at entry.* That recruits should have at least completed high school at entry is a standard that is nearly universally accepted. As of January 1971, all of the 33 states with standards and training commissions that had established any selection standards at all had specified that new recruits should possess at least a high school diploma.[3]

It has been suggested that the standards appropriate to large agencies are not necessary for small agencies, since policing in most small and rural jurisdictions is more routine and less complex than it is in urban areas.[4] But it has also been argued that, since small agencies are less specialized, every officer has to be able to perform virtually all police functions (including felony investigations). In their task analysis of the line patrol function in nine departments, Rosenfeld and Thornton found that, although the percentage of time spent on various tasks varies by size of jurisdiction, virtually the same tasks are performed by incumbents in all the jurisdictions covered.[5]

Future research, such as that encouraged by the regulations of the Equal Employment Opportunity Coordinating Council, may provide the information required to evaluate the educational needs of different departments. But in lieu of substantial evidence, it is reasonable to conclude that the high school standard that states have established applies equally to small and large agencies.

Most agencies have an entrance requirement of a high school diploma or higher. Eighty-seven percent of all police and 84 percent of all sheriff's agencies have such a requirement. (See Table V–1.) Weighting to compensate for the fact that a disproportionately high number of small agencies are included in the sample in relation to their overall employment, more than 92 percent of all sworn law enforcement personnel are in agencies with an entrance requirement of high school or above.

Large agencies are considerably more likely than small agencies to have at least a high school diploma entrance requirement. Only 3 percent of all agencies with 400 or more employees do not require high school graduation, while 14 percent of agencies with fewer than 150 employees do not have a high school diploma entrance standard (Table V–1.). It may, therefore, be surmised that most incumbents who

TABLE V–1

Current Minimum Education Level for Sworn Law Enforcement Personnel at Entry, by Size and Type of Agency, 1975

Minimum Educational Level	Police Agencies				Sheriff's Agencies			
	All Police Agencies (n=2639)	Fewer Than 150 Employees (n=2392)	150–399 Employees (n=150)	400 or More Employees (n=97)	All Sheriffs Agencies (n=550)	Fewer Than 150 Employees (n=487)	150–399 Employees (n=41)	400 or More Employees (n=22)
All responses	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
No minimum requirements	11.2	12.2	1.3	1.0	13.1	14.4	2.4	4.5
Less than high school diploma	2.1	2.0	3.9	2.1	2.7	2.5	4.9	4.5
High school diploma	81.3	80.9	82.0	88.7	81.8	81.5	82.9	86.4
One year of college	1.9	1.9	2.0	1.0	1.1	0.6	4.0	4.5
Two or three years of college	3.3	2.9	10.0	7.2	0.9	1.0	–0–	–0–
Bachelor's degree	0.3	0.2	0.7	–0–	0.4	–0–	4.9	–0–

Note: Detail may not add to totals due to rounding.

Source: NMS Executive Surveys, 1975.

have entered police work recently without having graduated from high school are associated with small agencies.

Despite the outstanding growth in the overall levels of educational attainment, the growth in the percentage of police officers with at least a high school diploma is decreasing. Almost 90 percent of all current employees have at least a high school diploma. It is also the case, as Table V–2 shows, that the more tenure an officer has, the less likely he or she is to have graduated from high school. It is therefore, surprising to note that among new hires during the most recent period the Census survey data indicate that fully 9 percent had not graduated from high school at the time they were hired. It appears that persons who are not high school graduates have been hired recently at a relatively high rate.

Overall, agencies having an entrance requirement of a high school diploma or higher account for 92 percent of all sworn personnel. But small agencies are considerably less likely to have a high school diploma entrance requirement than are large agencies. Furthermore, it appears that these small agencies are hiring non-high school graduate applicants at a high rate.

TABLE V–2

Percentage of Sworn Law Enforcement Officers With Less Than a High School Diploma in 1974 by Year of Entry

Period of Entry	Percentage of Sworn Personnel With Less Than A High School Diploma
All incumbents	10.6
1970–1974	7.8
1965–1969	8.4
1960–1964	10.4
1959 and earlier	19.3

Source: U.S. Bureau of the Census, Criminal Justice Employee Characteristics Survey (1974).

2. *Some college attainment as an entry-level standard for sworn personnel.* Both the President's Commission on Law Enforcement and the Administration of Justice and the National Advisory Commission on Criminal Justice Standards and Goals (the Peterson Commission) have recommended that college work be a selection standard for new recruits. The President's Commission, which published its report in 1967, suggested a gradual approach: all departments should immediately establish the standard that the applicant be a high school graduate who has demonstrated an ability to do college work, and as soon as possible, the entry standard should be two years of college for the patrol officer.[6]

The Peterson Commission Report, published in 1973, recommended an even higher level of educational attainment and suggested an explicit time schedule. It said that all agencies should immediately require the completion of one year of college for all new entrants, and by 1975, two years of higher education should be required for all entrants, three years by 1978, and a bachelor's degree by 1982.[7] For purposes of this discussion, the entrance standard proposed by the Peterson Commission is considered to be "at least one year of college at entry" since that is the standard the Commission proposed for 1974, the most recent year for which the Census Survey has information on the education level of personnel at entry.

Overall, a very small percentage of agencies have entry-level education standards above the high school level. Only 5 percent of all police agencies

surveyed and 2 percent of all sheriff's agencies have such a standard. (Table V–1.) There is reason to believe that there has been little, if any, increase since 1972 in the percentage of agencies requiring that educational attainment at entry be above the high school level.[8]

The lack of an appreciable trend toward the adoption of higher education standards by law enforcement agencies may be, in part, explained by structural rigidities that make it difficult to increase the education standards. For example, in jurisdictions in which civil service commissions establish entrance requirements, the chief executive is powerless to say what the education standard will be. A recent survey by the International Association of Chiefs of Police indicates that 81 percent of all police agencies are under civil service restrictions.[9] Another factor that may disuade agencies from increasing educational standards at entry is the fear that college-level standards might eliminate a disproportionate number of otherwise qualified black applicants.

Despite the fact that there is little movement toward higher education standards, a sizable minority of the chief executives of large agencies supports an entrance requirement higher than a high school diploma. Forty-one percent of police chiefs in agencies serving jurisdictions of 17,000 or more and 31 percent of sheriffs in departments with more than 10 employees favor requiring some college for entrance. Moreover, 20 percent of the police chiefs and 25 percent of the sheriffs anticipate the minimum education standard in their agencies will rise within the next two years. Given the trend in the last two years, it is very unlikely that such a large percentage of agencies will actually raise their educational entrance requirements, but the fact that incumbent chief executives are contemplating such a change indicates a fair level of support.

Although less than 7 percent of all law enforcement agencies have a higher-education entrance requirement, an increasing percentage of officers hired within the last several years had completed at least one year of college at entry. Of entrants between 1970 and 1974 covered in the Census Survey, 39 percent had completed at least one year of college at entry. Only 22 percent of entrants in the 1965–69 period had completed some college work at entry.

The rate of growth in the educational attainment of law enforcement personnel over the last five years is striking. The percentage of new hires with college degrees, along with the combined effects of high levels of in-service educational upgrading and the attrition of personnel with relatively low levels of education, is causing the impressive growth rate. Although relatively few departments have a higher-education entrance requirement, it may be concluded that the spirit, if not the letter, of the Peterson Commission's recommendation is being met with increasing frequency around the country.

3. *Higher education requirements for management and supervisory personnel.* The President's Commission concludes that managers and supervisors have more pressing needs for higher education than do line personnel. This conclusion rests on the proposition that their supervisory, managerial, and planning roles are more complex than those undertaken at the line level, and service as a patrolman does not adequately prepare one to be a supervisor or manager. The Commission argues that these roles require a college education by analogy to similar positions in other fields.

> The operation and management of a large police force is as complex as administering a business of comparable resources and requires comparable skills. With few exceptions, the completion of four years at a college or university is a minimum requirement for top administrative and staff positions in other branches of government. No less should be demanded of administrative and supervisory personnel in our Police department.[10]

The task analysis study undertaken by the NMS also concludes that there are several tasks performed by supervisors and managers (including supervising and procedural planning) for which college education is either necessary or highly desirable. By contrast, the task analysis does not identify any line patrol task that requires a college education for successful completion.[11] Furthermore, a larger percentage of police chief executives surveyed by this project felt that there should be a college requirement for line supervisors (53 percent) than felt the need for a college requirement for line personnel (40 percent).

Although the President's Commission recommended that a baccalaureate be the eventual standard for supervisors and managers, it recognized that the educational attainment of these personnel would have to be increased gradually. For the purpose of evaluating the current status of progress towards the Commission's goal, this discussion concentrates on the recommendation that the educational attainment of supervisors and managers should be higher than the attainment of line personnel.

Although larger proportions of supervisors than of line patrolmen have attended and graduated from college, the same is not true of managers. Almost 60 percent of all supervisors have completed at least one year of college, and 10 percent have graduated with baccalaureate degrees. The proportions for line patrol officers are 47 and 7 percent, respectively. A larger proportion of managers have completed college (11 percent) than have patrolmen, but fewer managers have attended college (42 to 47 percent). It should be noted that neither group is anywhere near the eventual goal of 100 percent four-year college graduates.

There are several probable reasons for the relatively low levels of educational attainment for managers. Managers have somewhat longer lengths of service than do supervisors and, as a group, entered police work with relatively lower education levels. Moreover, managers are disproportionately represented in smaller agencies, so it is likely that they reflect the lower education levels characteristic of smaller agencies.

Since the National Manpower Survey job analysis suggests that higher education is especially relevant to the mid-level manager, it is unfortunate that such relatively smaller percentages of managers have attended and graduated from college. The situation is particularly acute since the officers below them are on average better educated than they are, and since managers constitute the group from which future police chiefs have historically been chosen.

4. *College degree requirements for chief executives.* The Police Chief Executive Committee recommended that a baccalaureate requirement should be immediately established for future police chiefs in agencies with 75 or more employees and that the completion of two years of college should be the minimum standard for smaller agencies.[12] By 1982, four years of higher education should be the minimum standard for all agencies. Except for the separate provision for small agencies, this standard mirrors the recommendation of the 1967 President's Commission concerning police chiefs.[13]

As could be expected, the educational attainment of incumbent police chiefs and sheriffs is somewhat lower on average than the Police Chief Executive Report recommends. Only 34 percent of all chiefs of agencies with 75 or more employees have at least a bachelor's degree. This percentage varies somewhat by the size of the agency. Forty-three percent of executives in agencies with 400 or more employees have graduated from a four-year college, while only 30 percent of the chiefs of smaller agencies (75 to 399) are college graduates. Among agencies with fewer than 75 employees, 39 percent of the chiefs have completed two years of college, and only 13 percent are college graduates.

Police chiefs as an occupational group are on the low end of the educational generation gap that is discussed above with relation to managers. They entered police work an average of 22 years ago and, therefore, entered with others whose educational attainment at entry was considerably lower than the attainment at entry of recent hires.

There are, nonetheless, several encouraging signs that the education level of chief executives can be expected to increase considerably in the near future. The educational level of new entrants has been increasing steadily over the last 14 years. Therefore, as time passes, the education levels of those with sufficient tenure to be considered for chief will increase. Also, chiefs as a group have education levels that are higher than other managers. Since chiefs also have longer tenure on average than managers as a whole, it can be hypothesized that personnel with relatively high levels of educational attainment are promoted to chief in higher numbers than other managers. Since a large majority (76 percent) of the supervisors of chiefs agree that college education should be a prerequisite for appointment to chief, [14] it can be assumed that the tendency to select college-educated chiefs will continue and possibly increase in the near future.

D. Projections of Educational Attainment in 1980 and 1985

The past decade and a half has seen a rapid upgrading of the educational attainment of the nation's sworn law enforcement officers. In 1960, nearly 4 out of every 10 officers had not completed high school, and only 2 out of 10 had completed at least one year of college. By 1974, only 1 in 10 officers had not completed high school, and nearly half (46 percent) of all the officers in the country had completed a year or more of college studies. This change in the education levels of sworn law enforcement officers is characterized earlier in this chapter as *de facto* progress toward realization of the goal of educational upgrading so consistently articulated over the past decade by national commissions and others who have considered the question. Although requirements for higher education as a condition of entry into sworn status have been implemented by no states and few individual agencies, the increase in college attainment has nevertheless proceeded with

extraordinary rapidity. The issue addressed in this section is the outlook for further upgrading if the trends of the past decade or so continue.

Table V–3 presents the key results of the NMS projections of the educational attainment of sworn law enforcement officers in 1980 and 1985, together with the actual situation in 1974. The most striking finding is that, by 1985, better than three out of every four sworn officers nationwide can be expected to have completed at least one year of college. Nearly 2 out of every 10 officers should be college graduates, and fewer than 5 percent should be high school dropouts.

Although the available data do not permit disaggregation of these projections by area of the country or agency type or size, if anything like the patterns that existed in 1974 persist, it seems reasonable to suppose that in the larger agencies in urban areas virtually every officer in 1985 will have completed a year or more of college.

A brief description of the projection method used to develop the above results follows:

The basic information available for the projections is the educational attainment of sworn officers in 1974 and at the time they entered law enforcement agencies. This information, from the U.S. Bureau of the Census Special 1974 Survey of the Characteristics of Employees of the Criminal Justice System, is also available by the year each officer entered the field. The data reveal a significant trend toward higher levels of educational attainment at entry as well as greater in-service upgrading for more recent entrants. The projection method is designed to take these trends into account by developing separate projections for each of the following groups or cohorts of sworn officers who entered service in or before 1974: those who entered in 1970–74, 1965–69,1960–64, and prior to 1960. In addition, those who will enter service between 1975 and 1985 are divided into two cohorts: 1975–80 and 1981–85.

The projections of educational attainment for those who entered service during 1974 or before are derived from two types of information. The first is a set of estimates of the rates at which officers are likely to leave service in the years 1975–80 and 1981–85. These rates are estimated separately for each cohort, depending on the average age of each in 1974 and 1980 (assuming each officer in each cohort was 22 years old at entry), based on independently projected attrition rates. These estimates provide a basis for projecting the number of officers in each cohort who will still be in service in 1980 and 1985.

The second type of information required for projection of the educational attainment of each cohort is the distribution of attainment for each cohort in 1980 and 1985. These distributions are derived by separate projections of the rates of in-service educational gains likely to be realized by each cohort on the basis of the rates of in-service gains actually experienced by preceding cohorts prior to 1974. For example, the 1970–74 cohort is projected to realize in-service gains during the period 1975–80 at the same annual rates as were experienced by the 1965–69 cohort during the years 1967–74. The 1970–74 cohort's further gains during the period 1981–85 are then projected at the annual rates achieved by the 1960–64 cohort during the years 1962–74. As the average rates of gain realized by each cohort between entry and 1974 decline with the age of the cohort in 1974, this projection method provides for a tapering-off of rates of in-service upgrading during the 1975–85 projection period.

Given the number of officers in each cohort remaining in service in 1980 and 1985, the projected distributions of educational attainment in each of

TABLE V–3

Educational Attainment of All Sworn Law Enforcement Personnel in 1974 and Projections to 1980 and 1985

Years of Education Completed	1974		1980		1985	
	Number	Percent	Number	Percent	Number	Percent
Total	**498,857**	**100.0**	**597,000**	**100.0**	**637,000**	**100.0**
8 or less	13,794	2.8	13,566	2.3	11,793	1.8
9–11	38,845	7.8	28,370	4.7	17,015	2.7
12	214,777	43.0	177,031	29.7	129,274	20.3
13–15	187,701	37.6	293,697	49.2	360,376	56.6
16 or more	43,740	8.8	84,336	14.1	118,442	18.6
Subtotal: One year or more of college	231,441	46.4	378,033	63.3	478,818	75.2

Sources: U.S. Bureau of the Census, Criminal Justice Employee Characteristics Survey (1974); U.S. Bureau of the Census, Current Population Survey.

those years are used to calculate the number of officers in each cohort at each level of attainment.

Given independent projections by the NMS manpower group of the total number of sworn law enforcement officers in 1980, and the total number-of officers in service in 1974 who are likely still to be in service in 1980, the number of officers in the 1975–80 entering cohort is, by definition, the difference between the two projections.

The distribution of educational attainment for the 1975–80 cohort in 1980 is derived from two sets of estimates. The first of these is a projection of the distribution of the attainment of the cohort at entry (assumed for purposes of the calculations to be in mid-1977). This projection is based upon an independent projection of the educational attainment of the male civilian labor force between the ages of 20 and 24 and the recent historical relationship between the rate of growth in the educational attainment of that segment of the labor force and the gains in attainment experienced by entering sworn officers. The rates of in-service gains in educational attainment are then projected for the cohort to be the same as those realized by the 1970–74 cohort during the years 1972–74. These procedures permit calculation of the distribution of educational attainment for the 1975–80 cohort in 1980. The projections for this cohort's in-service gains to 1985 are then calculated by methods analogous to those used for the cohorts that were in service in 1974.

Given, again, projections of total sworn officers in 1985 and the number of "survivors" in that year from earlier cohorts, the number of officers in the 1981–85 entering cohort still in service in 1985 is given. The distribution of the educational attainment of the cohort in 1985 is calculated by methods analogous to those used for the 1975–80 cohort.

Finally, the distributions of educational attainment for all the cohorts in 1980 and 1985 are summed and the resulting distributions for all officers in those years that appear in Table V–3 are calculated.

E. Conclusions and Recommendations

Traditionally, advocates of "professionalizing" police work have emphasized the need for educated and highly trained administrators. Although higher education has been perceived as useful for the line personnel, its primary value has been felt to be its ability to qualify its possessors for promotion to administrative responsibilities.

In the last 15 years, however, the concept of police "professionalizing" has been expanded to include the line patrolman. Today, considerably more emphasis is placed upon encouraging higher education for police officers than in the past. One reason for this was the political and social strife of the sixties, which caused an examination of the role of police in society that focused primarily on the role of the line patrol officer, and on the little-understood fact of the officer's true power and discretion.

The considerable body of prescriptive literature concerning the value of higher education for police occupations contends that college-educated personnel offer several advantages:

- improved writing, reporting, and analytical skills
- less authoritarian bearing, which is related to better use of discretion and more comfortable relationships with juveniles and other citizens;
- an understanding of racial and cultural patterns and tolerance for cultural differences; and
- improved skills relating to leadership and planning.

These contentions are hard to prove since they relate to qualities that are difficult to measure objectively in the context of police performance.

This chapter considers several measures of the relationship between higher education and performance. The results of the NMS job analysis, of the NMS survey of police chief executives, and of other empirical research are reviewed. Some evidence suggests that education is related to performance in each of the dimensions cited above, other results indicate that no significant relationship exists. In neither case are the data conclusive. In the case of occupations above that of the line patrol officer, the NMS job analysis suggests that a college background is relevant to some tasks. But the results actually prove little.

Regardless of the state of evidence on the need for and effectiveness of higher education, there has been a remarkable rate of growth in the educational attainment of sworn personnel. The proportion of sworn personnel with some college education soared from 20 percent in 1960 to 32 percent in 1970 and to 46 percent in 1974. The proportion of four-year college graduates among sworn personnel more than doubled between 1970 and 1974: from 4 percent in 1970 to 9 percent in 1974. The 14.4 percent increase in sworn personnel with some college during the same four years was more than twice the increase in the proportion of males in the labor force with some college (6.7 percent).

The NMS projections indicate that this trend will continue. By 1985, three out of four of all sworn

personnel are likely to have attained one or more years of college, and 19 percent are expected to be graduates of four-year colleges.

Several factors have encouraged the growth in the educational attainment of sworn personnel. There has been a general expansion of publicly supported higher education. The burgeoning of the community college system has made education more accessible. Community colleges, funding for vocational education, and LEAA grants-in-aid have made possible the development of criminal justice education programs. The Law Enforcement Education Program (LEEP) and higher education and incentive programs run by individual agencies have encouraged in-service personnel to pursue college education.

There is no way of knowing for sure to what extent external factors, such as the growth of public higher education, have encouraged the increase in college education among sworn personnel and to what extent the trend has been encouraged by the actions of police departments themselves. However, it is clear from the NMS Executive Surveys that a considerable number of police administrators are actively encouraging higher education for sworn personnel. Ninety-four percent of all responding police chiefs of agencies in jurisdictions of 17,000 or more people believe that departments should encourage continuing higher education, and 40 percent say that the minimum standard of education for entry should be one or more years of college. Large percentages of these agencies pursue active policies (adjusting work schedules, 68 percent; departmental subsidies for books and tuitions, 47 percent; and increased pay or accumulated college credits, 46 percent) designed to encourage continuing higher education. According to 50 percent of the executives, college-educated personnel are promoted more often than are high school graduates.

That administrative support for higher education will continue and grow seems virtually certain. The NMS surveys show that younger administrators and those with higher education are more likely than their older and less educated colleagues to believe that college graduates make better officers. Since the number of personnel with college backgrounds is growing, and since college-educated officers are more likely to be promoted, more and more administrators can be expected to support higher education in the future.

These findings of the National Manpower Survey have several implications for public policy. First, elaborate and expensive policies designed to accelerate the rate of growth in the number of college-educated line personnel will be hard to justify, assuming the continuation of current selection practices and of the Law Enforcement Education Program. Second, education for mid-level managers should be assigned a higher priority than it appears to have at present. Third, the change in the composition of line personnel to include a large percentage of college-educated officers potentially affords administrators with a golden opportunity to adjust the structure of the job in ways that will increase the effectiveness of line patrol. Indeed, major adjustments are likely to be essential if the morale of a more highly educated force is to be sustained.

Policy changes such as increases in the education standard at entry or increased financial incentives for continued educational upgrading do not appear to be needed. The combined effects of new hires with high levels of education, educational upgrading of in-service personnel, and the retirement of personnel with relatively low educational attainment should be sufficient to effect the educational upgrading of sworn personnel in most agencies.

A strong case can be made for stressing higher education for mid-level managers and for chief executives. The NMS job analysis indicates that the tasks associated with these occupations are the most demanding and are those for which college education is widely believed to be either required or highly desirable. And, traditionally, this occupation has been manned by personnel with educational attainment that is on average superior to that of their line and supervisory subordinates.

Several complementary methods could be used to increase the educational attainment of managers. A certain percentage of LEEP funds could be earmarked for lieutenants, captains, and other managers. Management training programs, which often offer college credit, can be expanded. Departments could require higher education for promotion to managerial positions. In departments where such requirements would have discriminatory effects on minority personnel, arrangements could be made to send well-qualified minority officers to management training programs.

If college-educated police have certain qualities that are relevant to police work, then it follows that, with the expanded number of college graduates, police administrators can restructure their organizations to take advantage of these abilities. Examples include using such strategies as team policing and pro-active patrol that require the line patrolman to do more investigative work and to interact more with members of the community than is traditional. The

civilianization of routine tasks, such as controlling traffic and issuing parking tickets, can also contribute to making the patrol officer's job more sophisticated by limiting the job to the more demanding tasks of crime control and order maintenance.

Despite the overall increase in the educational attainment of sworn officers, many agencies—typically those that are very small and are in states with large rural populations—are unable to compete for the more educationally qualified personnel. Nine percent of the sworn personnel who entered police work between 1970 and 1974 did not have a high school degree at entry. This figure is high considering that fewer than 11 percent of *all* incumbents in 1974 had not completed high school. This available information suggests that these officers are concentrated in the smallest departments in states with the most rural populations. Twenty-one percent of the agencies serving jurisdictions with populations under 17,000, but only 4 percent of larger agencies, fail to require a high school diploma for entry. Two percent of the smaller agencies have entry-level standards of one or more years of college at entry.

Several policies could be pursued to redress this imbalance. State standards and training commissions could adopt and enforce a high school graduation entrance requirement. In some cases, standards and training commissions or state planning agencies may wish to provide financial assistance to small agencies that cannot otherwise compete for qualified personnel. The consolidation of small agencies that are unable to adequately meet their manpower requirements is another possible long-range solution. State planning agencies and LEAA regional offices could encourage higher educational attainment among incumbents of smaller agencies by giving these incumbents priority standing for LEEP funding, or by allocating additional funds to LEEP-funded schools that are in proximity to small agencies.

The data regarding the level of educational attainment of sworn personnel by state suggest that the distribution of educational levels among the states is correlated somewhat with the education levels of the state populations as a whole, and with the extent to which the state supports public higher education. Whatever the need for college-educated sworn personnel is by state, it most likely doesn't vary according to the education level of the general population within the state. State governments and state planning agencies in states that have relatively low percentages of college-educated police and who see this as a problem could pursue statewide policies to encourage the recruitment and retention of college graduates. Also, LEEP program funds might be used to correct the imbalances among states.

NOTES AND REFERENCES

1. Joseph McNamara, "History of Higher Education for Police." Paper presented to National Symposium on Higher Education for Police, Kansas City, Missouri, October 9, 1975. Processed.
2. In a few limited instances courts have accepted validation research that upholds the high school education and two-year college criteria as job-related for the departments in which the research was done. (Unfortunately, the NMS has been unable to obtain reports on this research since the potential for further litigation still exists in those jurisdictions). The American Psychological Association specifications for validation research specify that validation research performed in one agency is not applicable to another agency unless it can be demonstrated that the two departments in question are essentially similar in all respects that could be expected to affect background and performance.
3. In some of these states (the number is unspecified), a G.E.D. certificate is acceptable in lieu of graduation from high school. In at least 12 of the states, requirement has the force of law (NASDLET Survey of State Directors of Standards and Training Commissions, 1974).
4. The Advisory Commission on Intergovernmental Relations refers to this argument in its discussion of state standards, *State-Local Relations in the Criminal Justice System* (1971), p. 167.
5. Michael Rosenfeld and Richard Thornton. *Presentation before the Police Applicant Selection Project Advisory Board*, Washington, D.C., June 1974.
6. The President's Commission on Law Enforcement and Administration of Justice, p. 127.
7. National Advisory Commission on Criminal Justice Standards and Goals, p. 369.
8. One recent study finds that 6 percent of the agencies surveyed has some level of college education as a standard. Correcting for the differences in the samples covered (the survey only included agencies with 50 or more employees), approximately 6.5 percent of all agencies in the NMS sample reported an education standard at entry that was above the high school level. Terry Eisenberg, Deborah Ann Kent, and Charles Wall, *Police Personnel Practices in State and Local Governments* (Police Foundation and International Association of Chiefs of Police, 1973).
9. *Ibid.*, p. 12.
10. The President's Commission on Law Enforcement and Administration of Justice, p. 127.
11. For a complete discussion of the job analysis conclusions relevant to higher education, see Volume VIII.
12. The Police Chief Executive Committee, *The Police Chief Executive Report* (International Association of Chiefs of Police, 1976), p. 17.
13. The President's Commission on Law Enforcement and Administration of Justice, p. 127.
14. The Police Chief Executive Committee, Appendix D-3, p. 5.

CHAPTER VI. TRAINING FOR LAW ENFORCEMENT OCCUPATIONS

A. Introduction

The need for law enforcement training is generally recognized. The recruit trainer is faced with the awesome responsibility of transforming candidates with little or no background in police work into full-fledged officers. There is a complex set of laws, legal procedures, and departmental policies to assimilate. The recruit must learn the fundamentals of criminal and accident investigation and become proficient in self-defense, weapons, first aid, and emergency driving. He or she also has to learn how to deal with crisis situations and how to make effective use of discretion. The training of incumbents for specialized functions and for supervisory and managerial roles is no less complex a task.

From the opening, in 1895, of the New York Police Department's School of Pistol Practice until 1960, law enforcement training could be characterized as an activity in which only large departments were deeply engaged. For the most part it concentrated on training for the legal and technical aspects of the job.

In the last 15 years, significant developments have changed the character of law enforcement training. The civil liberties and civil rights movements, unrest in the cities, the rising crime rate, antiwar demonstrations, and Supreme Court decisions protecting the rights of the accused have all emphasized the fact that the individual officer exercises considerable discretion and responsibility. Many administrators and observers have come to feel that training and other related personnel development strategies are the most effective ways of influencing performance.

B. Comparison of Current Training With Desired Standards

This section reviews the recommendations suggested by the prescriptive literature and the information garnered by this project relative to the characteristics of desirable training, and compares these perceptions with the data on current training. It should be emphasized that the prescriptions reflect the opinions of panels of experts, of incumbents, or of incumbents' supervisors. None of the proposed standards has been demonstrated by criterion-related validation to be significantly related to performance. They should therefore be considered as suggestive rather than definitive.

1. *Entry-level training.* The Peterson Commission and the President's Commission both recommend that entry-level training be universal and that it be provided immediately upon entry.[1] The reasonableness of this recommendation is verified by the job analysis research undertaken by the National Manpower Survey. Fifty-four incumbent patrol officers were asked to rate the skill and knowledge requirements for adequate performance in each of 66 areas relevant to police work. The respondents rated 14 of these as requiring a high degree of skill or knowledge upon entry.[2] Among these are criminal law, investigative techniques, report writing, and defensive tactics—all areas in which the recruit can hardly be expected to be proficient without training.

It is difficult to say in the abstract how long training should be, as there is an obvious trade-off between duration and intensity. The types of teaching techniques, the talent of the instructor, and the ability of the student all affect the length of time required to teach a given subject. For this reason, many educators define training requirements in terms of performance objectives. The training required for a given skill is that which enables the student to perform the skill at a level defined as acceptable—the performance objective. The Peterson Commission recommends that

> . . . every police training academy . . . defines specific courses according to the performance objective of the course and . . specify what the trainee must do to demonstrate achievement of the performance objective. [3]

Both commissions conclude, however, that 400 hours of formal classroom work is the minimum length of time required to train a recruit properly.[4]

The President's Commission concludes that small, rural departments often do not provide training, not because it is not needed, but because they can't afford it. "By and large this is a question of money. Training programs are expensive and they cannot be provided on a local basis for two or three officers at a time." [5]

In its discussion of the content of training, the Peterson Commission describes six general areas requiring classroom training, inclusive of all training topics. The Commission's topics and their definitions are as follows:

- *Introduction to the Criminal Justice System.* An examination of the foundation and functions of the criminal justice system with specific attention to the role of the police in the system and government.
- *Law.* An introduction to the development, philosophy, and types of law; criminal law; criminal procedure and rules of evidence; discretionary justice; application of the U.S. Constitution; court systems and procedures; and related civil law.
- *Human Values and Problems.* Public service and noncriminal policing; cultural awareness; changing role of the police; human behavior and conflict management; psychology as it relates to the police function; causes of crime and delinquency; and police-public relations.
- *Patrol and Investigation Procedure.* The fundamentals of the patrol function including traffic, juvenile, and preliminary investigation; reporting and communication; arrest and detention procedures; interviewing; criminal investigation and case preparation; equipment and facility use; and other day-to-day responsibilities and duties.
- *Police Proficiency.* The philosophy of when to use force and the appropriate determination of the degree necessary; armed and unarmed defense; crowd, riot, and prisoner control; physical conditioning; emergency medical services; and driving training.
- *Administration.* Evaluation, examination, and counseling processes; departmental policies, rules, regulations, organization, and personnel procedures. [6]

Table VI–1 shows the results of the NMS job analysis regarding the levels of expertise required in each of several areas, classified according to the Peterson Commission's taxonomy. Although the topics used in this project do not include all the subjects suggested by the Commission, the incumbents' responses suggest that all of the topics require formal training.

On the basis of a review of the curricula of five cities with model entry-level training programs, the Peterson Commission recommends that academy time be distributed in the following way:

	Percent
Introduction to the Criminal Justice System	8
Law	10
Human Values and Problems	22
Patrol and Investigation Procedures	33
Police Proficiency	18
Administration	9
Total	100

In commenting on the distribution of vocational and academic topics in this curriculum, the Commission concludes that:

> This recommended curriculum may seem heavily vocational. However, when it is applied to a minimum 400-hour program, it must be vocational to provide the employee with the essential basic skills necessary for field performance. As a program increases in length, and as more efficient learning methods are used, the program can introduce additional academic subjects. The vocational subjects must not be reduced; complementary subjects can be added to these basic skills. [7]

Although formal classroom training is agreed to be necessary, most authorities now feel that supervised and structured on-the-job experience is also important. Structured field training, which consists of the short-term apprenticeship of a recruit, is perceived as a method of bridging the gap between the theory presented in the classroom and actual practice on the street. Field training is also considered to be one of the best ways to teach skills and procedures that have to be learned through practice in real or simulated situations.

That skills and procedures of this kind constitute a major portion of what has to be known is demonstrated by the results of the job analysis described earlier in this chapter. One-hundred-and-fifty line incumbents from 30 law enforcement agencies were asked by the NMS to specify where they learned each of 44 job tasks. Of the 28 tasks that are performed by at least three-quarters of the respondents, only five are identified as having been learned primarily through formal classroom training.

Field training was determined to be a high priority by the NMS law enforcement training panel. The panelists considered the field training program to be an integral part of the training curriculum and

TABLE VI–1

Mean Requirement Levels for Police Officer Knowledge Items by Training Topic Categories: Incumbents' Ratings*

1. Introduction to the Criminal Justice System	Mean Rating	2. Law	Mean Rating	3. Human Values and Problems	Mean Rating
Police Authority, Responsibility and Rights	3.2	Laws of Evidence	3.1	Crisis Intervention—Dispute Settlement	2.9
Civil Rights and the Processing of Complaints	2.9	Criminal/Civil Laws	3.0	Community Needs and Resources	2.4
Relationships among Criminal Justice System Agencies	2.7	Local Laws and Ordinances	3.0	Police—Community Relations	2.4
Police History, Role and Mission	2.2	Courtroom Procedures and Presentation of Testimony	3.0	Contemporary Social Problems	2.2
		Criminal and Civil Legal Procedures	2.9	Human Relations—Group Processes	2.2
		Motor Vehicle Law	2.9	Juvenile Delinquency	2.2
		Laws and Procedures in Juvenile Cases	2.7	Radical Groups and Dissidents	2.2
		Legal Issues and Trends in Criminal Law Enforcement	2.3		
		Warrant and Subpoena Procedures	2.3		

* REQUIREMENT LEVELS
The means of respondents' ratings of the level of expertise required for each knowledge item.
0—No knowledge required.
1—Slight.
2—Moderate.
3—High.
4—Expert.
Source: NMS Job Analysis, 1975

concluded that it should be given strong management support and should be sufficiently structured.

Both the President's Commission and the Peterson Commission strongly encourage the development of structured field training programs.[8] The Peterson Commission specifies that field training should include: (1) a minimum of four months of training with a sworn coach, (2) rotation of field assignments, (3) performance evaluation and feedback, and (4) additional training at the academy after completion of basic training.

The prescriptive literature also deals at some length with factors bearing on the quality of entry-level training, including instructor training and qualifications, teaching methods and student-instructor ratios. Factors such as these are considered in the NMS review of law enforcement academies.

The data we have suggest that training is almost universally offered to recruits of all but the smallest agencies. One-hundred percent of all agencies surveyed with 400 or more employees and 96 percent of all agencies with 25 or more employees offer entry-level training. However, only 60 percent of the agencies with fewer than 25 employees provide or

4. Patrol and Investigation Procedures	Mean Rating	5. Police Proficiency	Mean Rating	6. Administration	Mean Rating
Arrest Techniques	3.2	Use of Physical Force—Lethal and Non-Lethal Weapons	3.4	Availability, Use and Maintenance of Police Supplies and Equipment	2.7
Accident Investigation	2.9	Care and Use of Firearms	3.2	Departmental Goals and Objectives	2.6
Traffic Control	2.7	Technique for Searching a Person	3.2	Departmental Communications	2.4
Hostages and Sniping	2.5	Hot Pursuit—Defensive Driving	3.2	Use of Agency Files	2.4
Field Testing for Intoxication or Drug Abuse	2.4	Preparation of Clear/Concise Reports	3.1	Police Organization, Administration and Operations	2.8
Crowd/Riot Control	2.4	Defensive Tactics—Physical Training	3.0	Media Relations	2.0
Crime Strike/Task Force	2.1	Disarming, Handcuffing and Other Restraint	3.0	Use of Computer Terminal	2.0
Fire Procedures	2.1	Written and Oral Communications	2.9		
Preliminary Investigations	3.0	First Aid/Rescue	2.6		
Felony Investigations	3.0				
Collecting, Recording and Analyzing Information	3.0				
Interviewing	3.0				
Protection/Analysis of Crime Scene	2.9				
Procedures for Suspect Indentification by Witness or Victim	2.8				
Information Sources/ Informants	2.7				
Techniques for Investigation of Lost or Stolen Items	2.6				
Capabilities of Crime Laboratories	2.3				
Surveillance	2.3				
Criminalistics/Forensic Science	2.0				
Fingerprints—Collections, Preparation, Classification and Use	2.0				
Police Photography	1.7				

require entry-level training. Approximately 86 percent of all new personnel without training are associated with agencies with fewer than 24 employees.

The development of state and regional academies has undoubtedly done much to improve the access of small agencies to training that they cannot possibly provide for themselves. But despite the growth of entry-level training that is documented in this chapter and elsewhere, there remains a significant minority of new entrants in very small agencies who have not received training.[9] Assuming that these personnel should have skills and knowledge not dissimilar from those perceived to be necessary for other police officers, then it is in such agencies that the system is weakest.

A similar pattern exists with respect to the duration of training offered. Overall, approximately 63 percent of new recruits (in 1975) receive at least 400 hours of formal classroom training, consistent with the commissions' recommendations regarding duration. The 37 percent who receive less than 400 hours of training or no training at all, are concentrated in the smaller agencies. Ninety-one percent of all agencies responding to the NMS survey with 400 or more

employees provide entry training that is at least 400 hours in duration. However, only 56 percent of the agencies with between 75 and 399 employees and 26 percent of the agencies with fewer than 75 employees meet this standard.

Although the Peterson Commission considers its training-content recommendations to be highly vocational, a comparison with curricula currently offered in law enforcement academies suggests that the Commission puts considerably more emphasis on "human values and problems" than do current curricula. Table VI-2 displays the percentage distribution of course time recommended by the Peterson Commission and the distribution that prevails among the academies responding to the NASDLET survey. The Commission recommends that 22 percent of course time be allotted to "human values and problems," but the academy curricula only call for an average of 7 percent. The next most important discrepancies occur with respect to the two most technical topics—"patrol and investigation procedures" and "police proficiency." In both cases the percentages offered are somewhat higher than those recommended by the Commission.

That the content of training currently offered to recruits is not sufficient for the broad range of tasks required for successful performance of the job of patrol officer, is also suggested by the NMS job analysis. Incumbents judged that they learned only 5 of 28 tasks through formal training. Trained recruits are judged to be deficient in several important skills. Relatively little information is available on prevalence of structured field training of the type recommended by the commissions.

As of August 1974, the standards and training commissions of only 13 states required field training.[10] Of these, the longest required field training was 50 hours—far short of the recommendation that field training be a minimum of four months. About half of the 206 academies responding to the NASDLET survey indicate that they either operate field training (25 percent) or coordinate field training activities that are offered by the recruit's agency (22 percent).[11] Unfortunately, there is no way of knowing the extent to which these activities conform to the duration and structure recommendations cited above.

2. *In-service training.* Both the Peterson Commission and the President's Commission recommended that all sworn police personnel receive periodic formal training. The Peterson Commission states that:

> Every police agency should provide 40 hours of in-service training annually to sworn police employees. This training should be designed to maintain, update, and improve necessary knowledge and skills.[12]

Various topics are recommended for regular in-service training. The New York City Police Department study of training recommends that each patrolman undergo firearms training three times a year for a total of two days, and that physical training be offered to the extent possible. The report suggests that continued physical training leads to improved morale, efficiency, a better public image, and a decrease in the loss of man-hours due to sick time.[13] Training for unusual occurrences is recommended by the Peterson Commission.[14] Almost 90 percent of the executives of large agencies surveyed feel that specialized training for the peacekeeping function is necessary.

In-service training has also been strongly recommended for incumbents in specialized, supervisory, and managerial positions. The Peterson Commission recommends that formal in-service training should be provided to employees up to or including captain or its equivalent.[15] Another study recommends 80 hours of legal training once every three years for

TABLE VI-2

Peterson Commission Recommendations Regarding the Percentage Distribution of Time Among Course Topics Compared With the Actual Distribution of Time in Law Enforcement Academies in 1975

Training Topic	Peterson Commission Recommendations	Distribution of Coursework in Surveyed Academies*
All Topics	100	100
1. Patrol and Investigation Procedures	33	39
2. Human Values and Problems	22	7
3. Police Proficiency	18	28
4. Law	10	14
5. Administration	9	6
6. Introduction to the Criminal Justice System	8	6

*The categories in the NASDLET Survey that correspond to those that the Peterson Commission uses are: (1) traffic, criminal procedures, juvenile detention; (2) community and human values and problems; (3) weapons; (4) legal subjects; (5) agency policies and procedures; (6) orientation and introduction to criminal justice system.

Source: National Advisory Commission on Criminal Justice Standards and Goals, *Police* (1973), p. 394; NASDLET Survey of Law Enforcement Academies 1975.

detectives and supervisors.[16] Specialized training has also been recommended for community service officers, evidence technicians, and internal affairs investigators.[17]

Although a large percentage of agencies offer in-service training to line personnel, it is offered far less frequently and is, on average, shorter than the commissions' recommendations call for. Agencies offering at least some in-service training account for approximately 84 percent of all the police and 74 percent of all sheriff personnel. But in-service training is not by any means provided to all personnel every year. Most agencies responding to the NMS survey had provided training to less than a quarter of their personnel in the year preceeding the survey. That less than 36 percent of all incumbents have ever had in-service training suggests that the current volume of such training is considerably below the standard. Sixty percent of all large police agencies offer in-service training that averages less than 40 hours.

It is impossible, with the available data, to determine precisely the extent to which the specific training-content recommendations cited above are being met. Weapons training is the third most frequently offered in-service training topic. But how often weapons training is offered and how extensive the courses are cannot be determined from the available information. Physical training, which is also recommended for in-service training is the topic least frequently offered.

In-service training for specialists, supervisors, and managers is clearly infrequent. Only 42 percent of all investigators and 45 percent of supervisors and managers included in the Census survey report having participated in at least one specialized training course since they joined the department.[18] A recent survey of agencies in jurisdictions with populations over 100,000 suggests that more than half such departments have no training program for newly-appointed investigators. On the average, these investigators receive 31 hours of training a year.[19]

3. *Supervisory training.* There is a virtual consensus that formal training is necessary for newly appointed supervisors. The National Advisory Group on Productivity in Law Enforcement concludes:

> (in order) to encourage supervisors to take an active role in developing the personnel under their command, they must be trained, evaluated, and rewarded. Training should include how to set objectives, establish performance criteria, create feedback, and develop learning styles.[20]

Both national commissions have made similar recommendations.[21] Ninety percent of the chief executives responding to the NMS Executive Surveys agree that supervisory training is necessary.

The need for supervisory training is also shown by the results of the NMS job analysis. The analysis shows that the supervisor occupation involves more tasks and a wider range of skills than does the patrol officer occupation. Abilities concerned with organization, management, and staff services are required.

A relatively small number of agencies require that their newly appointed supervisors complete supervisory training before assuming their responsibilities. Thirty-seven percent of the responding police agencies and 29 percent of the sheriffs agencies require such training.

Receipt of supervisory training does not, of course, assure that the new appointee is sufficiently trained. The job analysis results suggest that new patrol and detective supervisors who have participated in training are still deficient in several important aspects of the job. That incumbent supervisors judge that they learned all of the relevant tasks primarily through on-the-job experience suggests that the training that is offered is not sufficiently effective.

C. Conclusions and Recommendations

This chapter has reviewed the current status of entry-level, in-service, and supervisory training in terms of their duration, content, and incumbents' perceptions of sufficiency. Subject to the caveats expressed in the introduction to this chapter, the following conclusions are indicated.

- The results of the job analysis and of the survey of chief executives both support the contention of the Peterson Commission that all agencies should provide training to all their new personnel at the time they are hired. There are skills and areas of knowledge essential to the job that must be formally taught. The appraisals of the chief executives of the smallest agencies (departments in jurisdictions with populations under 17,000) with respect to the desirability of entry training are similar to those of all respondents. There remains a hard core of agencies, which account for not less than 9 percent of all recruits, that do not provide any formal training to their new entrants. These are, for the most part, small agencies. They are concentrated in states that are heavily rural.

- Among agencies offering training, considerable progress is being made in the duration of training that is offered. Overall, approximately 63 percent of all recruits in 1975 received at least 400 hours of formal classroom training. The 37 percent who received less 400 hours of training were concentrated in the smaller agencies.
- The percentage of classroom time devoted to topics relating to human values and problems was somewhat less than that recommended by the Peterson Commission in 1973. Moreover, the NMS job analysis results indicate that trained recruits in 1975 were very deficient in background training in "crisis intervention and dispute settlement."
- Incumbents interviewed in police jobs indicated that a considerable number of procedural and otherwise standard tasks are not trained for. They rate only 5 of 28 police officer tasks as having been learned through formal training. Trained recruits' skills and knowledge in several important areas (e.g., "interviewing and eliciting information," "local laws and ordinances," "preparation of clear, concise report") were rated as very deficient.
- There was relatively little structured field training indicated, and what there was typically was not as long or as structured as has been recommended in terms of the NMS job analysis. This supports the finding of the Peterson Report.
- Although most agencies contacted offer in-service training of some type, incumbents receive this training infrequently. Only 36 percent of all sworn personnel in 1974 had participated in a specialized training course. Only slightly larger percentages of specialists, supervisors, and managers had received in-service training. Forty-two percent of all investigators and 45 percent of supervisors and managers reported having received in-service training of any kind.
- The national commissions called for every line incumbent to receive 40 hours of regular in-service training every year. Only 5 percent of the large agencies (400 or more personnel) and less than 2 percent of smaller agencies in 1975 were offering regular in-service training to three-quarters or more of their personnel. The in-service training that is offered averages 32 hours in duration. The training issues most frequently covered are "weapons practice," "investigation procedures," and "criminal law."
- The Peterson Commission's recommendation that formal supervisory training be given to all newly appointed supervisors is supported by the results of the job analysis and of the executive survey. The job analysis results show that the supervisor's job involves more complex tasks and a wider range of skills than the patrol officer's. Ninety percent of the law enforcement chief executives surveyed believe that training is necessary for newly appointed supervisors.
- Despite this consensus, supervisory training is still uncommon, and the effectiveness of the training that is being offered is questionable. Only 37 percent of the agencies surveyed offer training to their newly appointed supervisors. The NMS job analysis indicates that, even among agencies that require supervisory training, the newly trained supervisors have learned all the tasks unique to the supervisory position primarily through on-the-job experience. Newly appointed and trained supervisors are deficient in several important areas of knowledge.

The following recommendations are offered as ways to address the shortcomings that are noted above.

- Several possible approaches can be taken to the problem of agencies that do not offer entry-level training. One solution, suggested by the NMS Training Panel, is for states to provide substitute personnel to fill in for officers of small agencies while they are attending regional training. Another possibility would be to open training academies to individuals who are considering applying to agencies without entry-level training. Correspondence courses could provide a possible interim solution. Different strategies are probably called for in different states and regions. In any event, state planning agencies and standards and training councils should be encouraged to consider training for untrained personnel a priority. Structured field training is a necessary addition to formal classroom training. Since so much of the job is now and must be learned through experience, it is important that experience be gained from a qualified officer who knows what the recruit must learn and how best to teach it. Field training should be at least several months in duration. It should include well trained and screened field-trained officers, a precise list of topics, and a mechanism for frequent evaluation and feedback.
- State planning agencies and standards and train-

ing commissions should be encouraged to promote the development of structured field training. Field training is especially useful for agencies that utilize regional academies. The field training officer can teach the recruit about agency policies and procedures. Incumbents' overall low appraisal of the value of the entry-level training that they received suggests that significant changes in content and teaching techniques are called for. The NMS Law Enforcement Training Panel recommends that teaching techniques be designed to emphasize experiential learning, such as simulation exercises and role-playing.

- If it can be shown generally, as it has been in a few experimental programs, that training in aspects of the peace-keeping role can affect the performance of in-service personnel, then in-service training should be used for that purpose. Experimentation with these and other innovations should be encouraged, along with careful evaluation studies to measure their effectiveness. Considerably more emphasis, should be placed on in-service training and on training for newly appointed supervisors. State standards and training commissions should consider establishing minimum standards for such training. The development of nationally sponsored model programs would be helpful to encourage the development of quality in-service training.
- Further research is necessary in order to expand and clarify our knowledge of the requirements for training and of the effectiveness of various training approaches. The NMS Training Panel suggests that LEAA funding for the determination and validation of training requirements in each of the states would be a worthwhile investment. LEAA could also perform a considerable service by supporting evaluation research to measure the effectiveness of innovations in curricula and in teaching techniques. In recent years many new programs have been developed, but very little is known about their effectiveness.

NOTES AND REFERENCES

1. The President's Commission on Law Enforcement and Administration of Justice, *Task Force Report: The Police* (1967), p. 139; and National Advisory Commission on Criminal Justice Standards and Goals, *Police* (1973), pp. 392 and 393.
2. That is, areas rated at least 3.0 on a 0–4 scale of increasing expertise required.
3. National Advisory Commission on Criminal Justice Standards and Goals, p. 388.
4. *Ibid.*, p. 392–394; and The President's Commission on Law Enforcement and Administration of Justice, *The Challenge of Crime in a Free Society* (1967), p. 112.
5. The President's Commission on Law Enforcement and Administration of Justice, *Task Force Report: Police*, p. 112.
6. National Advisory Commission on Criminal Justice Standards and Goals, p. 394.
7. *Ibid.*, p. 394.
8. The President's Commission on Law Enforcement and Administration of Justice, p. 112; and the National Advisory Commission on Criminal Justice Standards and Goals, pp. 392 and 393.
9. See, for example, George O'Connor, "Report for the President's Commission on Law Enforcement and Administration of Justice," (1967); and Ostrom, *et al.*, p. IX–4.
10. NASDLET Survey of State Training Directors (1974).
11. NASDLET Survey of Law Enforcement Academies (1975).
12. National Advisory Commission on Criminal Justice Standards and Goals, p. 404.
13. U.S. Department of Justice, LEAA and the New York City Police Department, *Police Training and Performance Study* (1970), pp. 130–31, 139–41.
14. National Advisory Commission on Criminal Justice Standards and Goals, pp. 184 and 195.
15. *Ibid.*, p. 404.
16. U.S. Department of Justice, LEAA and the New York City Police Department, p. 116.
17. The President's Commission on Law Enforcement and Administration of Justice, pp. 155 and 156, and the National Advisory Commission on Criminal Justice Standards and Goals, p. 295.
18. Management training and education are discussed in Volume V.
19. Jan M. Chaiken, *The Criminal Investigation Process. Volume II: Survey Municipal and County Police Departments* (The Rand Corporation, 1975), p. 17.
20. *Opportunities for Improving Productivity in Police Services* (National Commission on Productivity, 1973), p. 63.
21. National Advisory Commission on Criminal Justice Standards and Goals, p. 393; and the President's Commission on Law Enforcement and Administration of Justice, p. 141.

APPENDIXES

APPENDIX A. SUMMARY OF EFFECTS OF POLICE EXPENDITURES AND MANPOWER ON CRIME RATES AND CLEARANCE RATES

TABLE 1

Author	Sample	Methodology	Independent Variable(s)	Dependent Variable(s)	Percent Change in Dependent Variable Associated With a One Percent Change in the Independent Variable
Erlich (1973)	47 states (1960)	2 Stage least squares	Per capita expenditure on police	Felony offenses____	−3.04
Greenwood and Wadycki (1972)	212 SMSA's (1960)	3 Stage least squares	Police per capita	Crimes against property _____	+1.30
				Crimes against persons _____	+1.68
Pogue (1975)	66 SMSA's (1968)	2 Stage least squares	State government expenditures on police per capita	Felony clearance rate _____	−1.14
				Felony offenses____	+2.70
			Annual expenditures on law enforcement per capita within an SMSA	Felony clearance rate _____	−.144
				Felony offenses____	−.0059
Chapman, Hirsch and Sonenblum (1975)	Los Angeles (1956–1970)	Serial correlation	Per capita field officers	Prevented crime rate _____	+3.24
				Felony arrest rate	+.718
			Per capita civilian employees	Prevented crime rate _____	+4.72
				Felony arrest rate	+.74
Chapman (1976)	147 California cities (1960, 1970)	2 Stage least squares	Police per capita	Property crimes per capita _____	−.56
				Violent crimes per capita (murder and assault) ____	−.054
				Total arrest rate __	+.60
Forst (1976)	50 States (1970)	2 Stage least squares	Per capita expenditure on police	Felony offenses____	−1.04

TABLE 2

Author	Sample	Methodology	Independent Variable(s)	Dependent Variable(s)	Results
Swimmer (1974)	All cities 100,000 + population (1960)	Ordinary least squares 2 Stage least squares	Police expenditure per capita	Property crime rate Violent crime rate	−.028* −.117*
Morris and Tweeten (1971)	754 cities (1960, 1967–68)	2 Stage least squares	Police per 100,000 population	Violent crime rate Property crime rate	1.78* 20.51*
Wellford (1974)	21 largest cities (pooled cross-sectional 1960 and 1972 data)	Multiple correlation analysis	Number and rate of police Per capita police budget Ratio of police budget to total city budget	Property crime rate Violent crime rate Felony clearance rate	
McPheters and Stronge (1974)	43 largest central cities (1970)	2 Stage least squares	Police expenditures	Felony offenses	
Allison (1972)	Chicago and cities 25,000 + within a 40 mile radius (1960)	Linear stepwise regressions	Number of persons per police department employee Expenditure by the community for police protection per capita	Felony offenses____	N.S.**
Jones (1973)	155 cities (1958–59 to 1960–70)	Comparison of annual percent changes	Police per capita Police expenditures per capita	Violent crime rate Property crime rate	
Kau and Rubin	60 cities (1961 and 1970)	2 Stage least squares Ordinary least squares	Police per capita	Violent crime rate Property crime rate	N.S.**
Votey and Phillips (1974)	U.S. time series	2 Stage least squares	Police protection expenditures	Larceny clearance ratio_____	+.292

*Regression coefficient.
**Statistically not significant.

APPENDIX B. FACTORS AFFECTING POLICE POPULATION RATIOS IN CITIES OF 25,000 TO 1,000,000 POPULATION

As one part of its effort to describe and explain the distribution of employment for police protection activities, the National Manpower Survey examined the relation of police employment in 1973 in cities of 25,000 to 1,000,000 population to selected social, economic, and demographic variables. Fiscal, demographic, and crime data were assembled for 711 cities for multi-variate analysis. The analysis, although performed on city rather than on State data, and with different statistical techniques, complements the analysis of the NMS projections model.

Police employment per 100,000 population served varies greatly in cities of 25,000 to 1,000,000 population. For all cities studied the average per 1,000,000 population is 202 employees. However about 35 percent of the cities employ more than 269 or less than 135 per 100,000 inhabitants. Obviously a number of police departments are manned at twice the ratio to population of others and a further review of the data shows some with more than three and four times the employees per 100,000 population of others.

The variables tested for their relation to police employment included:

- Total police department employment, 1973
- Total police department employment per 100,000 population, 1973
- Total Part I crimes per 100,000 population, 1973
- Robberies per 100,000 population, 1973
- Burglaries per 100,000 population, 1973
- Aggravated assaults per 100,000 population, 1973
- Population, 1973
- Population per square mile, 1973
- Percentage black males, 15–24, 1970
- Percentage males 15–24, 1970
- Percentage low income families, 1970
- Per capita income, 1972
- Taxes per capita, 1970
- Median school years completed, 1970
- Percent who completed four years of college, 1970
- North-South dummy variable
- Percentage of families with income 25,000+, 1970

Among the variables selected, the factors that contributed most to explaining differences in police population ratios for all cities studied are the number of robberies per 100,000 population, the per capita tax rate, and the proportion of low income families. About 30 percent of the variation is related to differences in the robbery rate with more police employees in cities with higher robbery rates. Differences in per capita tax rates explain another 15 percent. It should be noted that tax rate and police employment are not opposite sides of the same coin as police protection services made up only about 5 percent of all municipal expenditure in 1973.

The effect of the robbery rate is greatest in the largest cities—those of 100,000 to 1,000,000 population, where it explains 46 percent of the variation in police populaton ratios. In the medium size group the robbery rate explains only 4 percent of the variation, and in the cities of 25,000 to 50,000 population 13 percent of the variation.

The per capita tax rate becomes more important in the medium and small size cities, where it explains 19 percent and 25 percent of the variation in police employment per 100,000 population. The percent of families with incomes below the poverty level enters as a significant factor only in the small cities and especially in the smallest size included—those of 25,000–50,000 population, where it explains 5 percent.

Despite the number of social and economic variables tested, a large portion of the variation in police population ratios remains unexplained. For all cities of 25,000 to 1,000,000 population as a group, only 50 percent of the variation in the police population ratio is explained by the variables found to be significant.

In the larger cities—those above 100,000 population—53 percent of the variation is "explained," and in the smallest cities—those of 25,000 to 50,000 population—only 40 percent of the variation is explained by variables found to be significant. Unexplained variation may be attributed to community preferences, that is, the amount of policing desired as well as to other variables not included in this analysis

TABLE 1

Summary of Multiple Regression Analysis with Police per 100,000 Population the Dependent Variable

Step	Variable Entered[a]	R^2	Regression Coefficient	T-Statistic[b]	Beta Weight	
			All Cities			
1	ROB	.203	12.153	9.665	.335	R^2 = .504
2	TAX	.456	.044	14.695	.407	F-Statistic = 123.664
3	LOFAM	.498	9.458	5.139	.177	S.E. = 47.061
4	SQMLE	.500	.001	2.379	.069	Constant = 111.67
5	BLMALES	.502	4.953	2.121	.082	
6	SIZE	.504	.0003	1.745	.049	
			Cities 100,000–999,999			
1	ROB	.406	19.30	7.215	.511	R^2 = .530
2	TAX	.516	.033	4.131	.272	F-Statistic = 50.582
3	BLMALES	.530	9.263	2.199	.142	S.E. = 53.512
						Constant = 136.39
			Cities 50,000–99,999			
1	TAX	.191	.041	8.550	.451	R^2 = .480
2	BLMALES	.406	11.848	2.685	.221	F-Statistic = 38.404
3	ROB	.449	7.372	3.382	.225	S.E. = 42.905
4	SQMLE	.466	.002	2.827	.156	Constant = 112.07
5	LOFAM	.480	8.353	2.486	.173	
			Cities 25,000–50,000			
1	TAX	.250	.049	11.8564	.456	R^2 = .436
2	ROB	.382	12.861	8.489	.331	F-Statistic = 102.644
3	LOFAM	.436	11.021	6,142	.236	S.E. = 45.988
						Constant = 114.57

[a]ROB = Robberies per 100,000 population, 1973; TAX = Taxes per capita, 1970; LOFAM = Percentage low income families, 1970; SQMLE = Population per square mile, 1970; BLMALES = Percentage black males, 15–24, 1970; and SIZE = Population 1973.

[b]All regression coefficient statistically significant ($P < .05$).

APPENDIX C. THE NASDLET SURVEY

During 1975, 236 law enforcement academies in 45 states responded to a survey initiated by the National Association of State Directors of Law Enforcement Training (NASDLET) in cooperation with the NMS. This appendix summarizes some of the other principal findings of that survey.

1. *Duration of entry-level training*. Table 1 shows that the average duration of entry-level training offered by the responding academies was 415 hours. Agency-affiliated academies offered an average of 494 hours, regional and state 382; academically-affiliated 290 hours.

Fifty-four percent of the agency-affiliated academies provided 440 or more hours of entry-level training compared to 22 percent for regional/state academies and 15 percent of the academic affiliates.

2. *Content of entry-level training*. Table 2 shows the classroom time allotted to each of 12 training topics. Topics which were allocated most of the class time cover the procedural aspects of the job: legal subjects, criminal evidence, and investigative procedures and patrol procedures. The topics covered most briefly were those most mentioned in the changing role of the urban police officer: community and human values and problems, orientation and introduction to the criminal justice system and juvenile matters.

3. *In-service training*. Nearly 9 out of 10 of the academies surveyed provided at least one in-service course. The most frequently offered were criminal law, criminal investigation, and firearms. Only nine percent offered training in supervision and management.

4. *Instructors*. Full-time teaching positions were found among only 21 percent of the law enforcement institutes. Part-time instructors were found almost exclusively in academically-affiliated academies. Eighty percent of the academies required instructor training of 5 to 10 days or more.

5. *Field training*. Although the National Advisory Commission placed heavy emphasis on field training, this training was provided only by 35 percent of the academies. There appeared to be a need for better organization where it is provided, together with provision for coach training.

6. *Funding* (Table 3). Forty percent of the agencies received funding from state and federal agencies; 15 percent from state planning agencies, 18.9 percent from state standards and training commissions and 18.5 percent from LEAA. Academic affiliates received only 5.7 percent from state planning agencies.

7. *Instructional technology*. Despite advances in instructional technology, the lecture method in academies remained predominant (93%). Although commissions have advocated performance testing, only 20 percent of academies were using this method while 93 percent indicated the paper and pencil test as the predominant evaluation device.

TABLE 1

Duration of Entry-Level Training, by Type of Academy, 1975

Type of Academy	Mean Course Length, Hours	Total	Percentage Distribution				
			Less Than 160 Hours	160–279 Hours	280–359 Hours	360–439 Hours	440 or More Hours
Academies, total (n = 209)	415	100.0	5.3	24.9	23.4	10.1	36.4
Agency affiliates (n = 105)	494	100.0	.3	16.2	17.1	9.5	54.3
Academic affiliates (n = 53)	291	100.0	3.8	37.8	33.9	9.4	15.1
Regional/State academies (n = 51)	382	100.0	11.8	29.4	25.5	11.8	21.5

Note: Detail may not add to total due to rounding.

Source: NASDLET Survey of Law Enforcement Academies, 1975.

TABLE 2

Time Allotted to Various Topics in Entry-Level Training Programs, 1975

Training Topics	Mean Duration of Course Coverage in Hours	Percentage Distribution of Time
All Topics	**414.8**	**100.0**
Legal Subjects	56.4	13.6
Criminal Evidence and Investigative Procedures	52.3	12.6
Patrol Procedures	48.1	11.6
Traffic	48.1	11.6
Weapons	42.3	10.2
Physical Training	40.3	9.7
Emergency Medical Procedures	33.6	8.1
Community and Human Values and Problems	29.9	7.2
Orientation and Introduction to Criminal Justice System	26.1	6.3
Agency Policies and Procedures	20.2	4.9
Juvenile	11.2	2.7
Detention	6.2	1.5

Source: NASDLET Survey of Law Enforcement Academies, 1975.

TABLE 3

Percentage of Academies Receiving Funding from State or Federal Sources, by Type of Academy

Academy Type	Percentage Receiving Funding From:			
	Any of These Sources	State Planning Agencies	State Standards and Training Commissions	LEAA Funding
All respondents	40.3	15.1	18.9	18.5
Agency academies	43.1	14.7	21.6	20.6
Academic affiliates	24.5	5.7	13.2	13.2
Regional/State academies	51.0	25.5	19.6	19.6

Source: NASDLET Survey of Law Enforcement Academies, 1975.

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