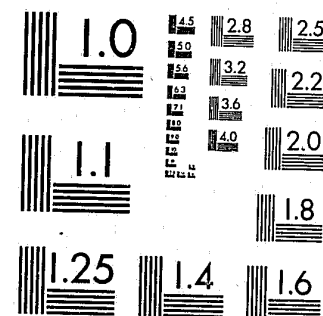


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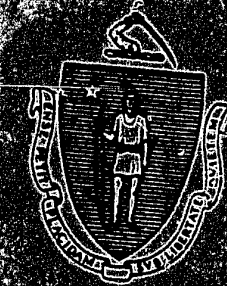
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THE COMMONWEALTH OF MASSACHUSETTS

COMMITTEE ON CRIMINAL JUSTICE

1975 MASSACHUSETTS CRIME RATES  
WHAT THE FIGURES DO AND DON'T TELL US

VOLUME I: ANALYSIS



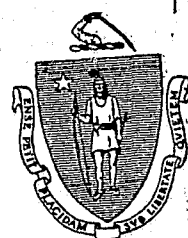
STATISTICAL ANALYSIS CENTER



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✓ 1975 MASSACHUSETTS CRIME RATES:  
WHAT THE FIGURES DO AND DON'T TELL US

VOLUME I: ANALYSIS



THE COMMONWEALTH OF MASSACHUSETTS

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December, 1977

TABLE OF CONTENTS

	<u>Page</u>
PART ONE: NARRATIVE	1
I. <u>INTRODUCTION</u>	1
A. Purpose and Content of the Report	1
B. Interpreting UCR Data: A Cautionary Note	1
C. Demographic and Socioeconomic Data:	
A Further Caveat	2
D. The Seriousness Scale	3
E. Victimization Data	5
F. Why do the Study	5
<u>APPENDIX A - Definitions of Part I Offenses</u>	7
II. THE MASSACHUSETTS CRIME PROBLEM IN 1975	9
A. Introduction	9
B. 1975 Crime in Urban and Suburban Areas	9
C. State Criminal Justice Planning Regions:	
Particular Crime Problems	15
1. Region 6 - The City of Boston	15
2. Violent Crime in Western Massachusetts	15
3. Robbery in Regions with large cities	15
4. Crime in Region 5 - Quincy and	
Southern Suburbs of Boston	15
D. Variation in Crime within Regions	20
1. Region 2 - Central Massachusetts	20
2. Region 7	29
E. Counties	30
F. Seven High Crime Cities	30
III. Victimization Rates	40
A. Introduction	40
B. Limitations of the Victimization Data	40
1. Why we Cannot Compare 1974 and 1975	
Massachusetts Victimization Rates	40
2. Problems in Comparing Victimization	
and UCR Crime Rates	41
3. Other Biases in Victimization Data	41
C. Victimization Crime Rates	42
D. Percent of Crimes Reported to the Police	42
E. Comparison between Victimization and	
UCR Figures	45

	<u>Page</u>
F. Characteristics of Crime Victims	52
1. Personal Victims of Violent Crimes	52
2. Victims of Crimes of Theft	54
3. Characteristics of Crime Victims	56
G. Offender Characteristics	56
H. Consequences of Crime	60
IV. Crime Trends	63
A. Introduction	63
B. Crime Trends in Mass. and the United States: Total Crime	63
1. Mass. & U.S. - Total Index Crimes	63
2. Mass. & U.S. - Seriousness Scale Index	63
3. Mass. & New England - Total Index Crimes	63
4. Mass. & U.S.-Percent Changes in Crime Rates	63
C. Crime in Massachusetts and the United States: Crimes of Violence	67
1. Murder	67
2. Forcible Rape	67
3. Aggravated Assault	67
4. Robbery	73
5. Comparison of the Trends in Violent Crime Rates	73
D. Crime in Massachusetts and the United States: Property Crime	73
1. Burglary	73
2. Larceny	77
3. Motor Vehicle Theft	77
4. Comparison of Trends in Property Crime Rates	77
E. Changes in Crime Rates for Urban/Suburban Areas, 1974-1975	77
F. Chapter Summary	81
PART II: CRIME TABLE FOR MASSACHUSETTS CITIES AND TOWNS	82

## LIST OF FIGURES

<u>NUMBER</u>		<u>PAGE</u>
1-1	Comparison of 1975 State Census and Federal Bureau of the Census Population Estimates	4
2-1	Seriousness Scale Scores by Urban/Suburban Categories	10
2-2	Total Index Crime Rates by Urban/Suburban Categories	11
2-3	Violent Crime Rates by Urban/Suburban Categories	12
2-4	Property Crime Rates by Urban/Suburban Categories	13
2-5	Seriousness Scale Scores by Criminal Justice Planning Regions	16
2-6	Total Index Crime Rates by Criminal Justice Planning Regions	17
2-7	Violent Crime Rates by Criminal Justice Planning Regions	18
2-8	Property Crime Rates by Criminal Justice Planning Regions	19
2-9	Seriousness Scale Scores by Region II Planning areas	21
2-10	Total Index Crime Rates by Region II Planning areas	22
2-11	Violent Crime Rates by Region II Planning areas	23
2-12	Property Crime Rates by Region II Planning areas	24
2-13	Seriousness Scale Scores by Region VII Planning Areas	25
2-14	Total Index Crime Rates by Region VII Planning areas	26

<u>NUMBER</u>		<u>PAGE</u>
2-15	Violent Crime Rates by Region VII Planning areas	27
2-16	Property Crime Rates by Region VII Planning areas	28
2-17	Seriousness Scale Scores by Four High Crime Counties	31
2-18	Total Index Crime Rates by Four High Crime Counties	32
2-19	Violent Crime Rates by Four High Crime Counties	33
2-20	Property Crime Rates by Four High Crime Counties	34
2-21	Seriousness Scale Scores by Seven High Crime Counties	35
2-22	Total Index Crime Rates by Seven High Crime Cities	37
2-23	Violent Crime Rates by Seven High Crime Cities	38
2-24	Property Crime Rates by Seven High Crime Cities	39
3-1	Mass. Victimization Rates, Personal Incidents, 1974-1975 average	43
3-2	Mass. Victimization Rates, Household Incidents 1974-1975	44
3-3	Percent of Victims Reporting Crimes to the Police by Type of Crime, Mass. Personal Incidents, 1974-1975	46
3-4	Percent of Victims Reporting Crimes to the Police by Type of Crime, Mass. Household Incidents, 1974-1975	47
3-5	Percent of Individuals giving indicated Reasons for Not Reporting Personal Incidents, 1974-1975	48

<u>NUMBER</u>		<u>PAGE</u>
3-6	Percent of Individuals giving Indicated Reasons for Not Reporting Crime to Police, Massachusetts Household Incidents 1974-1975	49
3-7	Comparison of Crime Rates Based on Adjusted UCR and Victimization Data, Mass, 1974-1975 average	51
3-8	Crimes of Violence, Personal Incidents Victimization Rates for Demographic Groups, Massachusetts, 1974-1975 Average	53
3-9	Crimes of Theft, Personal Incidents Victimization Rates for Demographic Groups, Mass., 1974-1975 average	55
3-10	Household Incidents Victimization Rates for Demographic Groups, Massachusetts 1974-1975 average	57
3-11	Perceived Characteristics of Offenders, Mass., 1974-1975	58-59
3-12	Losses Due to Crimes, Massachusetts, average 1974-1975	61
4-1	Total Index Crime Rates, 1960-1975, Mass. and United States	64
4-2	Seriousness Scale Crime Rates, 1960-1975, Mass. and United States	65
4-3	Total Index Crime Rates, 1973-1975, New England States	66
4-4	Yearly Percent Change in Total Index Crime Rate, 1960-1975, Mass. and United States	68
4-5	Yearly Percent Change in Seriousness Scale Crime Rates, 1960-1975, Mass. and U.S.	69
4-6	Murder Rate, 1960-1975, Mass. and U.S.	70
4-7	Forcible Rape Rates, 1960-1975, Mass. & U.S.	71

<u>NUMBER</u>		<u>PAGE</u>
4-8	Aggravated Assault Rates, 1960-1975, Mass. & U.S.	72
4-9	Robbery Rates, 1960-1975, Mass. and U.S.	74
4-10	Total Percent Change in Violent Crime Rates, 1968-1975, Massachusetts	75
4-11	Burglary Rates, 1960-1975, Mass. & U.S.	76
4-12	Larceny Rates, Mass. & U.S., \$50 and over, 1960-1972, All larceny, 1973-1975	78
4-13	Motor Vehicle Theft Rates, 1960-1975, Mass. and U.S.	79
4-14	Total Percent Change in Property Crime Rates, 1968-1975, Mass.	80
4-15	Crime Trends 1974-1975, Urban and Suburban U.S.	82
4-16	Total Index Crime Rates, 1966-1975, U.S. Suburban and Nonsuburban Cities Excluding Core Cities	83

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Responsibility for errors and other inadequacies of this paper remains that of the primary authors.

## Chapter One INTRODUCTION

### A. Purpose and Content of the Report

The purpose of this report is to compile and interpret existing crime statistics for recent years in Massachusetts. The primary sources of crime data are the F.B.I.'s Uniform Crime Reports, which are compiled annually from data reported by local law enforcement agencies. This report draws heavily from the latest Uniform Crime Reports, which were published last September and which covered crimes reported during 1975. A list of the crimes reported to the F.B.I. and of their definitions is contained in the Appendix to this chapter.

The report is divided into three parts. The first part describes the volume and nature of Part I crime reported in Massachusetts in 1975. Crime is compared in various subdivisions of the state: urban and suburban areas, planning regions, counties, and high crime cities. The second part examines the crime problem in Massachusetts from the perspective of the victim, using the Federal victimization surveys as a data source rather than the F.B.I.'s Uniform Crime reports. Among the issues discussed in this chapter are crime rates as reported by victims, the extent to which crimes are reported to the police, the extent to which different groups in the population are victimized, characteristics of offenders, and the cost of crime. In the last chapter crime trends in Massachusetts from 1960 to 1975 are described and compared with national trends and the rest of the New England states. For your reference, crime data for each city and town in the Commonwealth is provided in tables in Appendix C.

### B. Interpreting UCR Data: A Cautionary Note

A detailed discussion of the reliability and validity of the F.B.I. Uniform Crime Reports is beyond the scope of this report. However, it is important to be aware of certain inadequacies of the data on which this study is based. Keep them in mind when interpreting or attempting to draw conclusions from this report. Three weaknesses of the data seem most significant.

1. The data available for inclusion in this report are incomplete for four reasons.

a. The F.B.I. only publishes crime data for individual cities and towns with populations of 10,000 or more, and even in these cities, data is only presented for the more "serious" (as defined by the FBI) crimes of murder, rape, robbery, aggravated assault, larceny, burglary and auto theft. Consequently, over 200 small communities including roughly a third of the state's population are excluded from the analysis, although the FBI did include data estimates from these towns in computing the state totals and rates that they published. Additionally, patterns of the less serious offenses, which may constitute as much as 80 percent of the crime reported in the state, must go unexamined, because the FBI does not collect data on these offenses. Metropolitan Boston and other large urban areas tend to be well represented here, but less populous areas, especially

in the western part of the state are almost totally absent.

b. Not all communities participate in the UCR program. Reporting UCR statistics to the FBI is not mandatory. Even some of the larger cities in the state do not report. While there are relatively few large, non-reporting communities, if several are concentrated in one area, conclusions for that area are tenuous. The non-reporting towns are listed at the beginning of Appendix D, which contains statistics for cities and towns.

c. The FBI data only include offenses reported to the police. It is well-documented that the actual amount of crime is greater than that reported to the police in any locality. The degree of under-reporting is related to the nature of the offense, the socioeconomic composition of the community and the community's perception of the police. Chapter Three discusses this problem in more detail.

d. The reporting of UCR data has not been thoroughly audited in Massachusetts. As our new state uniform crime reporting project develops, data auditing, as well as an improved reporting rate, will be one of its primary objectives. The techniques developed for this report when applied to improved data should yield more interesting and reliable results.

2. Recording procedures vary from place to place, as do definitions of the individual Index crimes. Data are collected by local police departments and law enforcement agencies and cannot be considered to have been consistent over time. The FBI has attempted to alleviate this problem by publishing a handbook on how to prepare UCR reports, but the extent to which the attempt has been successful is unknown. The newly established Massachusetts crime reporting project should have a significant positive impact on this problem. They are sending field workers out to each contributing city and town in an effort to insure that definitions of crimes are understood and correct reporting procedures are followed.

3. UCR rates can be misleading in some instances. The rates are computed by dividing the number of crimes by the total population and multiplying by 100,000. However, not all individuals are "at risk" for all crimes. For example, only automobile owners are at risk for the crime of auto theft.

### C. Demographic and Socioeconomic Data: A Further Caveat

One of the purposes of this report is to interpret what is happening vis a vis crime in Massachusetts, why it is happening and what we expect to happen in the future. In order to make accurate interpretations and predictions we must begin with data that are timely, accurate and meaningful. In the case of demographic and socioeconomic data available this is a serious problem.

1. Federal Census Data-1970: Except for the 1975 population figures, all of the demographic and socioeconomic data used in this report were obtained from the 1970 federal census. The problem with the census figures for 1970 is the validity of using them to analyze crime statistics from later years. The reliability (accuracy) of the 1970 crime data is quite acceptable. However, characteristics of the population change from year to year and the further away from 1970 we get the less reliance we can place on the ability of the 1970 census data to describe the current demographic situation. We would like to show that crime rates vary in relation to changes in particular demographic or socioeconomic characteristics. However, by being forced to use 1970 demographic data to analyze annual UCR data we are able to see changes in crime rates but are unable to observe the concurrent changes in important demographic and socioeconomic characteristics. We are forced into assuming that these characteristics are static from year to year. There is a critical need for more timely information about demographic and socioeconomic conditions in Massachusetts cities and towns. The census data may be adequate at the federal level where "macro" scale decisions are made about the allocation of resources but at the state level, information needs to be more current, more consistent and should be gathered at the community (and even neighborhood) level. Decisions based on inaccurate or inadequate information, regardless of the analytical expertise applied, will produce less desirable results.

2. The 1975 state census was directed by the Office of the Secretary of State. Each city and town was required to perform its own census for which it would be reimbursed by the state. It is likely that the methodologies employed by the various cities vary. The state reports that they are confident that the 1975 figures are much better than those obtained during the previous state census in 1971, a notably poor census. For most counties, the state census figures are almost the same as the Bureau of the Census' 1975 population estimates. (Figure 1-1). Unfortunately, much of the information gathered by the cities and towns has not been keypunched because of lack of funds. The only information available to us from the 1975 state census was updated population figures. Age, sex, occupation and income information has not been processed and it seems unlikely that it will be.

#### D. The Seriousness Scale

One of the frequently noted weaknesses of the crime index is that it gives equal weight to all crimes represented. Yet, subjectively, increases in murder and rape are of much greater concern than increases in larceny or auto theft. Further, the more serious crimes place greater demands on the resources of the criminal justice system than do the relatively minor crimes. From a planning perspective, an index which reflects the seriousness, as well as the number of crimes, should aid in the rational allocation of scarce resources. We have used such an index in several chapters of this report.

FIGURE 1-1: COMPARISON OF 1975 STATE CENSUS AND FEDERAL BUREAU OF THE CENSUS POPULATION ESTIMATES

County	March 1 1975 State Census	July 1 1975 U.S. Census	% diff. (U.S. - State)
Massachusetts State	5,789,478	5,812,489	0.40%
Barnstable	126,481	127,932	1.15
Berkshire	148,069	148,969	.61
Bristol	461,852	463,813	.42
Dukes	7,951	8,033	1.03
Essex	631,627	631,182	-.07
Franklin	63,420	63,532	.18
Hampden	461,659	463,804	.46
Hampshire	122,729	133,600	8.86
Middlesex	1,397,729	1,398,987	.10
Nantucket	5,559	5,660	1.82
Norfolk	620,346	619,994	-.06
Plymouth	377,500	379,778	.60
Suffolk	724,703	722,794	-.26
Worcester	640,058	648,095	1.26



While there is not a single, generally accepted seriousness scale available, there has been sufficient work done to permit the formulation of a rough scale. The scale used in the report rates the Part I crimes as follows: murder=12, rape=11, aggravated assault=10, robbery=9, burglary=4, auto theft=3, larceny=1.<sup>1</sup> Figures referred to in this report as "seriousness scale scores" refer to the product of crime rates per 100,000 population and these weights. These weights are somewhat arbitrary and the reader is urged to recognize that varying the weights might well change some of the results based on the seriousness scale.

#### E. Victimization Data:

In recent years the Law Enforcement Assistance Administration has been conducting victimization surveys, both within certain major cities and on a national scale. Starting with the 1974 survey, LEAA is providing the SAC's in the 10 largest states with the results for their states. Information based on these studies for Massachusetts for 1974 and 1975 is presented in Chapter Three. The strengths and weaknesses of this data source are discussed at the beginning of that chapter.

#### F. Why do the Study?

After such a sobering denouncement of the quality of the crime and demographic data it would be reasonable for the reader to ask: "If the data are so bad why bother to do the study at all?" One answer is that something is better than nothing. As long as one understands the extreme limitations imposed by the quality of the data, it makes sense to make at least guarded use of the analysis. More importantly, anticipating improvements in the quality of data, we are developing methods of handling the data which will create the kind of information administrators, planners, and developers can use to make better informed decisions. And, in the process of improving our techniques of analysis perhaps we can spur support for collecting better quality data.

There are some improvements that are already taking place. The state UCR project is beginning operation. This project promises to improve both participation in the UCR program and the reliability of the information collected. And, the Federal government has decided to perform a national census every five years starting in 1980.

As it now stands there is no comprehensive state data collection plan. Regions used by one state agency rarely coincide with those employed by other state agencies and for this and other reasons information collected by one agency is often of limited use to other agencies. Collection of more data is not necessarily the answer. More attention needs to be given to the interdependency of agencies and the benefits that can be derived from cooperation. When data is collected on a regular basis some consideration should be given to

<sup>1</sup>This scale is based on the work of Peter H. Rossi, Emily Waite, Christine E. Bose and Richard E. Beck, "The Seriousness of Crimes: Narrative Structure & Individual Differences, American Sociological Review 39:224-237 (April 1974) pp. 228-9 and Thorsten Sellin and Marvin E. Wolfgang, The Measurement of Delinquency, John Wiley & Sons, 1964.

whether or not it is being collected in a way that will maximize its usefulness to other agencies that might find it valuable.

The Committee on Criminal Justice is a good example of this interdependency with other state agencies. The only current data in our report was obtained through two state agencies, the Office of the Secretary of State and the Welfare Department. At the same time we have shared our crime statistics with the Welfare Department, CETA, the Youth Activities Commission and numerous other agencies within and outside the criminal justice system.

As the availability and quality of data improves so will our ability to provide interpretations and predictions that are accurate and meaningful.



APPENDIX A

DEFINITIONS OF PART I OFFENSES<sup>1</sup>

Offenses in Uniform Crime Reports are divided into two groupings designated as Part I and Part II offenses. Crime Index offenses are included among the Part I offenses. Offense and arrest information is reported for Part II offenses.

The Part I offenses are as follows:

1. Criminal Homicide

a) Murder and non-negligent manslaughter: All willful felonious homicides as distinguished from deaths caused by negligence. Excludes attempts to kill, assaults to kill, suicides, accidental deaths, or justifiable homicides. Justifiable homicides are limited to:

1. the killing of a person by a law enforcement officer in the line of duty; and
2. the killing of a person in the act of committing a felony by a private citizen.

2. Forcible Rape

The carnal knowledge of a female, forcibly and against her will in the categories of rape by force, assault to rape and attempted rape. Excludes statutory offenses (no force used - victim under age of consent).

3. Robbery

Stealing or taking anything of value from the care, custody, or control of a person by force or violence or by putting in fear, such as strong-arm robbery, stick-ups, armed robbery, assaults to rob and attempts to rob.

4. Aggravated Assault

Assault with intent to kill or for the purpose of inflicting severe bodily injury by shooting, cutting, stabbing, maiming, poisoning, scaling, or by the use of acids, explosives or other means. Excludes simple assaults.

<sup>1</sup>Source: 1973 Uniform Crime Reports, p. 55.

5. Burglary - breaking and entering

Burglary, housebreaking, safecracking or any breaking or unlawful entry of a structure with the intent to commit a felony or a theft. Includes attempted forcible entry.

6. Larceny - theft (except auto theft)

The unlawful taking, carrying, leading or riding away of property from the possession or constructive possession of another. Thefts of bicycles, automobile accessories, shoplifting, pocket-picking or any stealing of property or article which is not taken by force and violence or by fraud. Excludes embezzlement, "con" games, forgery, worthless checks, etc.

7. Auto Theft

Unlawful taking or stealing or attempted theft of a motor vehicle. A motor vehicle is a self-propelled vehicle that travels on the surface but no on rails. Specifically excluded from this category are motor boats, construction equipment, airplanes and farming equipment.

## Chapter Two THE MASSACHUSETTS CRIME PROBLEM IN 1975

### A. Introduction

In 1975 Massachusetts' index crime rate was approximately 30 percent higher than the rate for the nation. When the seriousness scale is used (see Chapter One, Section D) to make the same comparison, Massachusetts' crime rate is closer to the nation's, but still higher. It becomes clear why this is so when Massachusetts' and the nation's crime rates are compared individually. Of those crimes weighted most heavily in the seriousness scale, murder, rape, aggravated assault, and robbery, Massachusetts had a substantially lower crime rate than did the nation, except for robbery. Massachusetts' robbery rate slightly exceeded the nation's. (see figures 4-6 thru 4-9, pages 70-4) Massachusetts had higher burglary and auto theft rates than the nation in 1975, but a lower larceny rate. Section B of this chapter explains that two of the three crimes for which Massachusetts' rates exceed the nation's, robbery and auto theft, occurred more often in core cities than in other parts of Massachusetts in 1975. Thus, Massachusetts' relatively high rank in national crime statistics is to a large extent a problem of robbery and auto theft in core cities in its metropolitan areas.

### B. 1975 Crime in Urban and Suburban Areas

A matter of some interest in recent years has been the extent to which crime has become a suburban problem in addition to being a city problem. In an effort to examine this issue with 1975 data, cities and towns were grouped into six categories reflecting degree of urbanization as indicated by the Standard Metropolitan Statistical Areas (SMSA's) developed by the Federal government. The SMSA concept is based upon the definition of a metropolitan area as "an integrated economic and social unit with a recognized urban population nucleus of substantial size."<sup>1</sup>

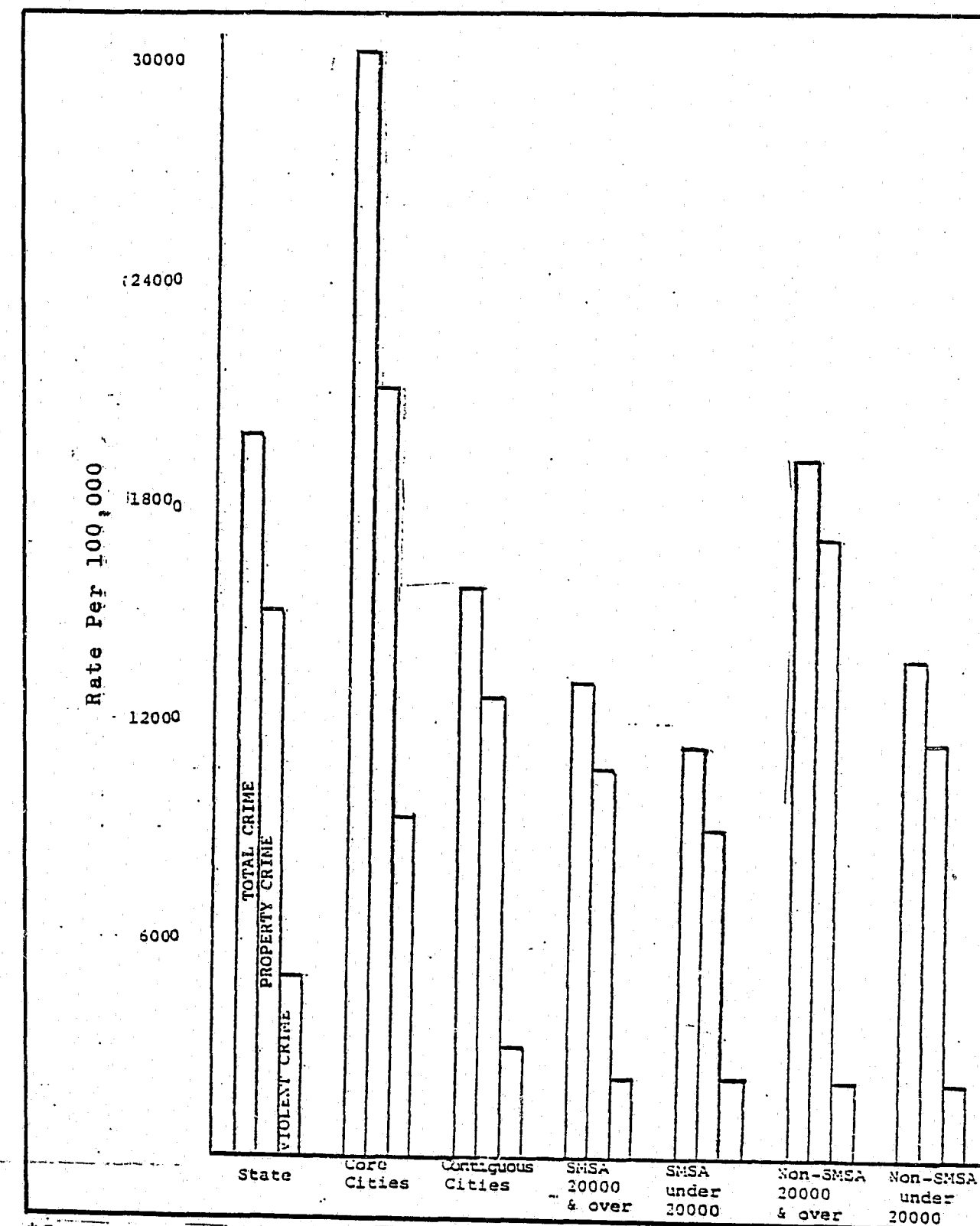
The following six categories were defined for this group of cities and towns:

1. Core Cities-the central city or cities of an SMSA
2. Contiguous Cities-large cities located near the central city
3. Other Towns within the SMSA with populations of 20,000 or over
4. Other Towns within the SMSA with populations under 20,000
5. Towns or cities not within an SMSA with populations 20,000 or over
6. Towns not within an SMSA with populations under 20,000

Thus, categories one to four include communities of various sizes within a metropolitan area. For example, Boston is the core city of the Boston SMSA (category 1). Cambridge is a large city located very near the core city (category 2). Arlington and Concord

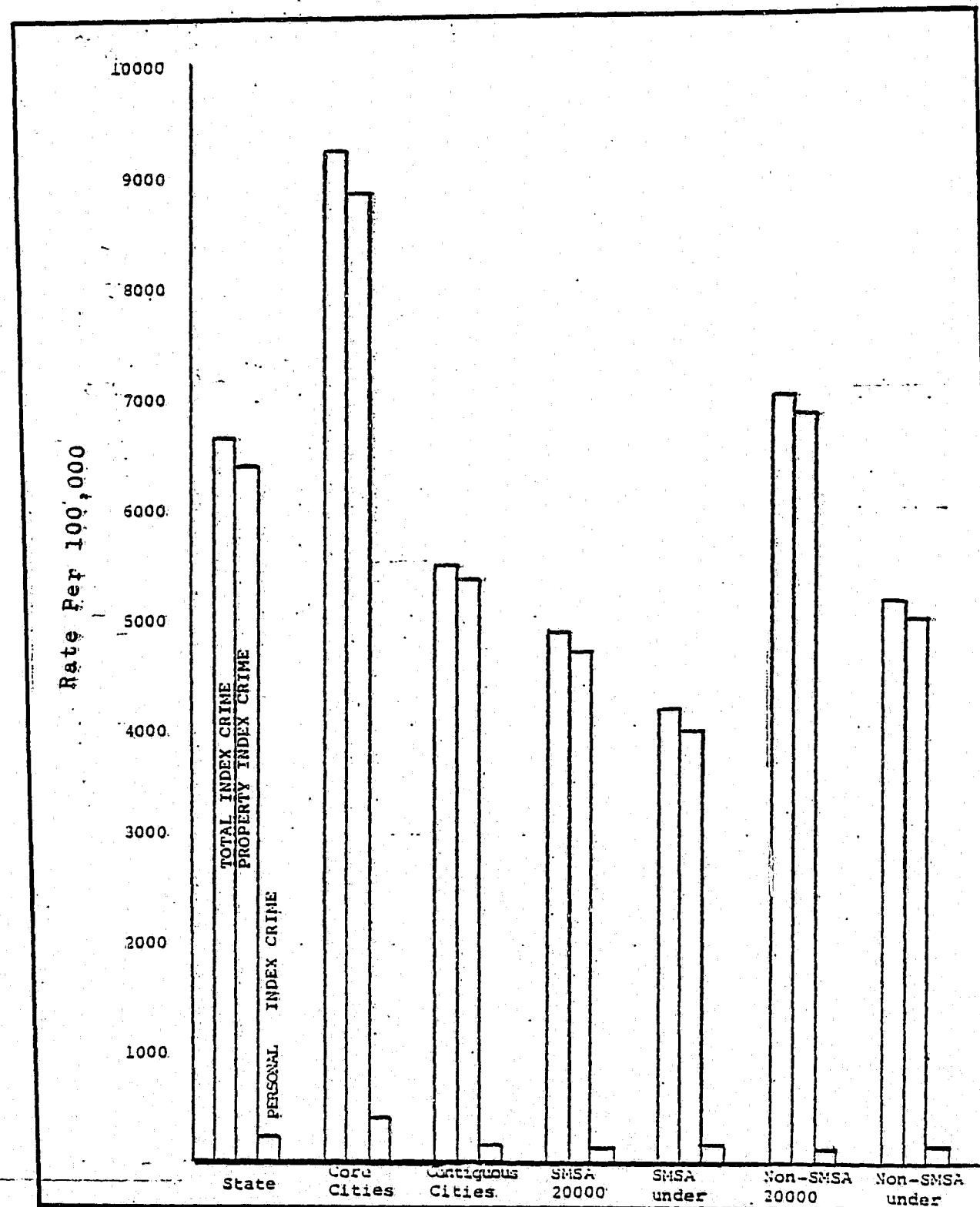
<sup>1</sup>Standard Metropolitan Statistical Areas, 1975, Revised Edition, Statistical Policy Division, Office of Management and Budget, Executive Office of the President of the United States, 1975. p. iii.

FIGURE 2-1 SERIOUSNESS SCALE SCORES\* BY Urban/Suburban Categories



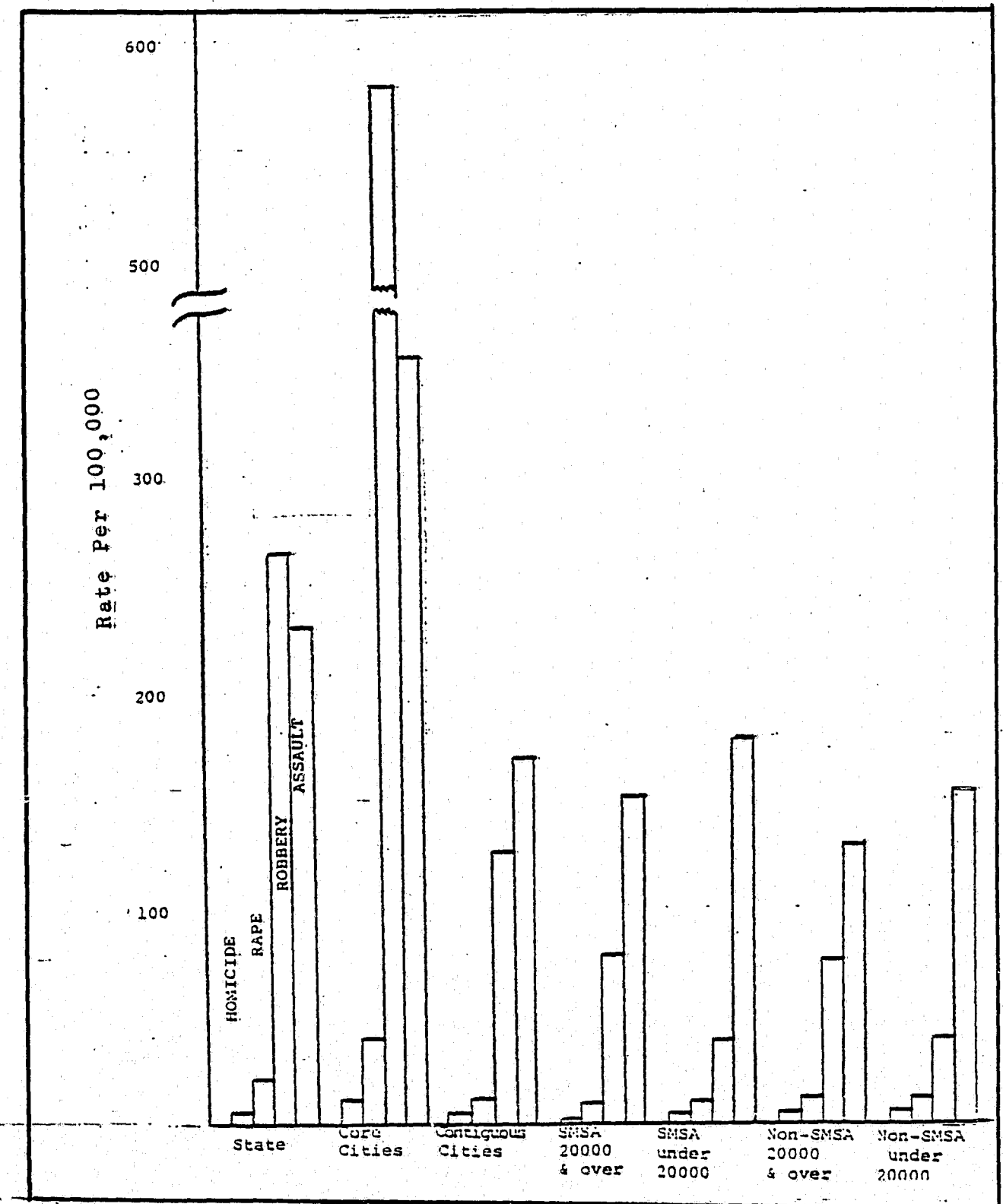
\*Seriousness scale scores weight the incidence of Part I crimes (murder, rape, aggravated assault, robbery, burglary, larceny and auto theft) by a measure of their seriousness.

FIGURE 2-2 TOTAL INDEX CRIME RATES\* BY Urban/Suburban Categories



\*Index crimes are murder, rape, aggravated assault, robbery, burglary, larceny and auto theft.

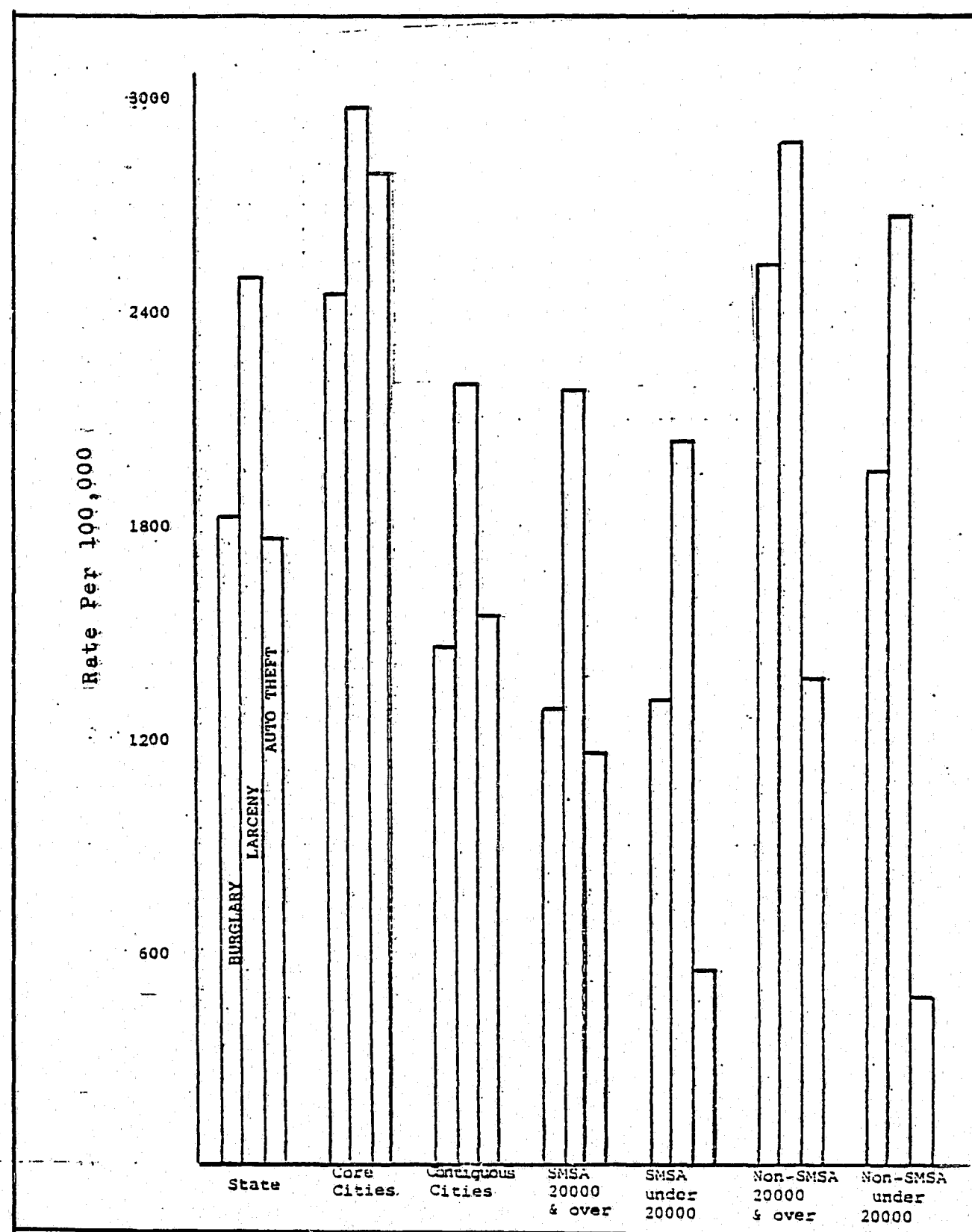
FIGURE 2-3 VIOLENT CRIME RATES\* BY Urban/Suburban Categories



\*Violent crimes rates refer to murder, rape, aggravated assault and robbery.



FIGURE 2-4 PROPERTY CRIME RATES\* BY Urban/Suburban Categories



\*Property crime rates refer to burglary, larceny and auto theft.

categories 3 and 4 respectively) are both smaller communities within the metropolitan area although they are substantially different in terms of location and population size.

On the other hand, categories 5 and 6 include cities and towns located outside the boundaries of SMSA's in the state. Category 5 includes such cities as Gloucester, Plymouth and Taunton which are somewhat isolated urban communities without metropolitan areas surrounding them. Category 6 contains small towns generally located far from urban centers. Such towns as Ipswich, Middleboro, Webster and Bourne are grouped in category 6.

Figures 2-1 to 2-4 compare crime rates in these six categories of cities and towns. It is clear that the core cities category has the most extensive crime problem. Seriousness scale scores (figure 2-1) for this group far exceed those for all others. The score for violent crime is fully three times greater than that for the next highest category. From Figure 2-3 it can be seen that only the homicide rate for core cities is in the same range as the other categories. Rape, the second most serious offense in the seriousness scale calculations, occurred at a rate three to four times greater in the core cities than in the other groups. The assault rate was at least twice the rate in the other categories. But by far the most extreme rates are found in reported robberies. The core cities robbery rate was four times the rate for contiguous cities and fifteen times the rate for category 4, outlying suburbs within SMSA's.

While property crime rates for core cities are also generally the highest, the extremes noted for violent crimes recur only in auto theft. In fact, burglary rates for non-SMSA cities are actually higher than those for core cities. And property crime in these smaller cities is more serious than in the contiguous cities within SMSAs. In figure 2-4, burglary and larceny rates in cities and towns outside SMSAs (groups 5 and 6) far exceed those for groups two to four, cities and towns within SMSAs other than core cities.

Only auto theft rates run contrary to these tendencies. The group six property crime rates are particularly notable because they indicate a more serious crime problem in small (less than 20,000) towns outside metropolitan areas than in small towns considered to be within such areas.

In summary, this data would seem to indicate that crime as a whole is more serious in major urban centers and surrounding cities than in outlying areas. Upon looking more closely, however, it becomes clear that while this is clearly the case with violent crime and auto theft, property crime is a substantial problem in non-metropolitan areas. It is important to note, however, that many of the small communities which fall into categories four and six are not included in the data which was analyzed for this report. It is therefore dangerous to draw strong conclusions from the information available.

### C. State Criminal Justice Planning Regions: Particular Crime Problems

#### 1. Region 6 - The City of Boston

Information presented in figures 2-5 to 2-8 compare crime in the seven criminal justice planning regions (see Map 2-1) and the state of Massachusetts as a whole. As might be expected, Region 6, the City of Boston, has the most severe crime problem of all the regions. The overwhelming nature of the Region 6 crime rates, in comparison to the other regions, is substantially due to the uniqueness of the region; it is the only one made up entirely of one major urban center. All of the other regions include less urbanized communities, the crime rates of which have a moderating effect upon the regional rates. For this reason, it is more profitable to consider Region 6 in comparison with other urban areas. This is done in the final section of this chapter.

#### 2. Violent Crime in Western Massachusetts

There exists considerable variation among the six regions other than Boston when various crime categories are compared. Region 1 (Western Massachusetts) has a lower total seriousness score than either Region 2 (Central Massachusetts) or Region 7 (Southeastern Massachusetts) (see figure 2-5). Region 1's scores for violent and property crime, however, indicate somewhat more violent crime and less property crime than either of the other two regions. Examination of figure 2-7 indicates that this rate of violent crime is due to the extremely high rate of assault in Western Massachusetts. This rate, while 52 percent greater than the state-wide figure, is 84 percent greater than that for Southeastern Massachusetts and 117 percent greater than the rate for Central Massachusetts.

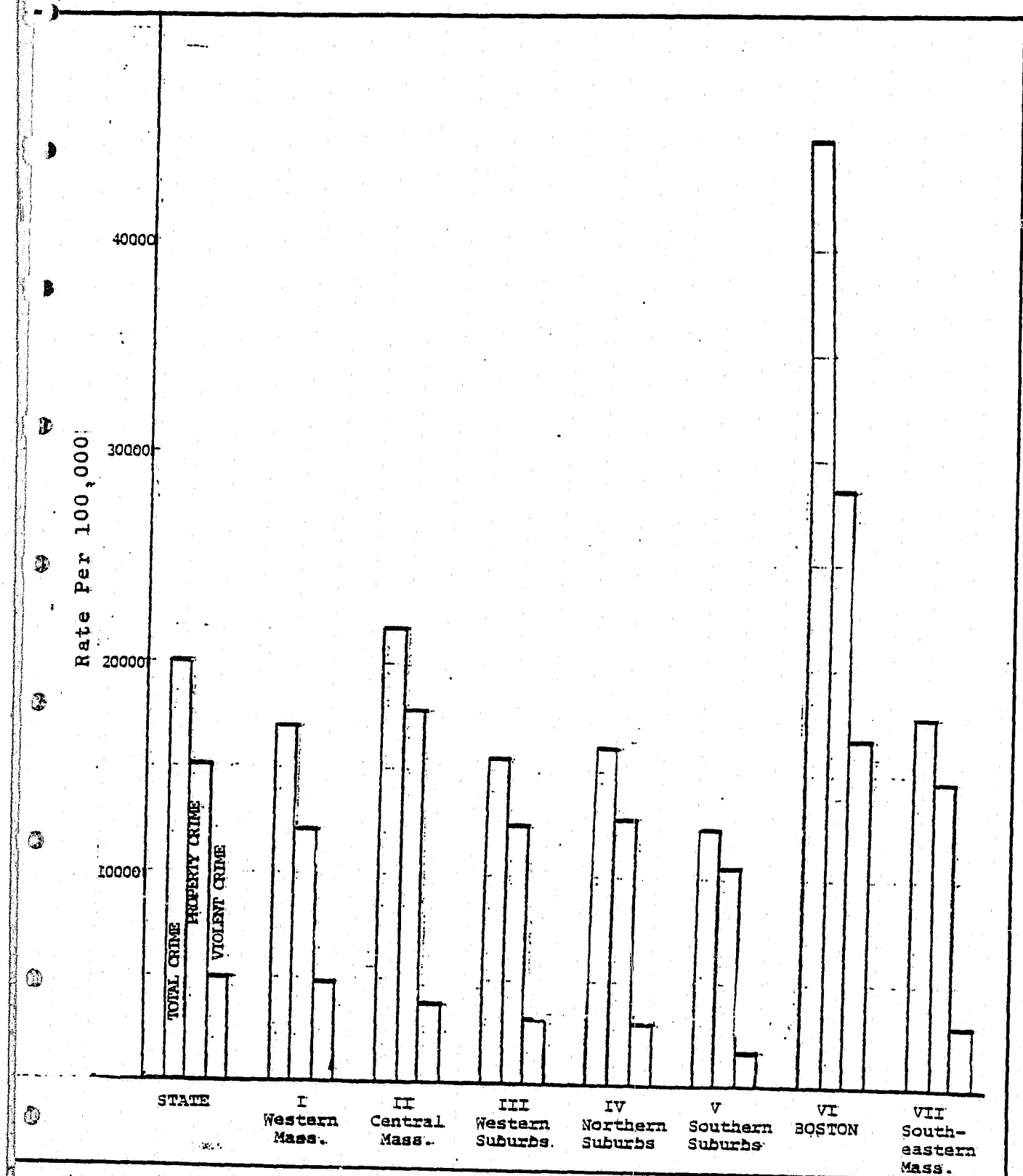
#### 3. Robbery in Regions with Large Cities

Comparing robbery rates in regions with large cities (2-Worcester, 1-Springfield and 3-Cambridge) with those of regions with cities of lesser size (4-Lynn, 5-Quincy, 7-New Bedford/Fall River) suggests the importance of city size to the severity of the robbery problem. The average rate of robbery in Regions 1, 2 and 3 (158/100,000 pop.) is 41 percent greater than that for Regions 4, 5 and 7 (93/100,000 pop.). In addition, the rate for the Worcester region (#2) is 33 percent higher than that of Region 3, the region with the next highest rate. Worcester is the state's second largest city.

#### 4. Crime in Region 5-Quincy and Southern Suburbs of Boston

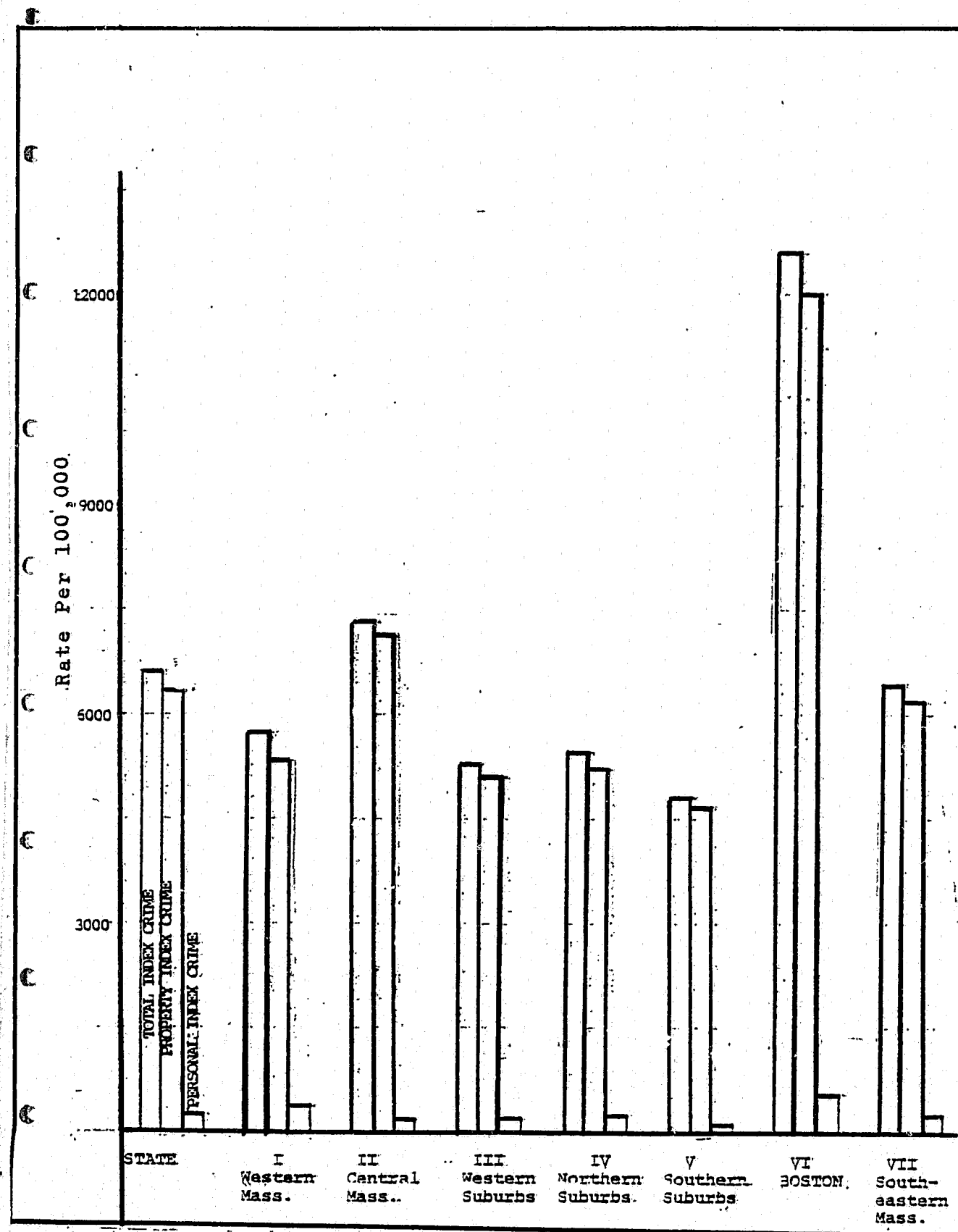
Region 5, the region just to the south of Boston, has the least serious crime problem, (as indicated by the seriousness scale scores (figure 2-5) of all the regions. Violent crime rates (figure 2-7) are extremely low compared to rates for the other regions. Property crime rates (figure 2-8) are not markedly lower than the other regions, however. Larceny rates, in fact, rank above those for the regions comprised of the other Boston suburbs, Regions 3 and 4. For burglary and auto theft, the two more serious property crimes, Region 5 has

FIGURE 2-5 SERIOUSNESS SCALE SCORES\* BY Criminal Justice Planning Regions



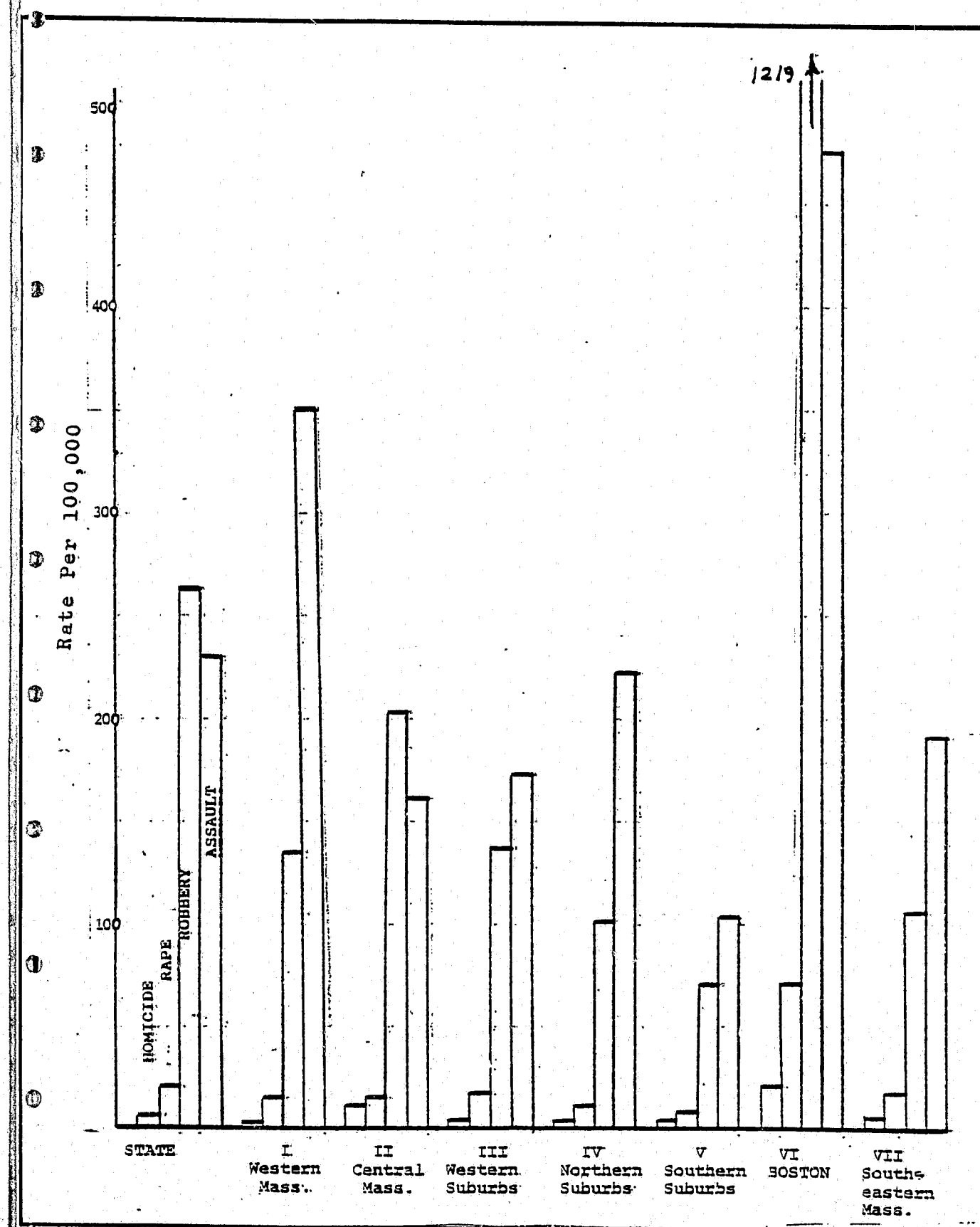
\*Seriousness scale scores weight the incidence of Part I crimes (murder, rape, aggravated assault, robbery, burglary, larceny and auto theft) by a measure of their seriousness.

FIGURE 2-6 TOTAL INDEX CRIME RATES\* BY  
Criminal Justice Planning Regions



\*Index crimes are murder, rape, aggravated assault, robbery, burglary, larceny and auto theft.

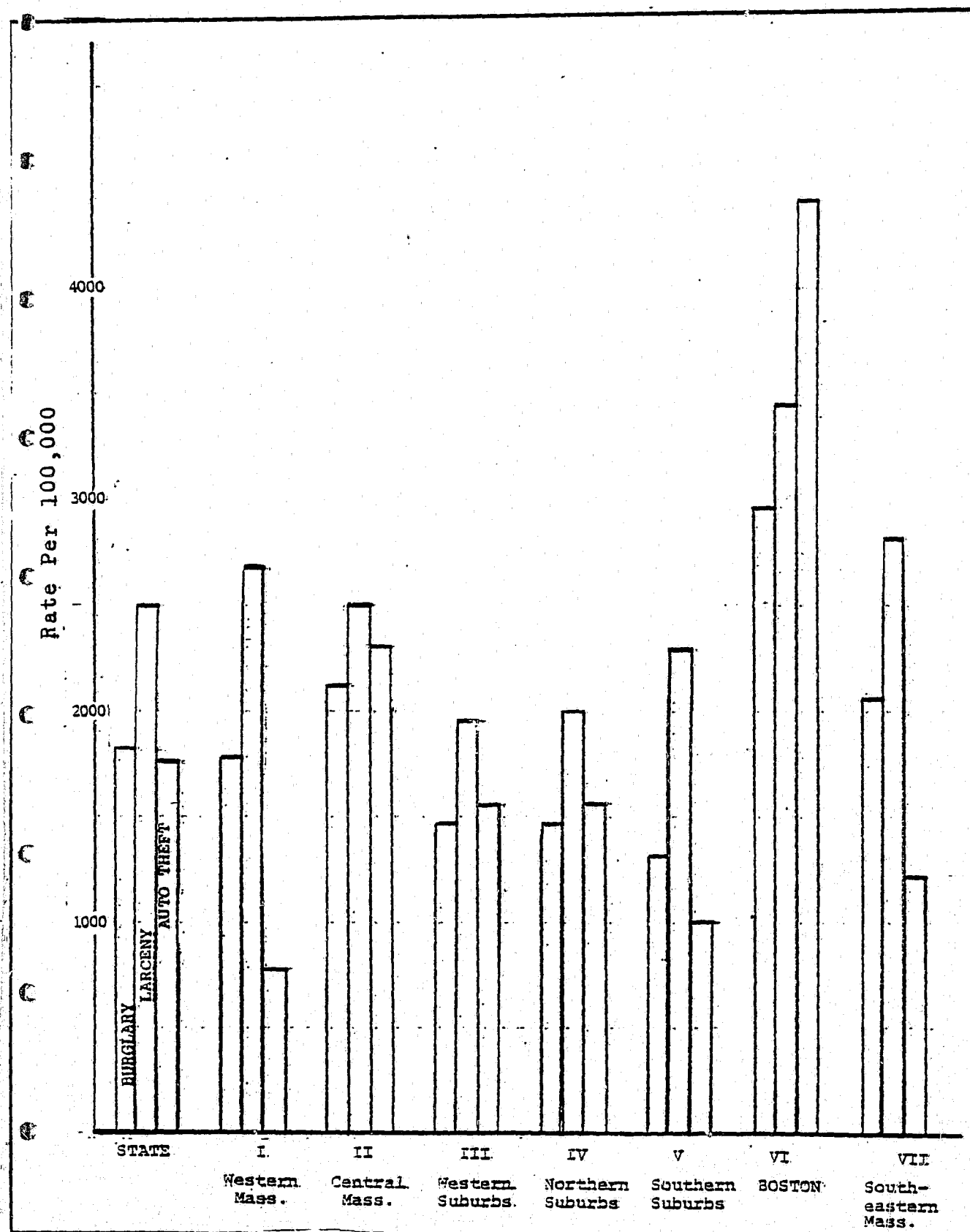
FIGURE 2-7 VIOLENT CRIME RATES\* BY  
Criminal Justice Planning Regions



\*Violent crimes rates refer to murder, rape, aggravated assault and robbery.



FIGURE 2-8 PROPERTY CRIME RATES\*BY  
Criminal Justice Planning Regions



\*Property crime rates refer to burglary, larceny and auto theft.

lower rates than most other regions. Burglary rates are the state's lowest and auto theft rates are lower only in Western Massachusetts (Region 1).

Two of the six regions other than Boston have particular serious crime problems. Crime in these regions, Central (#2) and Southeast (#7) is examined more closely in the next section.

#### D. Variation in Crime within Regions

In this section, the two regions with the most serious crime problems (with the exception of Boston) are looked at from the point of view of variation among areas within the regions. It is important to consider such variation because of the large size of the regions and the resultant inclusion of diverse types of communities. It is useful to determine the extent to which crime of a particular sort is localized in areas smaller than planning regions including thirty to fifty towns. This section attempts to examine Regions 2 and 7 in this way. The data for such an analysis of other regions is present in the appendix.

##### 1. Region 2-Central Massachusetts

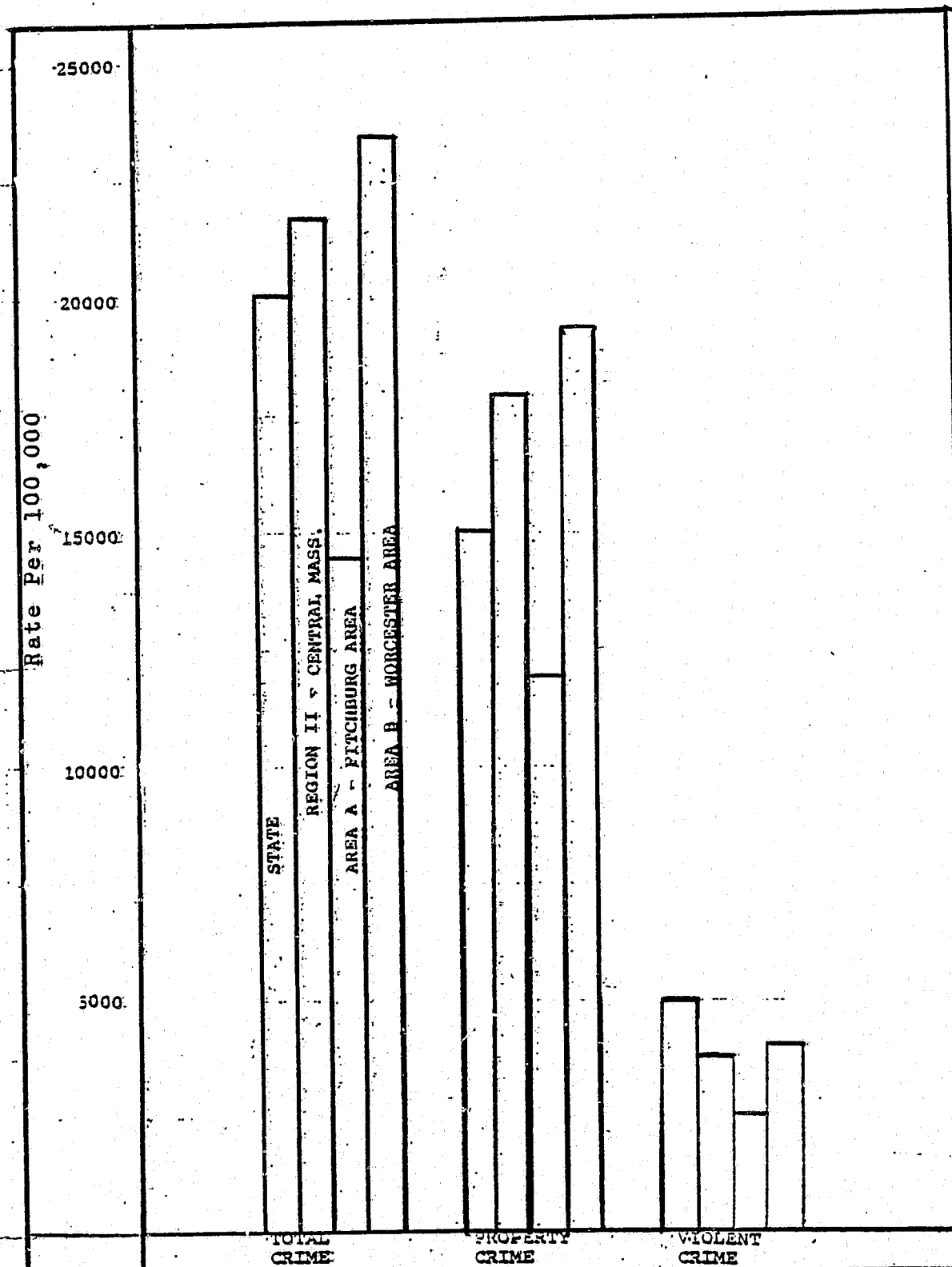
The central region of the state includes two planning areas which divide sixty-one communities into a northern area around the city of Fitchburg and a southern area around Worcester. Before comparing the crime data for these areas it is important to note certain problems with the data. Of the twenty towns in the northern area (Area A) only three supplied UCR data for 1975. These three towns (Fitchburg, Leominster and Harvard) make up 42 percent of the population of Area A. In area B, the southern area, in contrast, thirteen of forty-one towns reported statistics for the year. These towns constitute 72 percent of the area's population. Thus, crime in Area A may not be as truly reflected by the figures available as crime in Area B.

The seriousness of crime in Region 2 is almost entirely related to the seriousness of crime in the Worcester area, Area B. (fig.2-9) Property crime seriousness scores for the region as a whole and for Area B in particular are substantially greater than the statewide score. Interestingly, however, violent crime seriousness is substantially lower than the state's score. Area A scores are far lower than the state and Area B in all three scales.

Rates for violent crimes are considerably less in Area A than in Area B (figure 2-11). This is particularly true of robbery for which the Worcester area has a rate 250 percent greater than that of the Fitchburg area. With the exception of homicide, however, the over-all Region 2 violent crime rates are quite a bit lower than the statewide rates. Homicide, however, is a crime with particularly acute fluctuations and low rates of incidence in most communities.

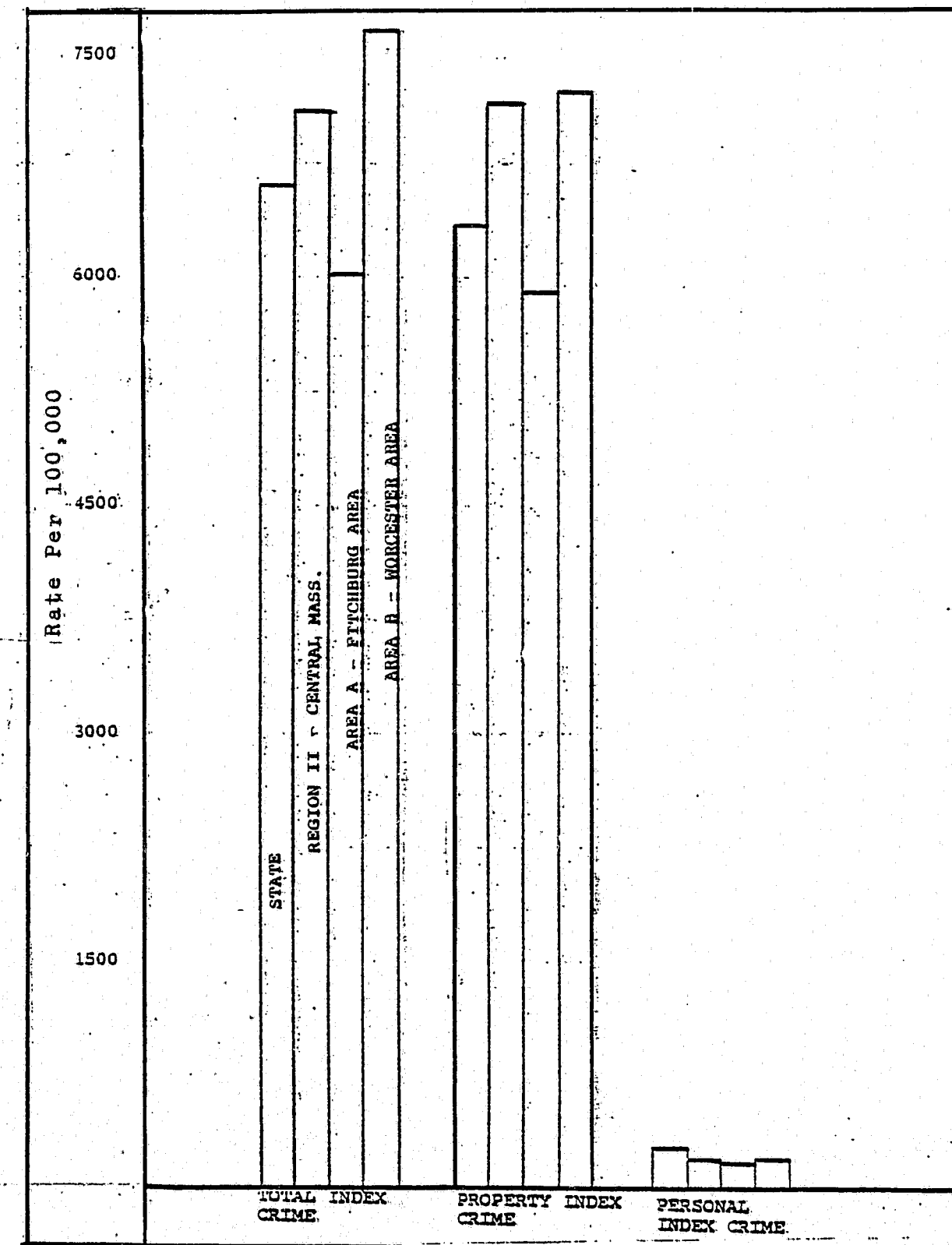
Property crimes account for more of the seriousness of crime in Region 2 as compared to the state as a whole (figure 2-12). Here, however, the area differences continue. With the exception of larceny

FIGURE 2-9 SERIOUSNESS SCALE SCORES BY  
Region II Planning Areas



\*Seriousness scale scores weight the incidence of Part I crimes (murder, rape, aggravated assault, robbery, burglary, larceny and auto theft) by a measure of their seriousness.

FIGURE 2-10 TOTAL INDEX CRIME RATES BY  
Region II Planning Areas



\*Index crimes are murder, rape, aggravated assault, robbery, burglary, larceny and auto theft.

FIGURE 2-11 VIOLENT CRIME RATES BY  
Region II Planning Areas

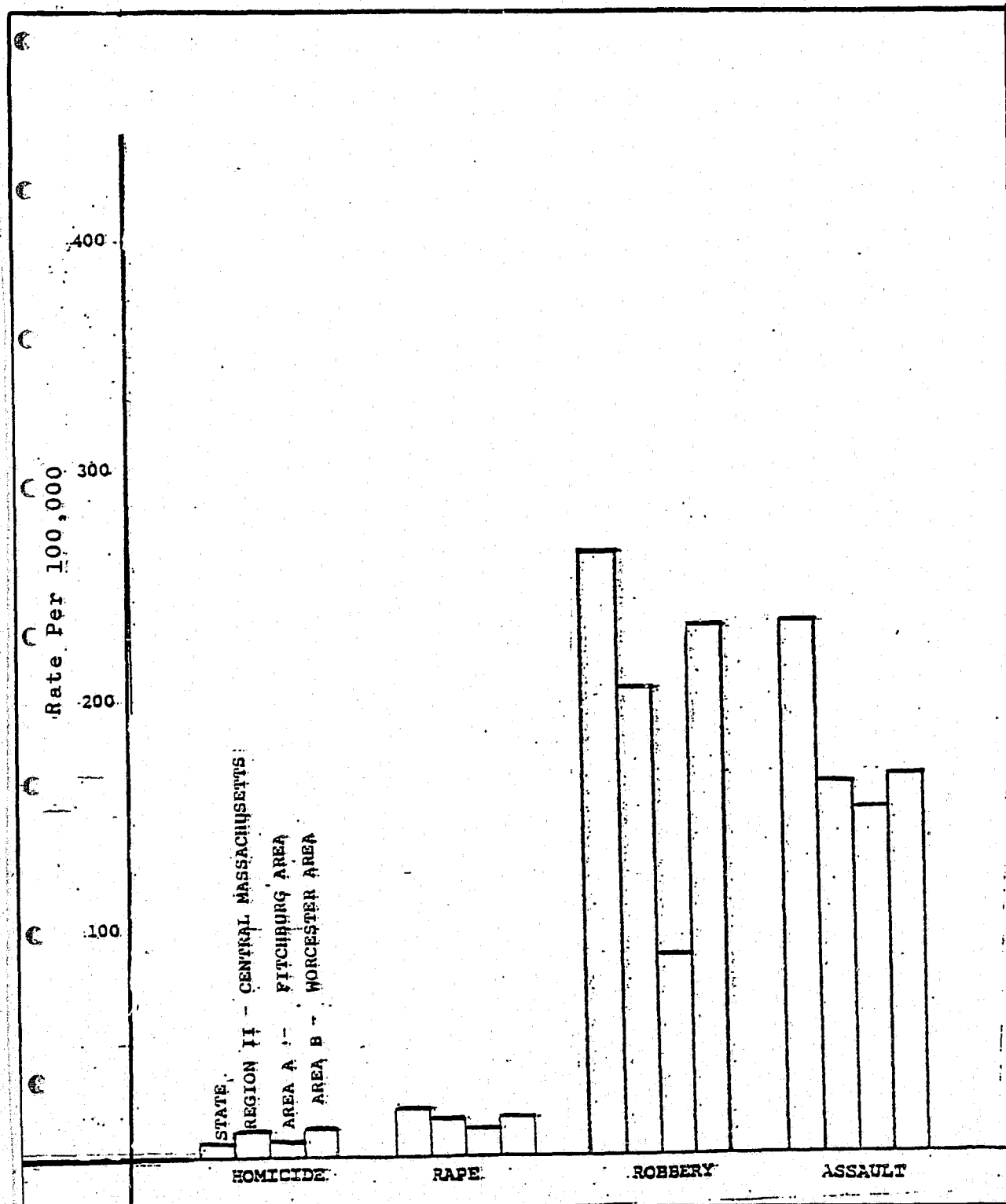


FIGURE 2-12 PROPERTY CRIME RATES BY  
Region II Planning Areas

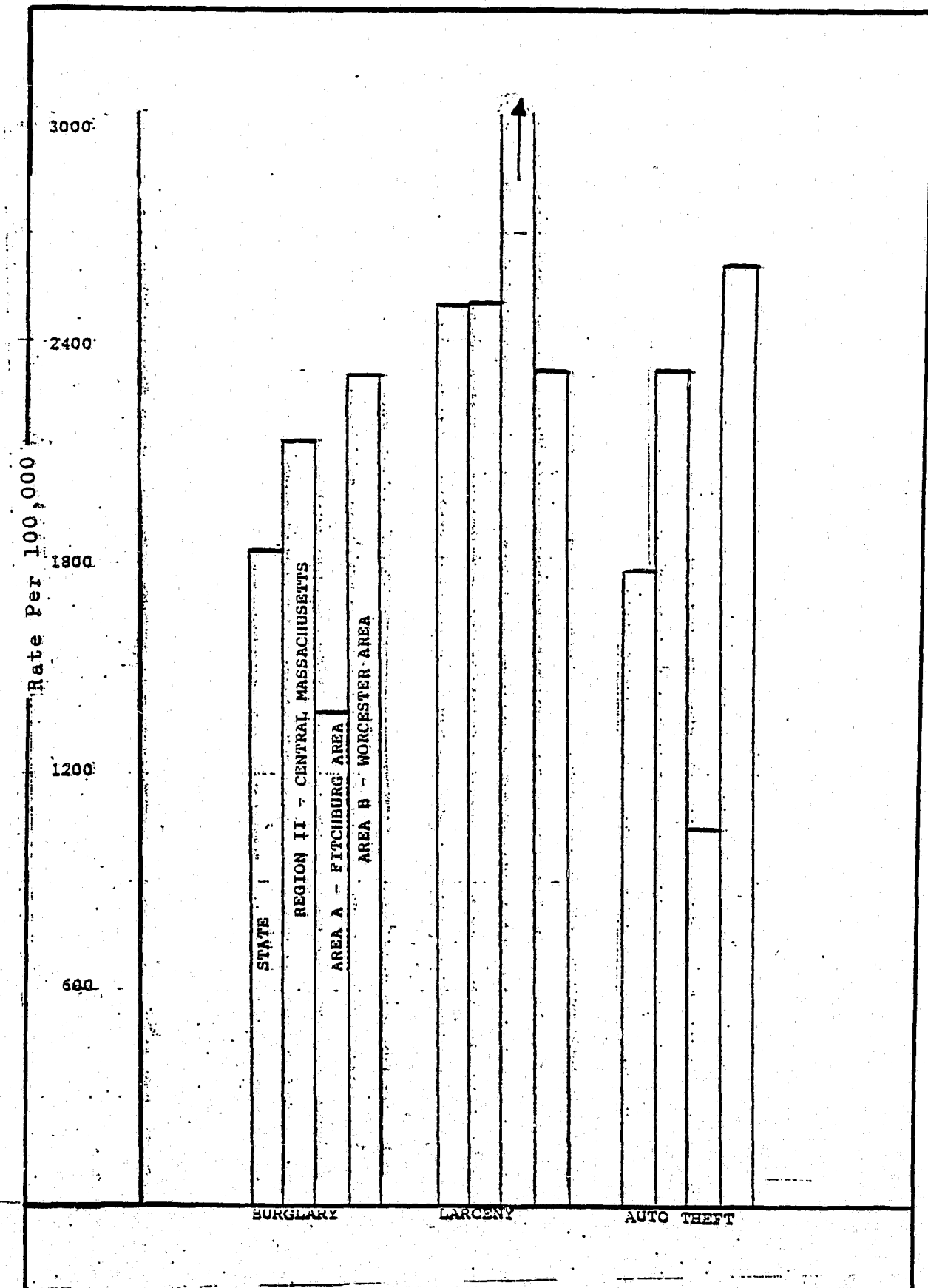
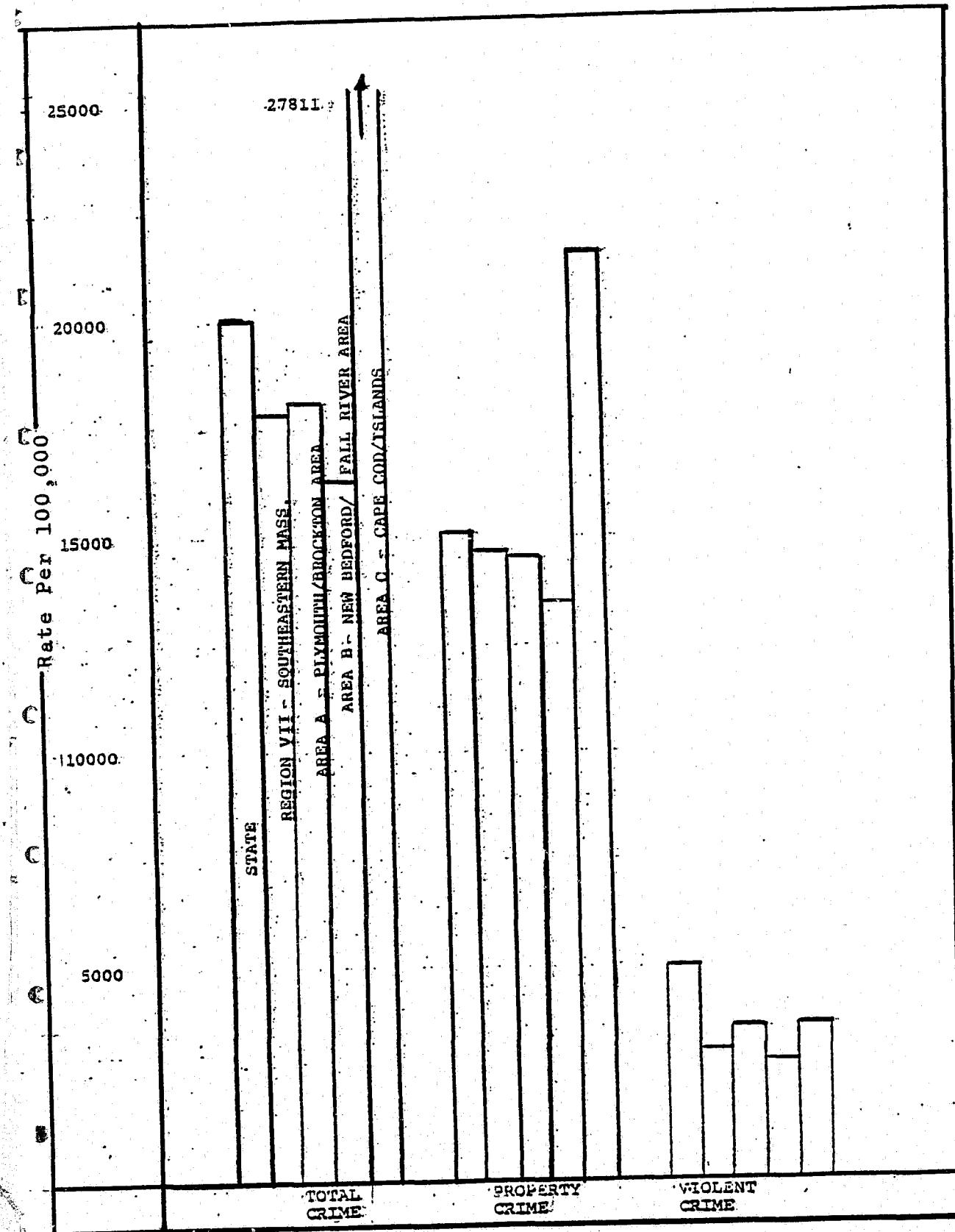


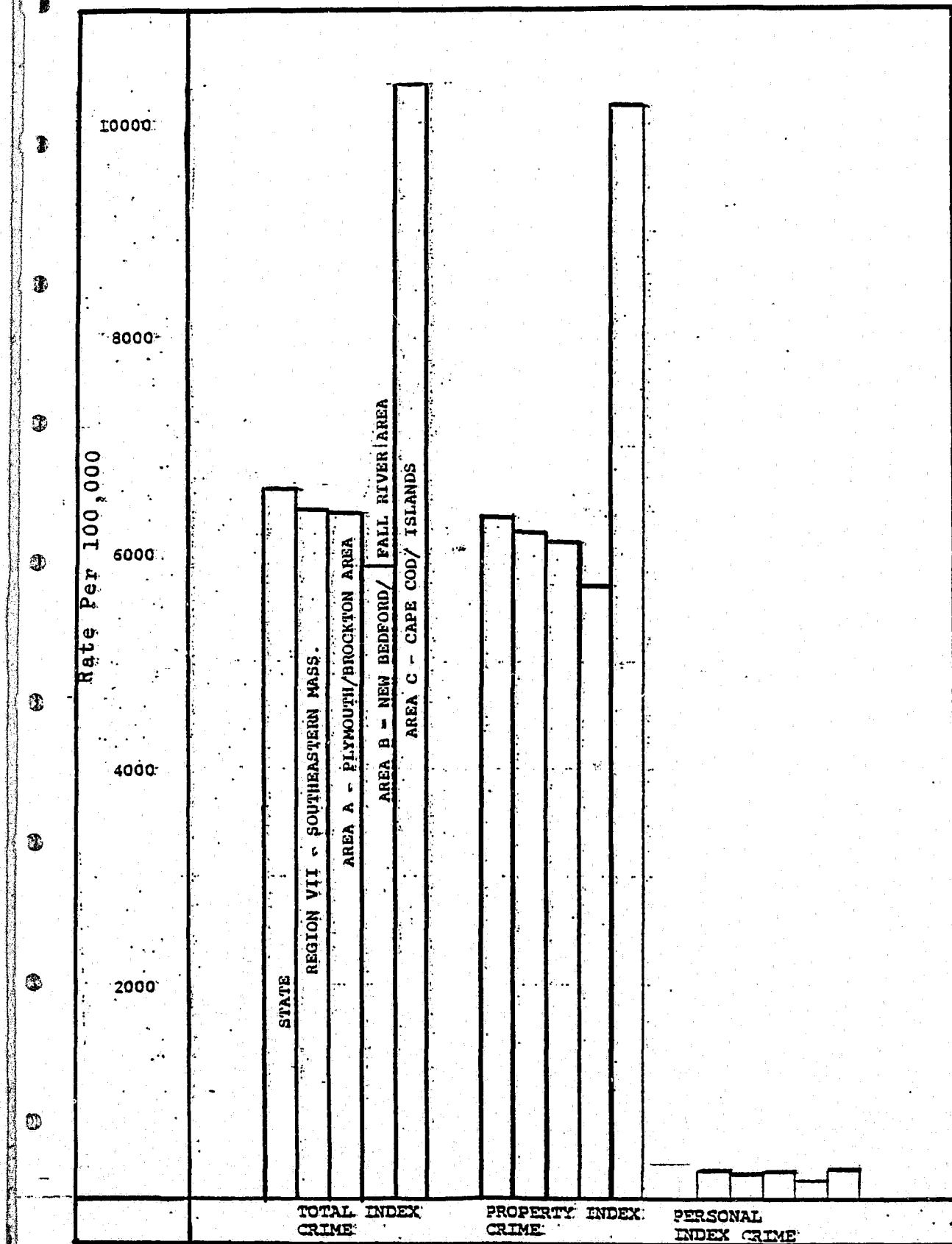


FIGURE 2-13 SERIOUSNESS SCALE SCORES BY  
Region VII Planning Areas



\*Seriousness scale scores weight the incidence of Part I crimes (murder, rape, aggravated assault, robbery, burglary, larceny and auto theft) by a measure of their seriousness.

FIGURE 2-14 TOTAL INDEX CRIME RATES BY  
Region VII Planning Areas



\*Index crimes are murder, rape, aggravated assault, robbery, burglary, larceny and auto theft.

FIGURE 2-15 VIOLENT CRIME RATES BY  
Region VII Planning Areas

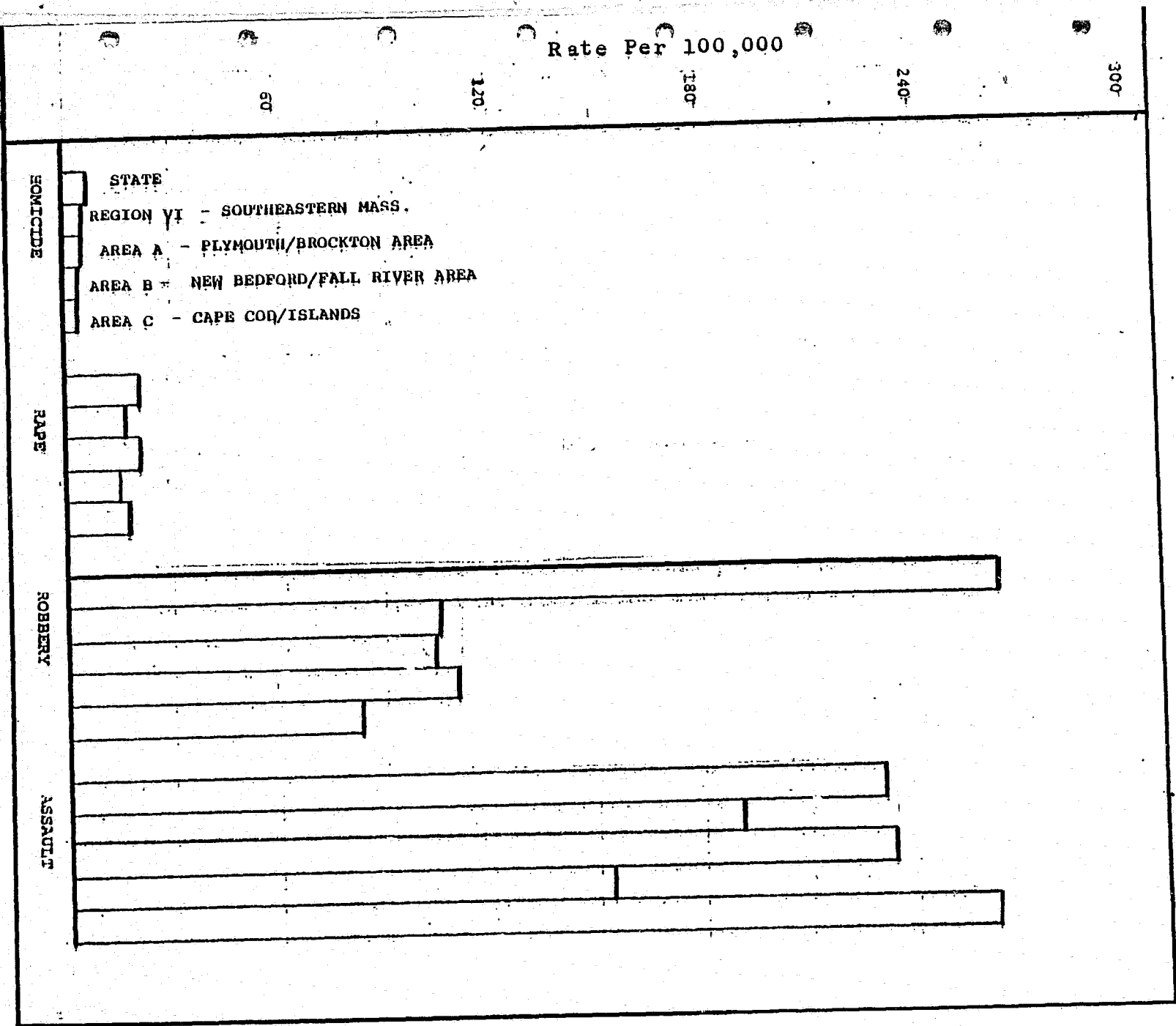
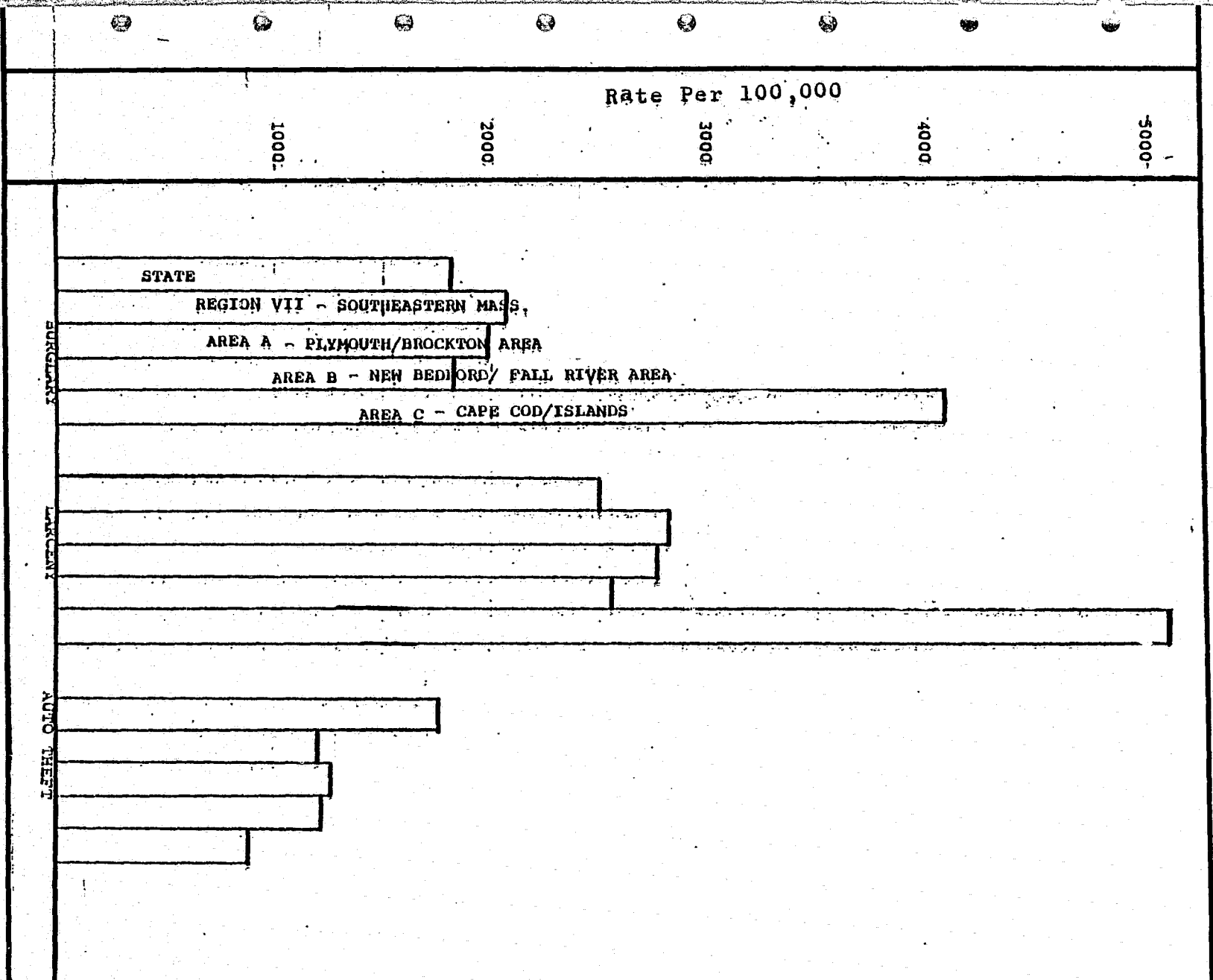


FIGURE 2-16 PROPERTY CRIME RATES BY  
Region VII Planning Areas



Area B far exceeds Area A's property crime rates. It is possible that the larceny figure may be greatly influenced by the problem cited above regarding the data for Area A. Even so, the larceny rate in A is extremely high as compared to the other Area B. The dominance of the Area B figures is reflected in the extent to which the Regional larceny rate is moderated by the lower Area B rate.

Rates for the two more serious property crimes, burglary and auto theft, are much greater in the Worcester area than in the Fitchburg area or the state as a whole. The Area B burglary rate is more than 67 percent greater than that for area A while about 26 percent greater than the state rate. The auto theft rate in Area B is 150 percent higher than that of Area A. The Worcester area rate is 133 percent greater than the statewide auto theft rate.

From this information, it is clear that while Region 2 has the state's second most serious crime problem, this is largely the result of the influence of crime in the city of Worcester and its surrounding area.

## 2. Region 7

Region 7, Southeastern Massachusetts includes three planning areas: Plymouth/Brockton, New Bedford/Fall River, and Cape Cod. The third area, Cape Cod (Area C), has a total seriousness scale score which is second only to the city of Boston in the entire state (fg. 2-13). This statistic must be interpreted with caution because once again, the data does not tell the whole story. Suggesting the validity of this seriousness score are the extreme rates for the crimes of assault, burglary and larceny - crimes which would be expected to occur frequently in a resort area with a great influx of vacationers in one season and a large number of unoccupied dwellings in another. It is just such a seasonal population change which makes these rates problematic. While most crime might be expected to occur in the summer when the population is greatest, rates are calculated on the basis of the stable population because this is the known figure. This has the effect of inflating the rates per 100,000 population. There is also a problem of non-reporting communities for this area, as well.

Clearly, with the exception of Area C, Region 7 has a considerably less serious crime problem than the state as a whole (fg. 2-13). Some of the rates for crimes in the other two areas of the region show particular problems, however. Violent crime Area A (Plymouth/Brockton) is on a par, numerically, with violent crime in Area C. Individual violent crime rates (fg. 2-15) show that in Area C the size of the seriousness scale score is mostly caused by the assault rate. More serious violent crime rates, homicide and rape, are higher in Area A, however. Area B, with the two major cities of New Bedford and Fall River, has a rate of robbery which is particularly high for the region, although it is less than half the size of the statewide rate.

Rates of property crime (fg. 2-16) show the influence of the Area C rates on the regional rates. It is notable however that for burglary and larceny, the rates for the other two areas also exceed the state. Auto theft, however, is substantially lower in Region 7

than in the state and this is particularly so in Area C.

Analysis of these two regions indicates the possible use of local data to more explicitly define the extent and location of crime problems in Massachusetts. In addition, such analysis suggests the need for complete data to fully explicate the dimensions of the problem.

## E. Counties

A substantial portion of the criminal justice system in Massachusetts is administered at the county government level. For this reason, much of the data which is available within the system is county-based. This section presents information on the four counties with the most serious crime problems for purposes of illustration. Please refer to the appendix for information on additional counties.

The county with the most serious crime problem is Suffolk. Figure 2-17 shows this to be due more to violent crime than to property crime. While Suffolk's property crime score was 12 percent greater than that for Barnstable, the next highest county, the violent crime score was 150 percent greater than that for Hampden County, the next highest county in violent crime. Rates for particular violent crimes (figure 2-19) again show the extremely high rates for Suffolk county for all four crimes. Hampden county, however, exceeds even Suffolk in its assault rate.

Property crime rates in Barnstable county exceed both Worcester and Hampden counties in seriousness and volume (figure 2-17, 2-18). This is due to the extremely high larceny rate and the high burglary rate as well (figure 2-20). Auto theft in Suffolk county, in contrast, overwhelms the rates in the other counties. The closest county is Worcester with a rate which is slightly more than half as large.

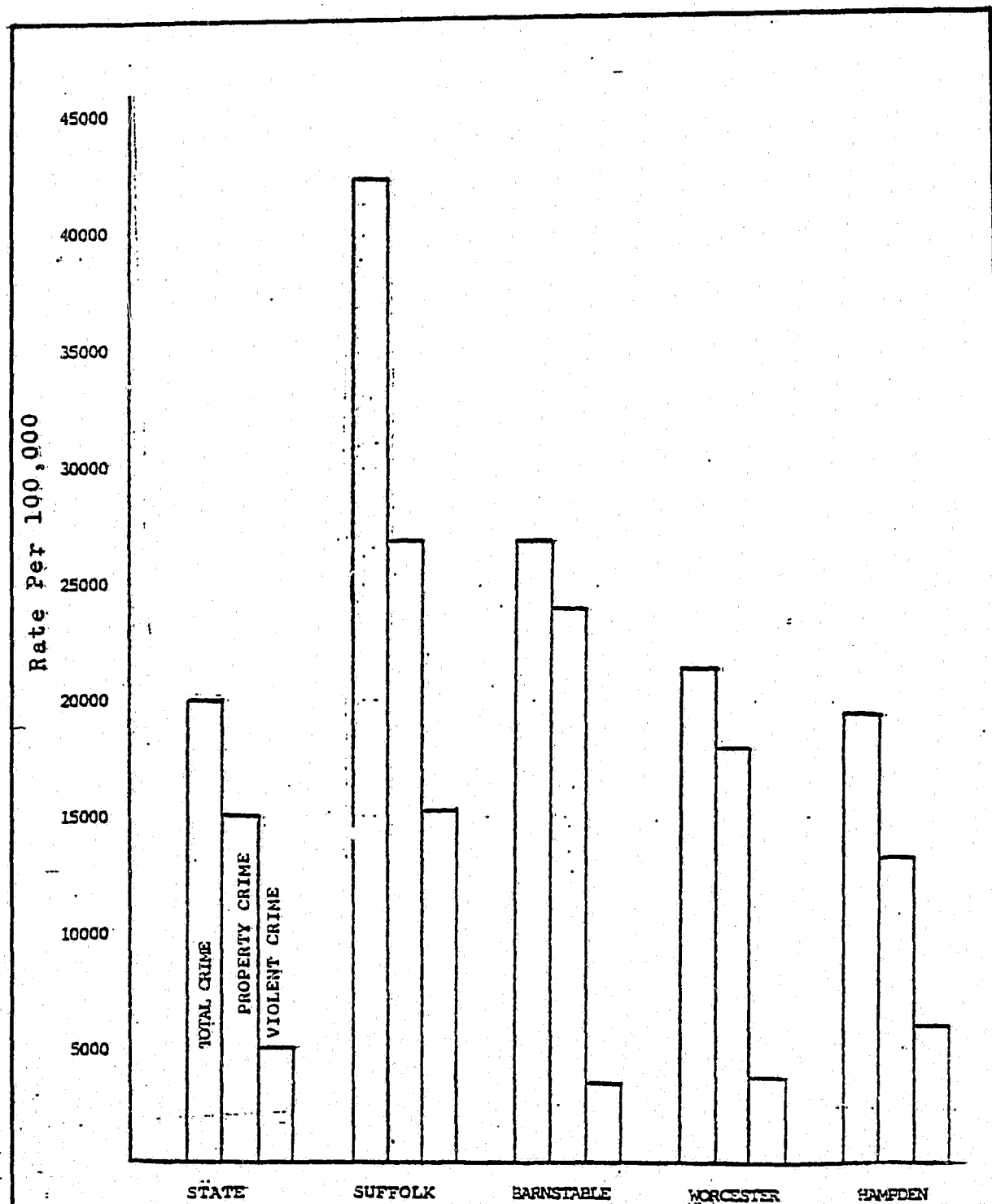
## F. Seven High Crime Cities

All of the previous sections of this chapter have stated that the crime problem is the most serious in the urban areas of Massachusetts. This section presents information to determine the extent to which this phenomenon is uniformly true throughout the major high crime urban areas of the state.

While Boston ranks first on all seriousness scales (figure 2-21), it is interesting to compare cities on the basis of what percentages of the total seriousness score is made up of the violent crime score. By this means it is possible to see that of the crime which occurs in each city, 35 percent or more was violent crime in the cities of Boston, Springfield, and Lynn. While Worcester had the second greatest score in total seriousness, only 17 percent of that score was due to violent crime. It is also interesting to note that while New Bedford had the lowest overall score, 24 percent of the total was violent crime. Cambridge's percentage of violent crime was 28 percent, while Fall River's was 14 percent.

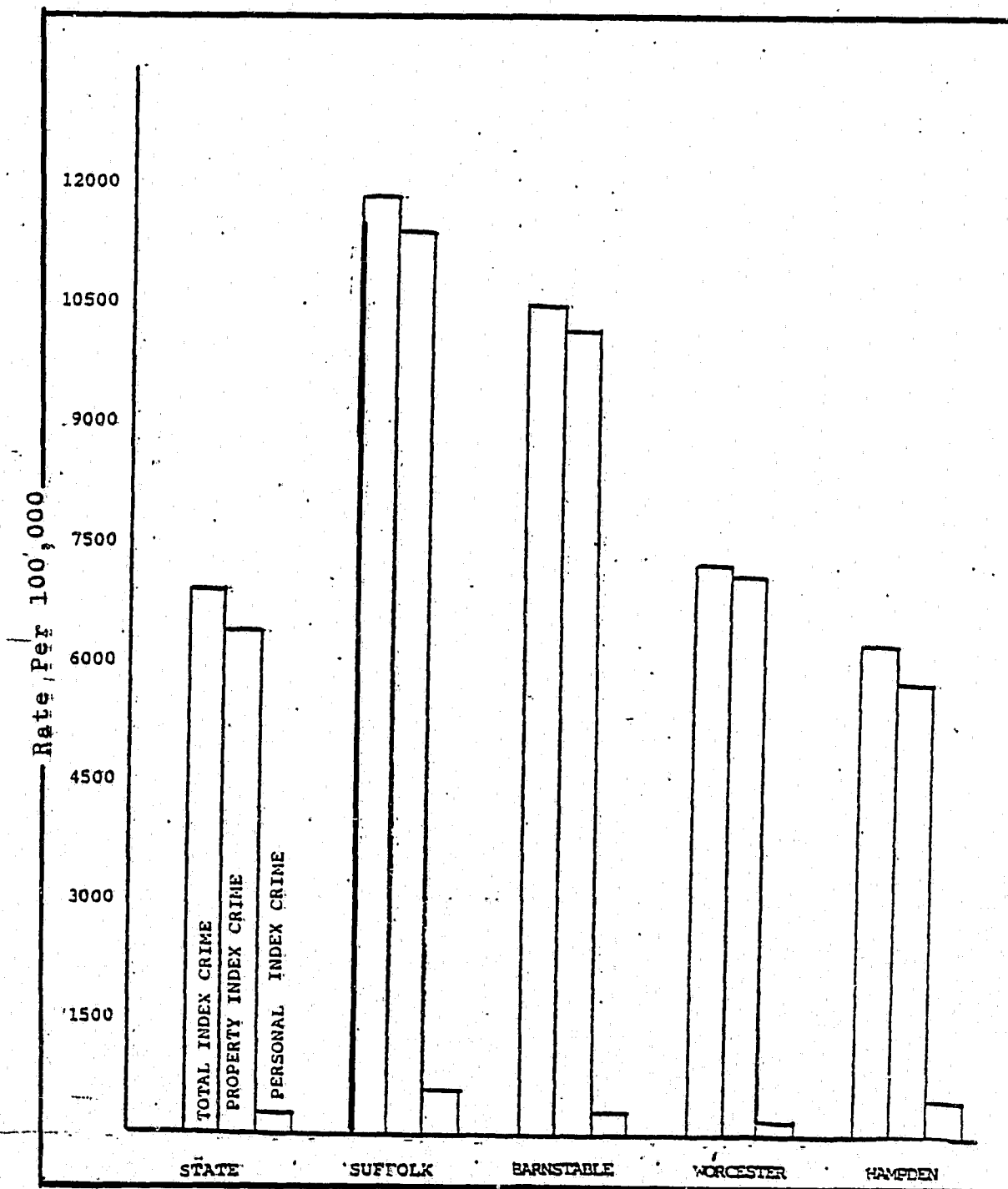


FIGURE 2-17 SERIOUSNESS SCALE SCORES BY Four High Crime Counties



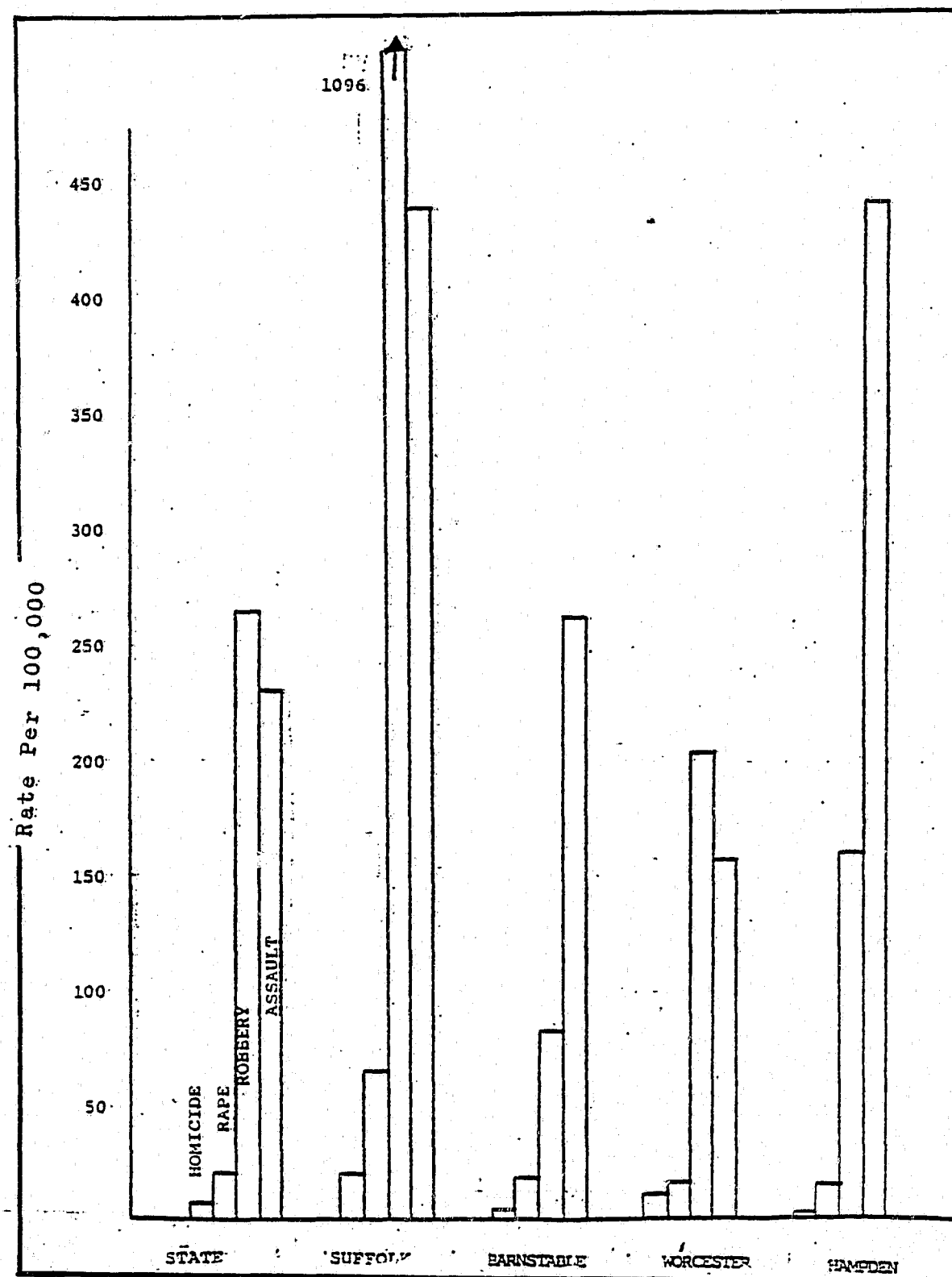
\*Seriousness scale scores weight the incidence of Part I crimes (murder, rape, aggravated assault, robbery, burglary, larceny and auto theft) by a measure of their seriousness.

FIGURE 2-18 TOTAL INDEX CRIME RATES BY Four High Crime Counties



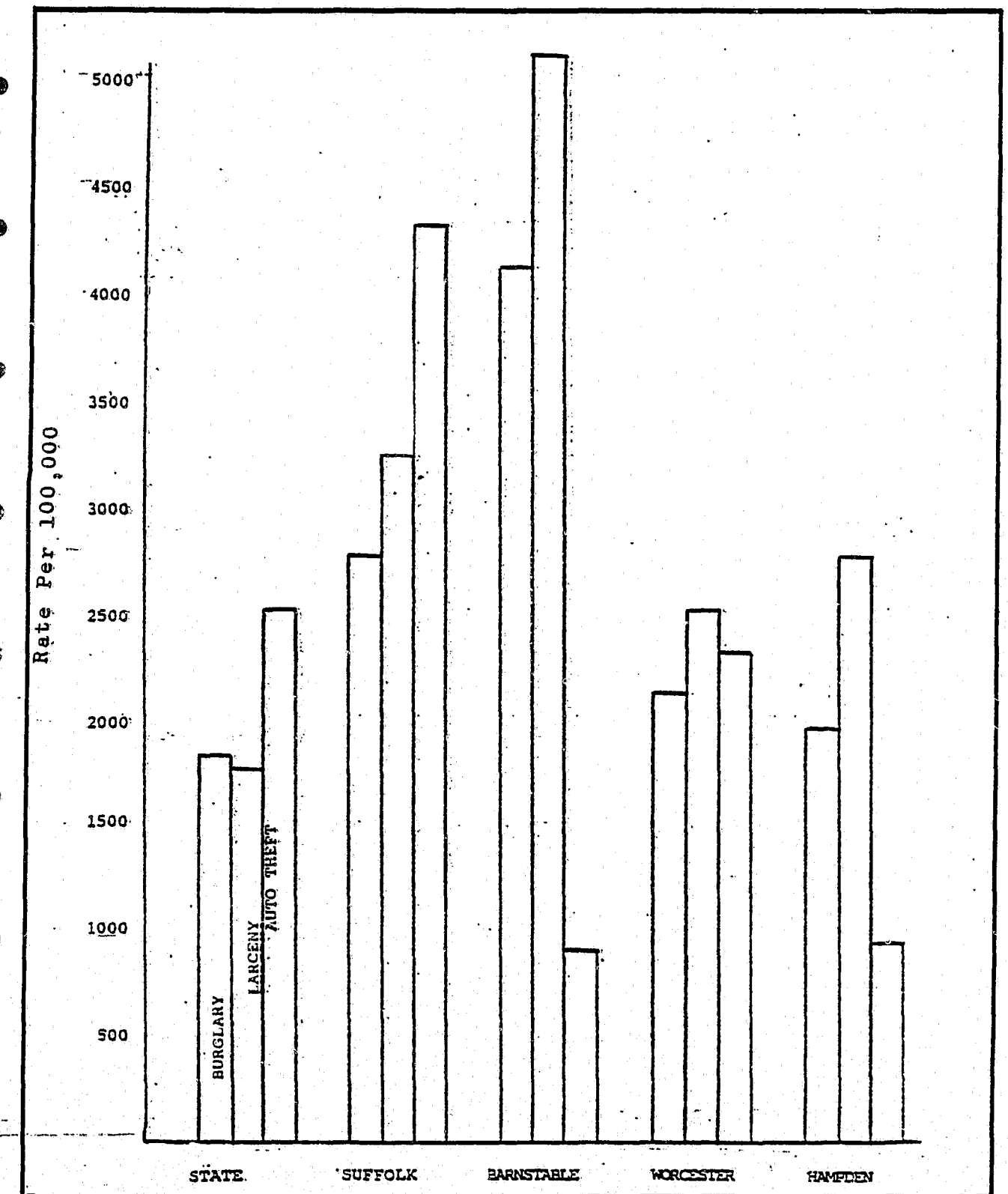
\*Index crimes are murder, rape, aggravated assault, robbery, burglary, larceny and auto theft.

FIGURE 2-19 VIOLENT CRIME RATES BY  
Four High Crime Counties



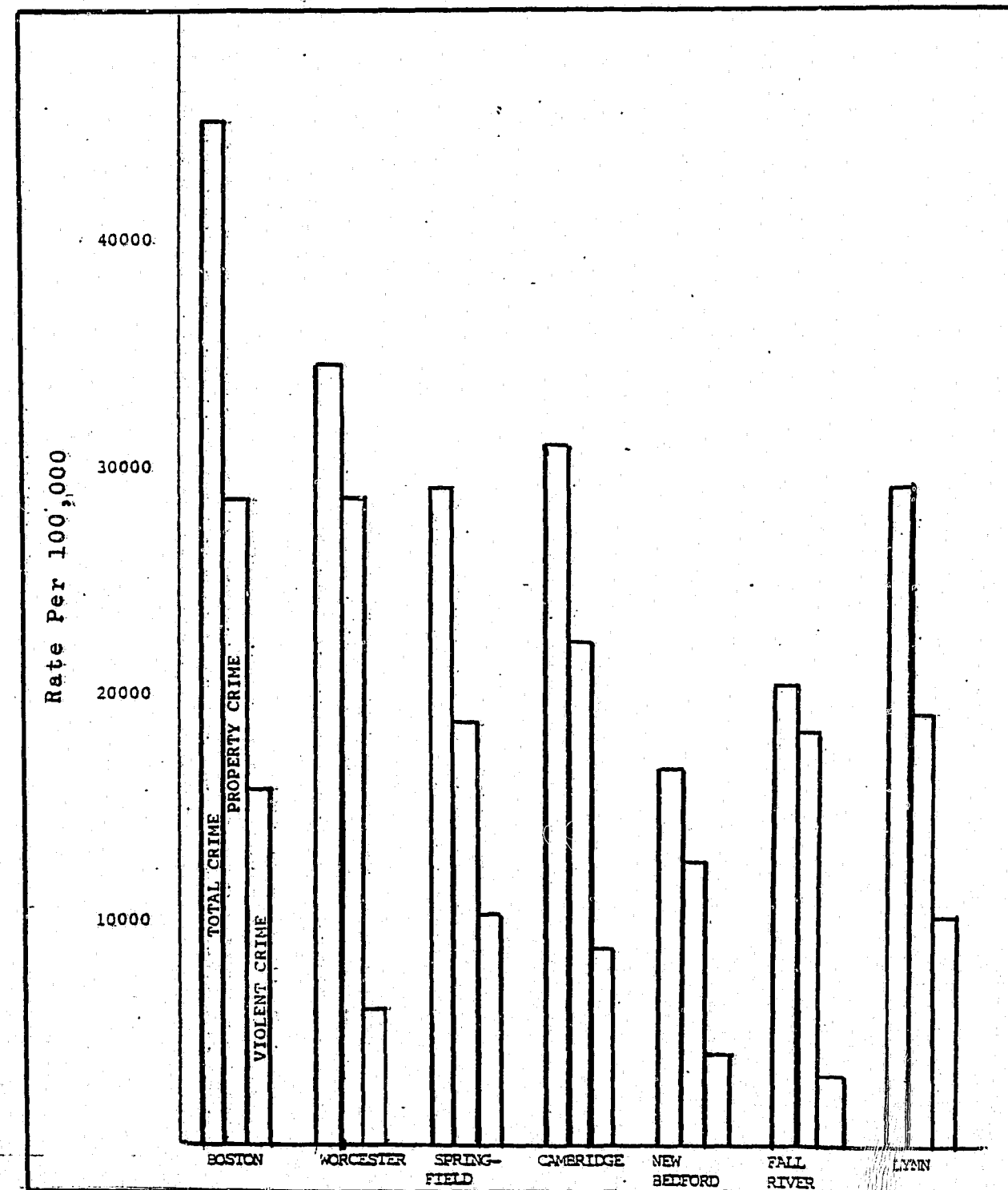
\*Violent crimes rates refer to murder, rape, aggravated assault and robbery.

FIGURE 2-20 PROPERTY CRIME RATES BY  
Four High Crime Counties



\*Property crime rates refer to burglary, larceny and auto theft.

FIGURE 2-21 SERIOUSNESS SCALE SCORES BY  
Seven High Crime Cities



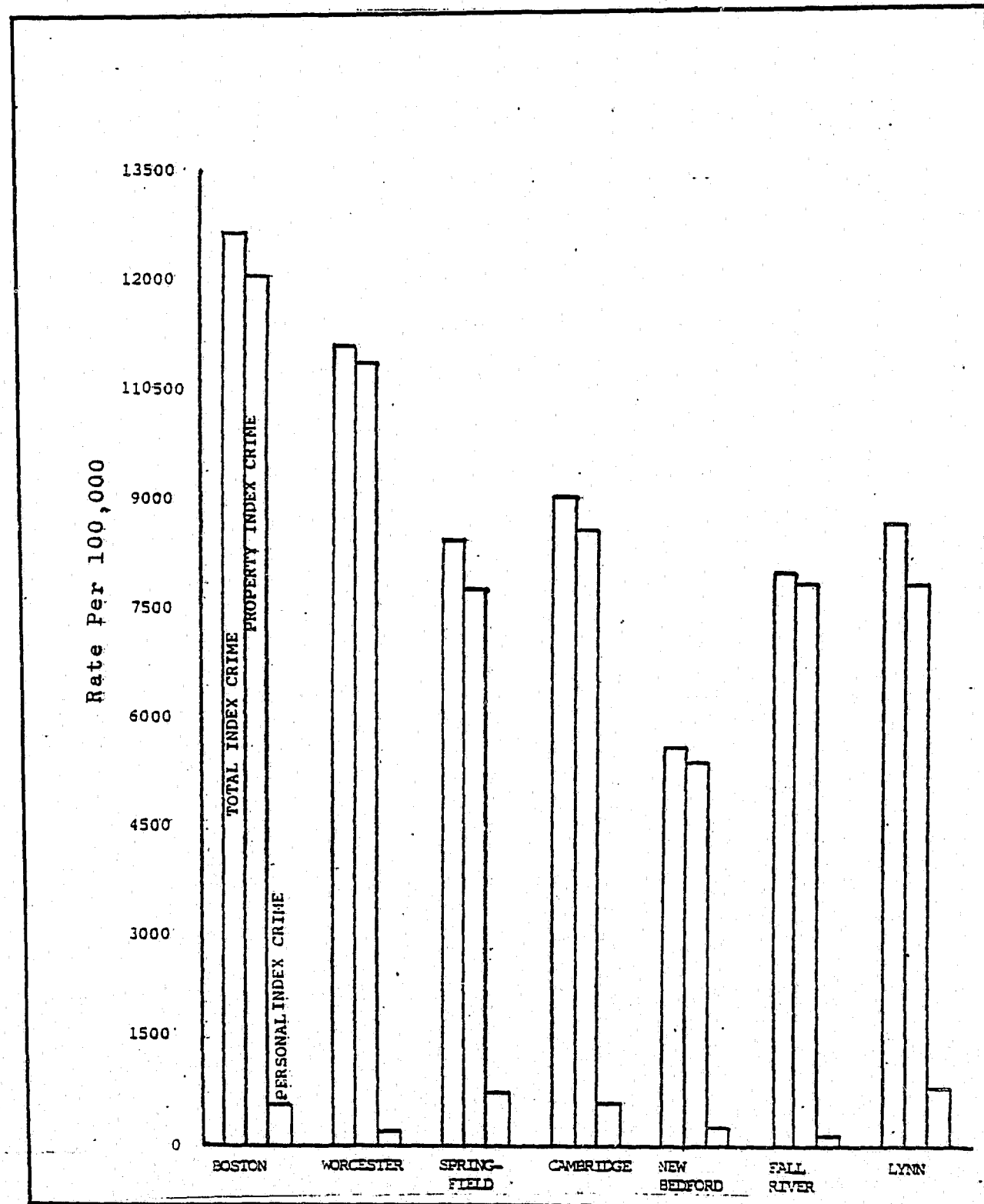
\*Seriousness scale scores weight the incidence of Part I crimes (murder, rape, aggravated assault, robbery, burglary, larceny and auto theft) by a measure of their seriousness.

Of these high crime cities (including Boston) Lynn and Springfield rank first and second in assault (figure 2-23). Cambridge ranks second in both robbery and rape and fourth in assault. Except for robbery in Worcester, violent crime in the cities of Worcester, New Bedford and Fall River does not compare with that in the other four cities.

The rate of auto theft is extremely high in the cities of Boston, Worcester and Cambridge, and comparatively low in New Bedford and Springfield (figure 2-24). At the extremes of this range of rates of auto theft the Boston rate is nearly five times the rate in New Bedford. Fall River and Springfield have the highest rates of larceny. Burglary is highest in Worcester and lowest in New Bedford. While larceny is the crime with the highest rate in New Bedford, that city is sixth in larceny, and seventh of these seven cities in burglary.

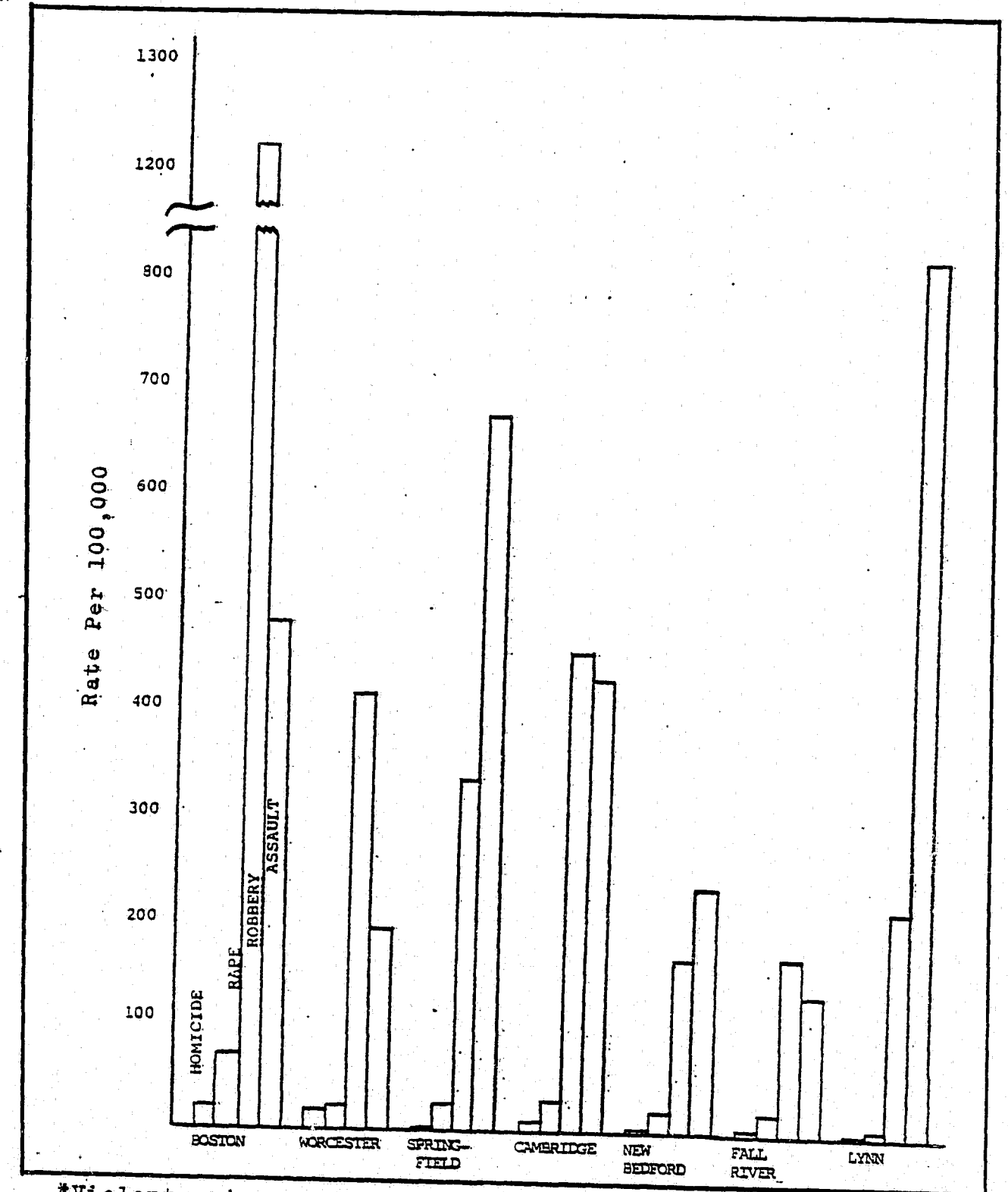
The diversity of crime rates among the various index crimes in these seven high crime cities indicates that population size and urbanization may have varying effects on crime. In addition, many other factors may be operating to raise and lower urban crime rates.

FIGURE 2-22 TOTAL INDEX CRIME\* RATES BY  
Seven High Crime Cities



\*Index crimes are murder, rape, aggravated assault, robbery, burglary, larceny and auto theft.

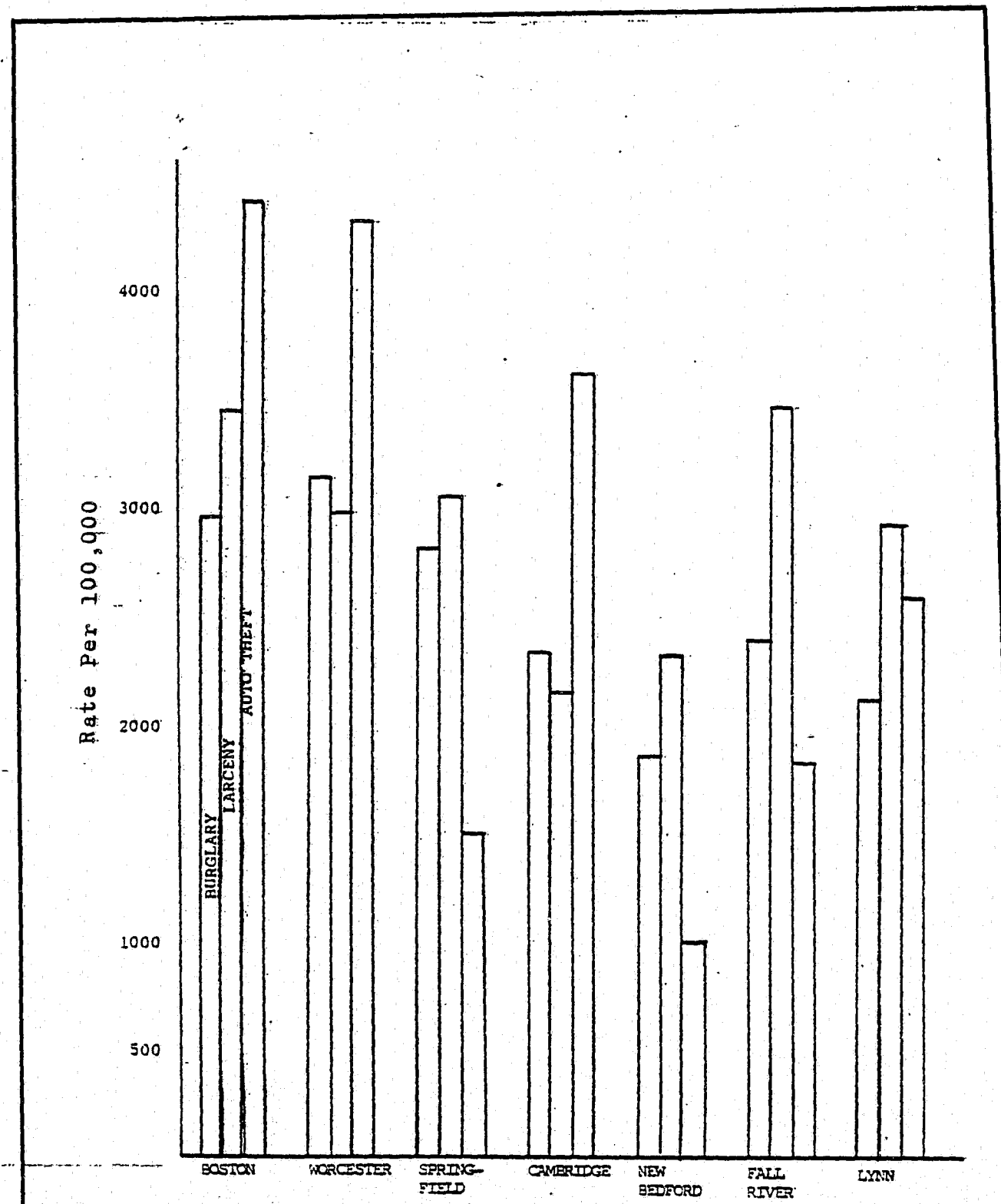
FIGURES 2-23 VIOLENT CRIME RATES BY  
Seven High Crime Cities



\*Violent crimes rates refer to murder, rape, aggravated assault and robbery.



FIGURE 2-24 PROPERTY CRIME RATES BY  
Seven High Crime Cities



\*Property crime rates refer to burglary, larceny and auto theft.

## Chapter Three VICTIMIZATION RATES

### A. Introduction

The 1974 and 1975 victimization studies permit an examination of a number of questions about the nature of crime in Massachusetts, which are not easily answerable with the UCR data. Section B of this chapter describes some of the limitations of the data source, Section C examines Massachusetts crime rates as measured in the victimization study. Section D examines the extent to which crimes are reported to the police. Section E attempts a partial comparison of UCR and victimization crime rates. Section F compares victimization rates of different demographic groups within the population. Section G discusses the perceived characteristics of offenders. Section H focusses on the costs of crime, as measured in the victimization studies.

### B. Limitations of the Victimization Data

The 1974 victimization survey is based on 4406 interviews and the 1975 survey is based on 4355. Since households were interviewed 2 or 3 times during the course of each year, the actual sample sizes were considerably smaller than these numbers indicate. While these are respectable sample sizes, many households were not victimized, which means such statistics as the percent of incidents reported to the police are based on fairly small samples. In 1974 there were 127 personal incidents (i.e., assault, rape, robbery, purse snatching and pocket picking) and 662 property incidents (burglary, larceny and auto theft) plus 37 "series crimes" (these occur when the individual or household is subjected to so many similar crimes that the victim cannot easily separate out the details of the incidents). In 1975 the comparable figures were 139 personal, 710 property and 34 series crimes.

#### 1. Why we cannot compare 1974 and 1975 Massachusetts Victimization Rates

Crime rates, based on the Massachusetts victimization data are subject to considerable sampling error. For example, the estimate of violent personal crime for 1975 is 3.3 per 100 individuals with a standard error of .4. This means that the victimization rate one would have obtained if all residents of Massachusetts had been interviewed would probably be between 2.5 and 4.1 incidents per 100 individuals over 12. While this certainly provides some information about the crime rate, it is too broad an interval for many comparisons one would like to make. E.g., the same rate for 1974 was 3.0. While lower than the 1975 rate, there is no way to know from this data alone whether there was a real increase in crime from 1974 to 1975 or whether the difference is attributable to sampling error, because the "true" 1975 rate may have been 3.0 or even lower. Because of this limitation of the victimization data, meaningful comparisons between 1974 and 1975 cannot be made. To improve the reliability of the data, information for 1974 and 1975 is combined to give an estimate of the average crime rates for the two years. This reduces

the standard error by approximately 25 percent, e.g., the estimate of the annual violent personal victimization rate for 1974, and 1975 is  $3.1 \pm .6$ , i.e., from 2.5 to 3.7.

## 2. Problems in Comparing Victimization and UCR Crime Rates

Crime rates based on the victimization study are not directly comparable to the UCR crime rates for a number of reasons: (1) UCR crime rates are based on the number of crimes reported to the police within a given area, while the victimization rates are based on the number of crimes against persons over the age of 12 (or households) residing in the area. Thus, if a non-Massachusetts resident is raped in Massachusetts it would be counted in the UCR rate, but not in the victimization rate. If, on the other hand, a Massachusetts resident is assaulted while out of the state, this would be counted in the victimization rate but not in the UCR rate. (2) Because of the survey techniques used in the victimization survey, no attempt is made to study personal crimes committed against children under 12. These are, however, included in the UCR figures. (3) The base figures used to obtain rates are different for UCR rates than for the victimization rates. For UCR rates, total population in the state is used. The rates for personal crimes in the victimization study are based on number of individuals over 12. For household crimes the base number is the number of households in the area. This number is, of course, much smaller than the total population in the state, thus making the victimization rates higher than they would be if based on total population. (4) The victimization rates available in this report do not include information on crimes against commercial establishments. Such crimes, however, are counted in the UCR rates. (5) The crime categories used by UCR are not always the same as those used in the victimization study. For example, victim reports on murder are obviously impossible and murder rates are therefore not included in the victimization study. (6) Crimes committed against commercial establishments (e.g., shoplifting) and other institutions are not included in the Massachusetts data currently available to us.

## 3. Other Biases in Victimization Data

UCR rates suffer from the fact that many crimes are not reported to the police. While one of the strengths of the victimization studies is their ability to obtain information on crimes not reported to the police, a number of other factors may bias the number of crimes reported: (a) Individuals may forget about crimes that occurred, especially if the crime was trivial and occurred several months prior to the survey (b) Individuals may report crimes that did not occur within the period about which they are being asked. (c) The individual may not wish to tell the interviewer about a crime. This is especially likely to be true for crimes like rape, which might embarrass the respondent. (d) The victimization interviewer does not attempt to verify the victim's report, so that an incident may be reported which the police would have found lacked grounds for a complaint. This could be due to lying on the part of the subject, the "selective telling" of an incident (as might happen if the subject had been involved in a fight) or might be due to a mistake on the subject's part (e.g., a subject may believe an item was stolen, which had in reality been misplaced).

In sum, the victimization data has serious limitations due to sampling error and its reliance on individuals' recollection and reporting of events. Further, the crime rates based on the victimization study are not directly comparable to the UCR rates.

## C. Victimization Crime Rates

The victimization rates provide an opportunity to examine the probability of an individual's being the victim of a crime. Figure 3-1 illustrates the probability of an individual in Massachusetts being the victim of a rape, robbery, assault, or theft aimed against the individual. It is seen there that around 3 out of every 100 Massachusetts citizens a year were victims of a violent crime (rape, robbery or assault), while the probability of being a theft victim was approximately 9 percent. The figures also indicate that rapes are relatively rare events. The probability of being a rape victim is lower than .1 percent. Assaults make up most of the violent crimes. Among assaults, simple assaults occur more frequently than aggravated assaults.

Among crimes of theft aimed against an individual most are non-violent thefts without contact. The probability of being the victim of larceny or robbery during the course of a year is around one in ten. Most of these crimes are without violence or contact.

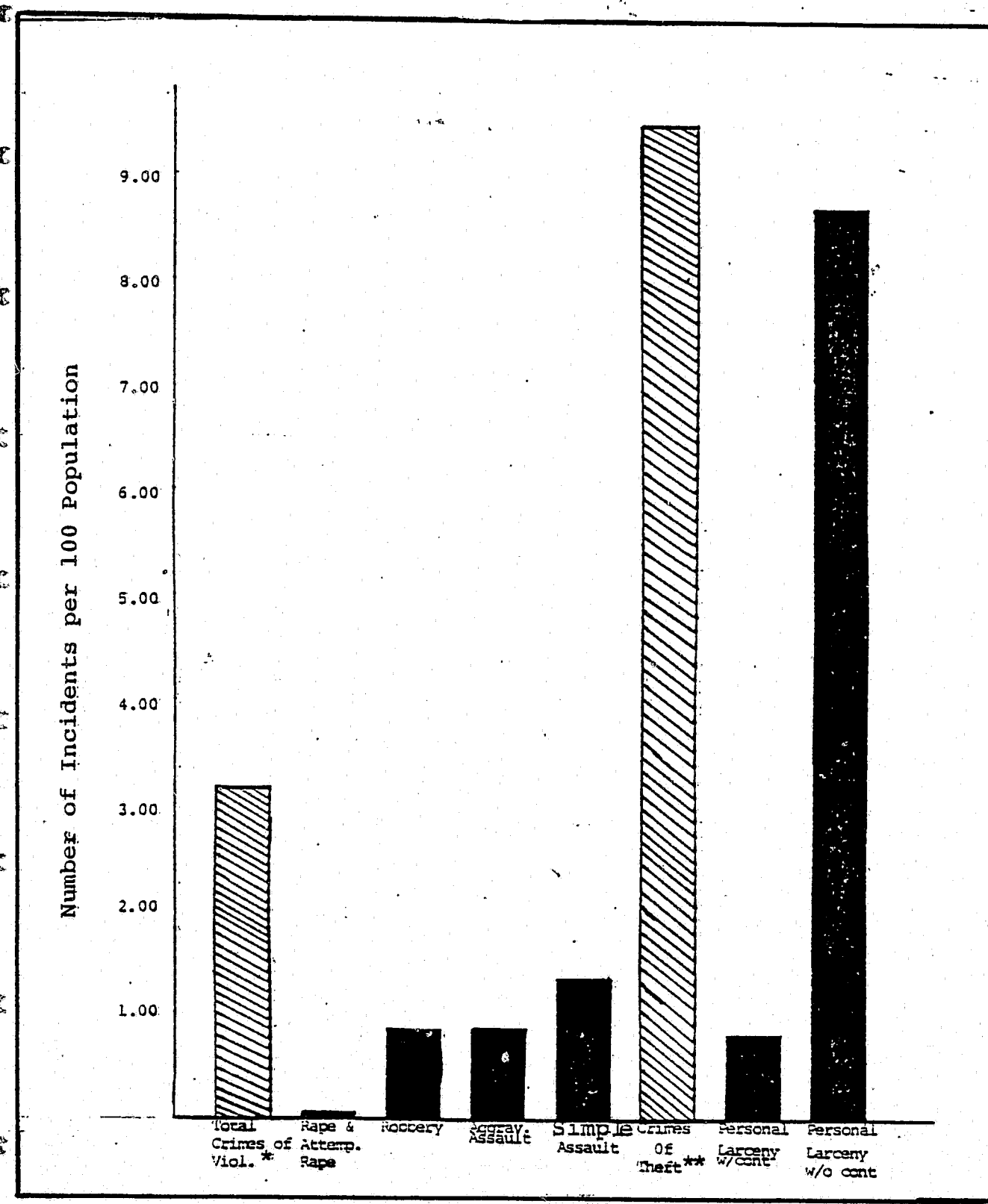
In addition to being an individual victim of a crime, one can be a victim conjointly with other members of one's household. As illustrated in figure 3-2, there were approximately 25 crimes against households reported in the victimization study for every 100 households. The probability of a household being victimized would be somewhat lower than .25, since some households were victimized more than once. Another way of interpreting this rate would be to say that the average Massachusetts household is victimized once every 4 years by a household burglary.

In sum, this section indicates that the "typical" Massachusetts individual is likely to find himself a victim of a personal or household crime approximately once every three years, limiting the crimes to those measured in this study - rape, robbery, assault, larceny aimed at the individual or his household, home burglary and auto theft. Ten percent of these crimes are violent.

## D. Percent of Crimes Reported to the Police

One of the major problems with the UCR statistics is that the police are only able to report to the F.B.I. those crimes of which they are aware. This means that the UCR figures underestimate crime. It also creates the possibility that apparent crime trends are due to changes in individuals' tendencies to report crimes to the police. Similarly apparent differences among crime rates may be created or concealed by differences in their rates of reporting crimes to the police.

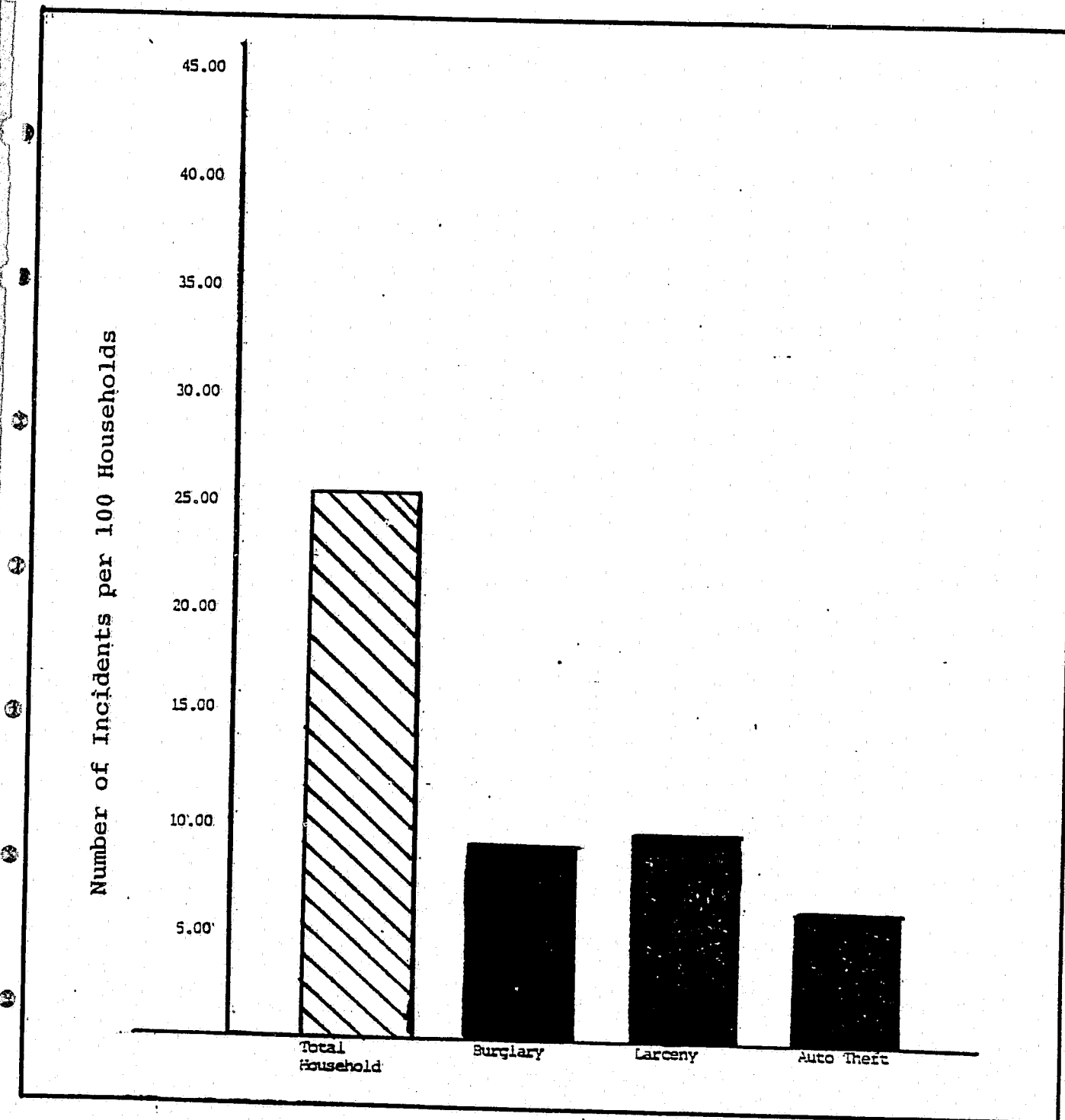
FIGURE 3-1 MASSACHUSETTS VICTIMIZATION RATES, Personal Incidents, 1974 - 1975 Average



\*Crimes of Violence-Rape, Attempted Rape, Robbery, Aggravated Assault and Simple Assault

\*\*Crimes of Theft-Personal Larceny with or without Contact.

FIGURE 3-2 MASSACHUSETTS VICTIMIZATION RATES, Household Incidents, 1974 - 1975



Approximately 32 percent of individual and 53 percent of household crimes in Massachusetts are reported to the police according to the victims. These figures are higher than the comparable federal figures for 1973 - 29 percent for personal crimes and 37 percent for household crimes.

Examination of figures 3-3 and 3-4 indicates that the type of crime has a significant impact on the probability of the crime being reported to the police. The more serious a crime is, the more likely it is to be reported to the police. Thus, 58 percent of household larcenies over \$50 are reported compared to 22 percent of larcenies under \$50.

The victimization surveys asked those not reporting a crime to the police why they failed to do so. These results are presented in figures 3-5 and 3-6. Most respondents claim that nothing could be done or the crime was not important. A sizeable number did not report the crime to the police because they reported it to someone else. Smaller numbers of individuals felt the police did not want to be bothered, thought it too inconvenient, thought it a private matter, were afraid of reprisals or did not wish to get involved.

In sum, many crimes go unreported to the police. This is especially true for relatively minor crimes.

#### E. Comparison Between Victimization and UCR Figures

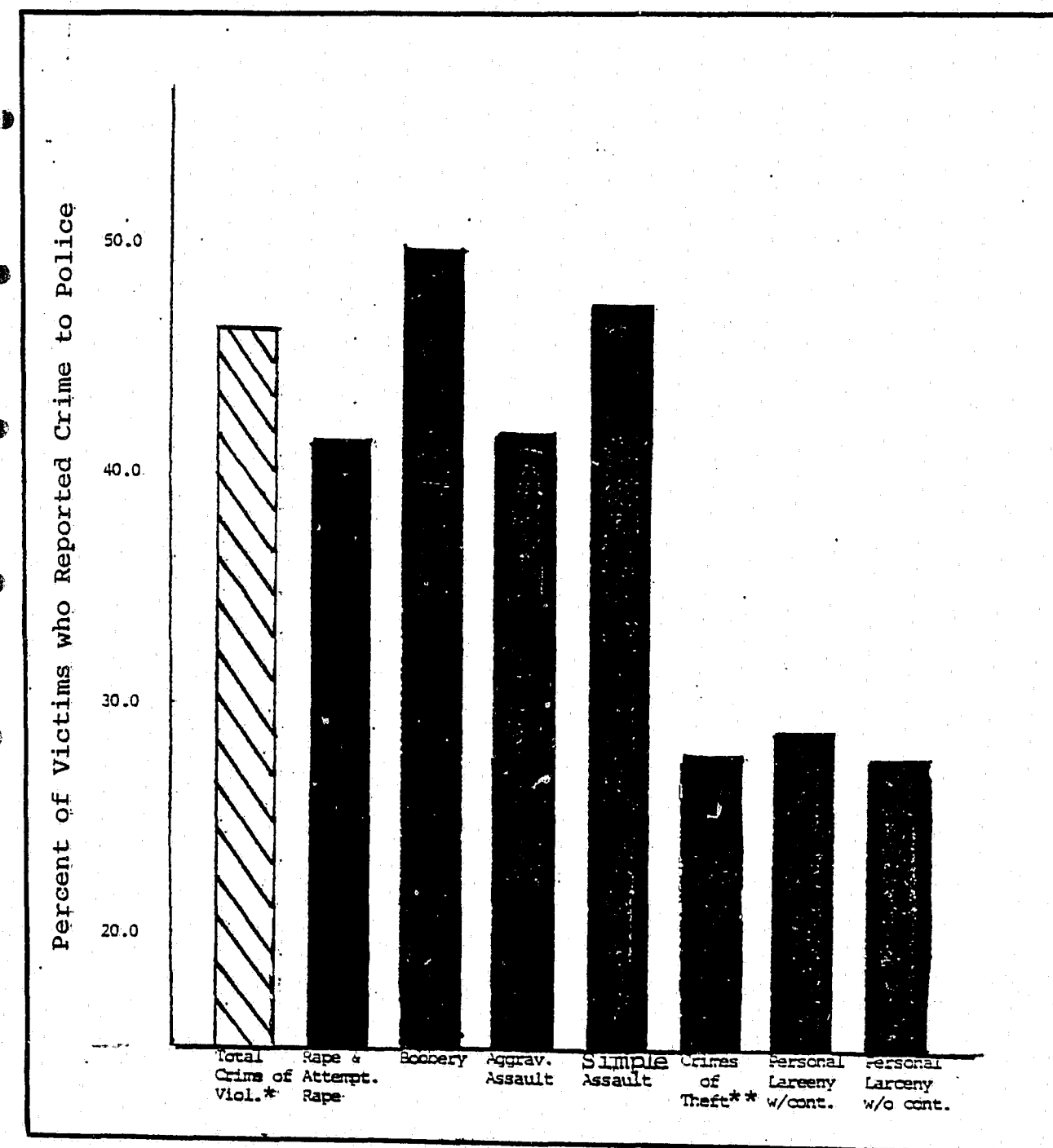
As indicated in Section B of this chapter, the victimization and UCR rates are not directly comparable. It is, however, possible to arrive at estimates for some of the crime rates, which we would expect to be similar, if measurements were perfect in both studies. To the extent that discrepancies arise in the rates, it indicates a weakness in our ability to measure crime.

The UCR index crimes include seven categories - murder, rape, aggravated assault, robbery, burglary, larceny and motor vehicle theft. Murder was not included in the victimization survey and comparisons are therefore not possible.

Since rape is by definition a crime against an individual, information on rapes in the victimization study should be comparable to the UCR information. The only obvious difference in definition between the two studies is that the victimization study includes homosexual rapes, while the UCR does not. Since all the rapes reported in the victimization study had female victims, however, this was not considered a problem. To make victimization rates comparable to UCR rates the total number of incidents reported was divided by the total population instead of the population over 12. This is equivalent to assuming there were a negligible number rapes of individuals under the age of 12.<sup>1</sup> Since 41.5 percent of rape victims interviewed

<sup>1</sup> The alternate assumption that those under 12 had a rate equal to those over 12 would provide an adjusted rate for rapes reported to the police of .028.

FIGURE 3-3 PERCENT OF VICTIMS REPORTING CRIMES TO THE POLICE BY TYPE OF CRIME, Massachusetts Personal Incidents, 1974 - 1975



\* Crimes of Violence-Rape, Attempted Rape, Robbery, Aggravated Assault, Simple Assault.

\*\* Crimes of Theft - Personal Larceny with or without Contact.



FIGURE 3-4 PERCENT OF VICTIMS REPORTING CRIMES TO THE POLICE  
BY TYPE OF CRIME, Massachusetts Household Incidents  
1974 - 1975

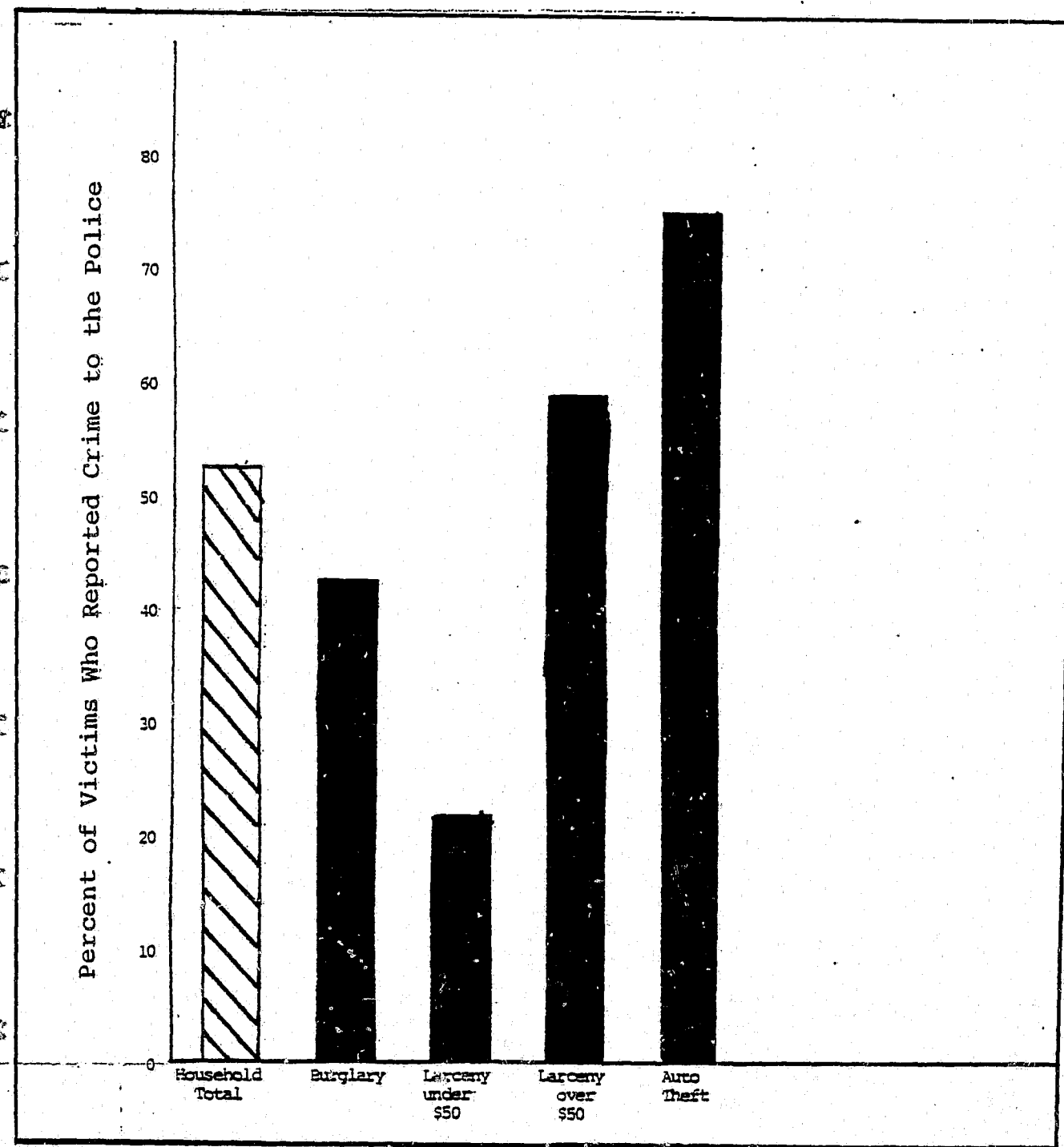
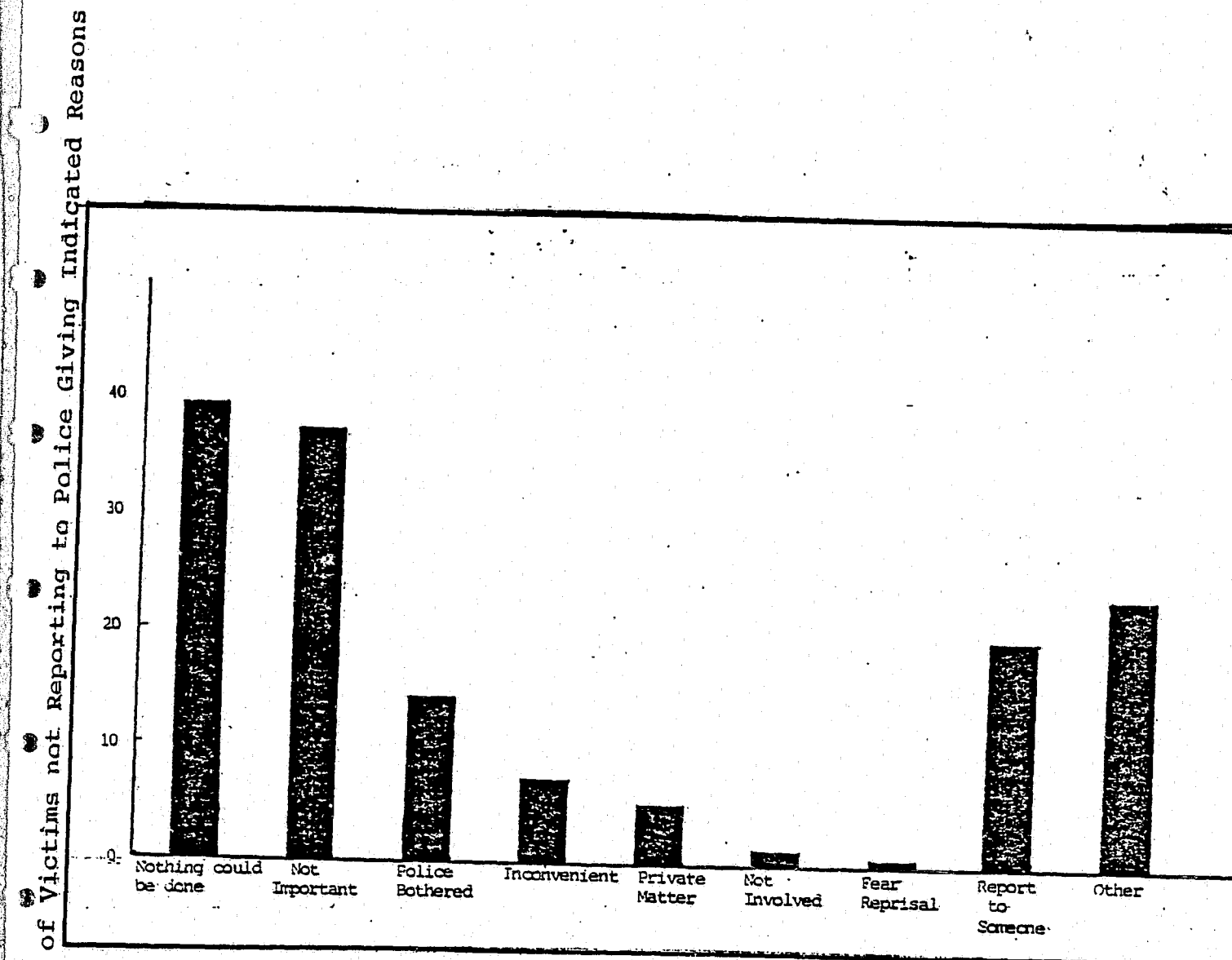
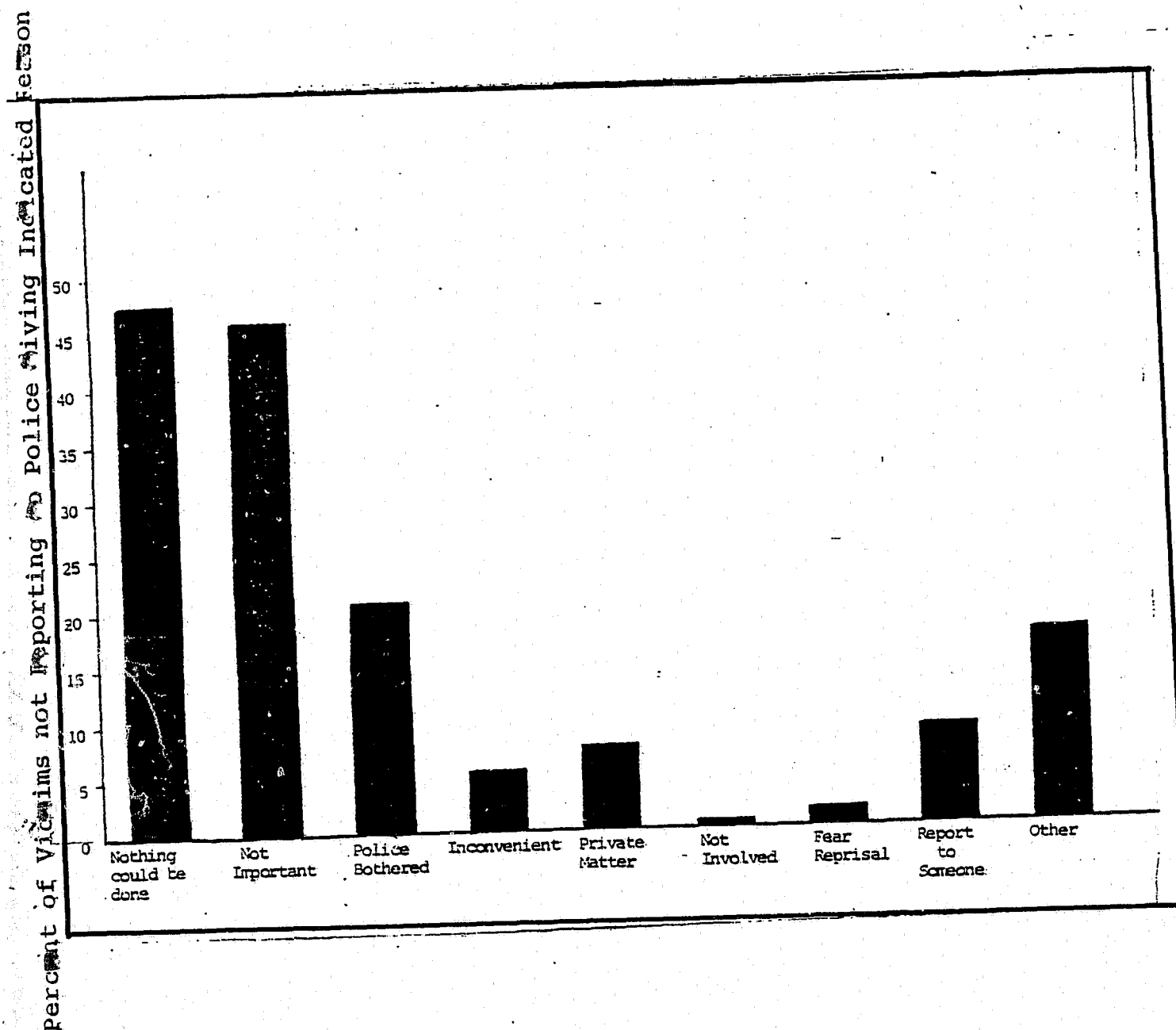


FIGURE 3-5 PERCENT OF INDIVIDUALS GIVING INDICATED REASONS FOR  
NOT REPORTING CRIME TO POLICE, Massachusetts  
Personal Incidents 1974 - 1975



Reason Given for not Reporting to Police.  
(Percents do not sum to 100 because more than  
one reason could be given.)

FIGURE 3-6 PERCENT OF INDIVIDUALS GIVING INDICATED REASONS FOR NOT REPORTING CRIME TO POLICE, Massachusetts Household Incidents 1974 - 1975



in the victimization study claimed to have reported the crime to the police, one would expect a UCR rate of .023/100 compared to the observed annual rate of .017/100 for 1974-5. Considering the rate nature of this crime and the relative inaccuracies of these estimates these two rates are reasonably close.

Aggravated assault is defined in the same way in both the UCR and the victimization studies. Since only individuals can be assaulted, the victimization data should reflect all cases of aggravated assault except those in which individuals under 12 are the victims. Dividing the number of aggravated assault incidents by the total population and then multiplying by the percent reporting to the police gives an aggravated assault rate of .291/100<sup>1</sup> considerably higher than the .174/100 rate obtained from the UCR data. There are several possible explanations for this discrepancy: (1) UCR rates may be overestimating the crime rates. (2) Victimization rates may be overestimating the crime rate. (3) The estimates of the percent of individuals reporting to the police may be high, perhaps because people are embarrassed about not reporting crimes. (4) We may not have made adequate adjustments to the two sets of figures. One thing which was not adjusted for was percent of cases reported to the police which were determined to be unfounded (i.e., the police decided that no crime had occurred). According to the 1975 Crime in the United States, "...a recent national survey revealed that police investigations unfounded 4 percent from 3 percent in the larceny - theft classification to 15 percent in the forcible rape category." (p.10) This correction would explain only a small part of the differences in aggravated assault rates between the victimization and UCR studies.

The remaining UCR crimes (robbery, burglary, larceny, and motor vehicle theft) are all crimes in which a commercial establishment could be the victim. The national UCR study indicates that approximately 37 percent of burglaries and 27 percent of robberies nationally occur outside of the individual and household segments. These figures can be used to reduce the UCR rates for these crimes, though it is important to realize that these reductions are only approximate, since the distributions between segments in Massachusetts may be different from those in the United States as a whole. The rates computed, making this adjustment plus the other adjustments discussed above for aggravated assault, resulted in adjusted rates which are considerably higher for the victimization data than for the UCR data. The possible explanations for this discrepancy are the same as those set forth in the discussion of the discrepancies for aggravated assault.

In this section we have attempted a comparison of the victimization and UCR rates, making appropriate adjustments for some of the more obvious differences between the rates. These adjustments were feasible for 4 crimes-rape, aggravated assault, personal robbery and household burglary. All four comparisons showed higher rates based

<sup>1</sup>If one assumes that those under 12 are victimized at the same rate as those over 12, this rate would be .363.

Crime	Adjusted Victimization Rate/100*	Adjusted Victim Rate/100 Reported to Police**	Adjusted UCR Rate/ 100***
Rape	.055	.023	.017
Aggravated Assault	.699	.291	.174
Personal Robbery	3.193	1.797	1.028
Household Burglary	.691	.344	.161

\*These rates equal number of incidents divided by total Mass. pop.  
 \*\*These rates equal the adjusted victimization rates times the population claiming to report the crime to the police.  
 \*\*\*The UCR figures for robbery and burglary include commercial crime figures—approximately 37% of burglaries and 27% of robberies nationally are in this category. The adjusted rates are reduced accordingly.

FIGURE 3-7 Comparison of Crime Rates Based on Adjusted UCR and Victimization Data, Massachusetts, 1974-1975 Average

on the victimization data than the UCR data. This may, of course, be due to inadequacies in our adjustment techniques. It is, however, likely that either the UCR or the victimization data or both are not providing us with as accurate estimates of the extent of criminal incidents in Massachusetts as would be desirable.

#### F. Characteristics of Crime Victims

##### 1. Personal Victims of Violent Crime

Figure 3-8 presents victimization rates for crimes of violence (rape, robbery and assault) against persons. It is seen there that the probability of being the victim of violent crime is significantly affected by one's demographic characteristics. The following groups have relatively high crime victimization rates: males, young individuals, blacks, single or never married individuals, high educated individuals and low occupational status individuals. With the exception of education, which is not reported in the national study, these results conform with those for the national victimization study done in 1973.

It must be emphasized, however, that the observed rates in the Massachusetts sample are subject to sampling error. It is therefore important not to place too much emphasis on the exact size of the rates, especially for small sub-groups. For example, blacks are seen to have an exceptionally high victimization rate. The standard error for this rate is approximately 2.1 which means that the interval estimate of the black victimization rate is 8.0 to 16.3- a wide margin. Even the lower end of the interval is considerably larger than the 4.7 rate observed for blacks in the 1973 national study. The difference between Massachusetts and the United States may be accounted for by the residency patterns of blacks in Massachusetts. In the 1974 victimization study in Boston the violent crime victimization rates for the 2 races were almost identical: 7.0 for blacks and 6.8 for whites. Since 71.6 percent of Massachusetts blacks resided in Boston according to the 1970 census figures, the high victimization rate for blacks is probably due to their concentration in Boston and other urban areas. In 1970, 96 percent of Massachusetts blacks resided in metropolitan areas compared to 74 percent of blacks nationally. While the victimization rates for the other demographic categories indicate that disadvantaged individuals are most likely to be the victims of crime, the education variable shows the highest rate for individuals with at least some college and the lowest rate for individuals who had graduated from high school. It appears unlikely that the low rate for high school graduates is due to sampling error; on the other hand the difference between the high and low education categories may be due to sampling error.<sup>1</sup>

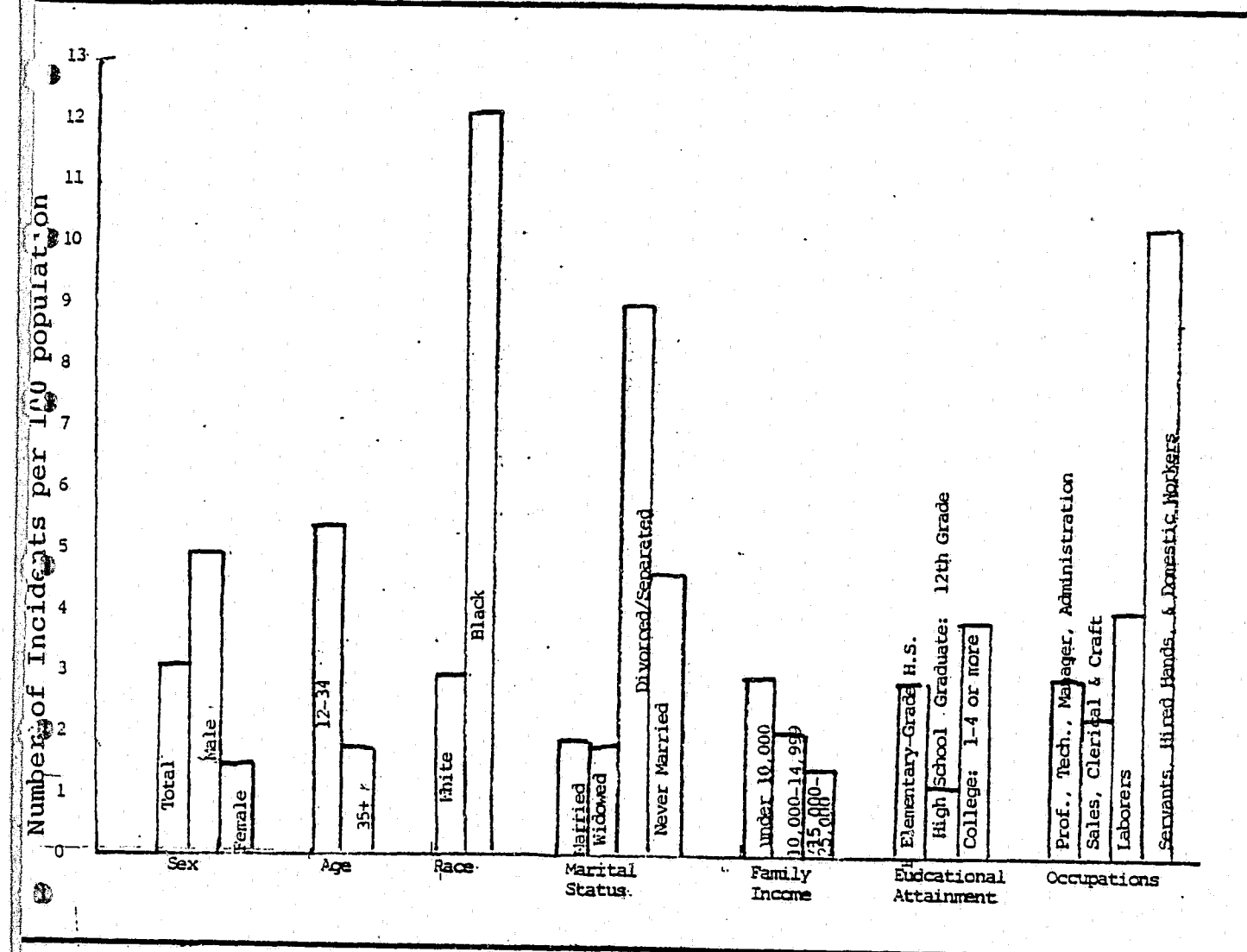
Assuming

<sup>1</sup>The 95 percent confidence intervals for the three categories are:

# of Years of School Finished	Interval Estimate of Victimization Rate
0-11 years	2.0 - 3.6
12 years	.8 - 1.7
13 or more	2.9 - 4.9

The lowest and highest category show considerable overlap, but neither of these categories overlaps the middle education category.

FIGURE 3-8 CRIMES OF VIOLENCE, PERSONAL INCIDENTS VICTIMIZATION RATES FOR DEMOGRAPHIC GROUPS, Massachusetts, 1974 - 1975 Average





that differences among the education categories are "real", the most likely explanation for the observed pattern is that the relationship is due to differences in the characteristics of victims in each educational category. For example, women are more likely to finish high school than men, but are less likely to go to college. The 1970 census indicated that 30.1 percent of men compared to 39.0 percent of women in Massachusetts had completed 4 years of high school and that 27.1 percent of men compared to 20.5 percent women had gone to college. 42.8 percent of men and 40.5 percent of women did not complete high school. Unfortunately, it was not possible to examine the cross-tabulations on sex, education and victimization rates to verify this guess.

Educational attainment was not reported in the national or city victimization data. Therefore there are no statistics with which the Massachusetts data can be compared to check its plausibility.

In sum, violent crime is relatively more often directed against males, young adults, blacks and low income individuals. These are the same groups which are generally believed to commit a disproportionate number of violent crimes. This makes sense in terms of the tendency for individuals with similar demographic characteristics to work, live and play in close proximity. It is reasonable to believe that violent-prone offenders are likely to direct their aggressions against easily available victims.

## 2. Victims of Crimes of Theft

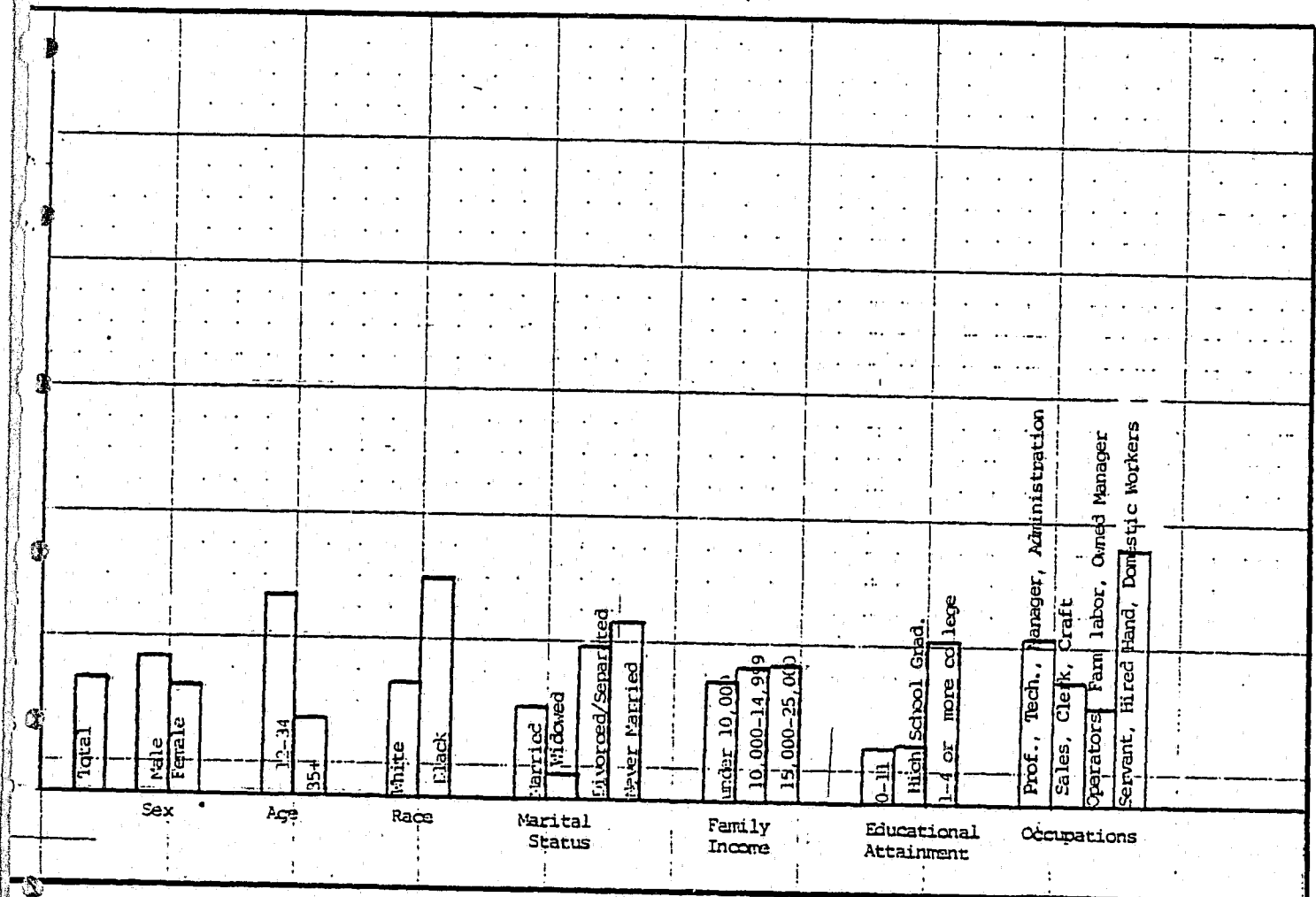
As indicated in Section B, crimes of theft can be directed against an individual, a household, or against other institutions. In this section only crimes of theft in which an individual is the victim will be considered. The relevant figures for the victimization rates are presented in figure 3-9.

For crimes of theft, as for crimes of violence, men, young individuals, blacks, those never married or divorced, those with high education and those with low occupational status are relatively likely to be the victims of personal theft incidents. The personal victimization rates for theft, however, tend to increase with income. The highest status occupational group is also seen to have a higher crime rate than the intermediate status groups. These findings are generally consistent with those for the national study with the exception of race.

In 1973 the national study obtained a rate of 8.5 for blacks and 9.5 for whites. Once again, the most likely explanations for this discrepancy are the small size of the black sample for Massachusetts and the residency patterns of blacks within Massachusetts. The victimization study in Boston did show blacks as less likely to be the victims of personal crimes of theft than whites - 10.1 for blacks compared to 12.4 for whites.

The data for crimes of theft seem to indicate two forces at work--proximity of the potential victim to the criminal-prone individual and the thief's preference for victimizing individuals who are likely to have something worth stealing.

FIGURE 3-9 CRIMES OF THEFT, PERSONAL INCIDENTS VICTIMIZATION RATES FOR DEMOGRAPHIC GROUPS, Massachusetts, 1974 - 1975 Average



### 3. Characteristics of Crime Victims: Household Crimes

Burglary, motor vehicle theft and household larceny can be viewed as crimes in which households are the victims. In examining these crimes, victimization rates are based on the number of households in the sample rather than the number of individuals. Figure 3-10 illustrates the rates of household victimization for different types of households.

As was true for personal incidents of theft in Massachusetts, the victims of household theft are relatively likely to be black, young and have a high income. Larger households also appear to be more frequently the victims of theft than are smaller households. The same patterns observed here are found in the national data.

### G. Offender Characteristics

In those cases in which the individual victim was able to see the offender(s), the individual was asked a number of questions about his or her perception of the demographic characteristics of the offender(s). This information is presented in figure 3-11.

Before examining the distributions of offenders, it is important to emphasize that the information on offender characteristics was only obtained in approximately 14 percent of the personal incidents. Further, the victim is more likely to be able to see the offender in a personal crime of violence than in one of theft. Because of this approximately 2/3 of the times in which the victim was able to describe the offender, the incident was a violent one.

A second limitation on the data on offender characteristics is that perceptions are not necessarily accurate. Different observers of a crime do not always agree on important details. To the extent that victims expect criminals to be young, black and male, they are more likely to perceive an offender(s) as having these characteristics.<sup>1</sup>

A third limitation on using victimization data to determine offender characteristics is that information is only available on a small number of easily apparent characteristics. Especially important here is our inability to determine the social class characteristics of the offender. This means we have no way of telling whether the relatively high percent of black offenders is simply due to the disproportionate number of blacks who are economically deprived.

For this limited sample of offenders, both the national and the state figures show that most offenders acting alone are over 21, while most group offenders are under 21. Both sources also indicate that approximately 2/3 of solo offenders are white and approximately 1/3 of offender groups are all white. These statistics indicate that youth and blacks are less likely to commit crimes alone than are older individuals or whites.

<sup>1</sup>This is, of course, most likely to occur when the victim gets only a fleeting glimpse of the offender. Basically, in recreating the incident in his mind, the individual fills in gaps in his recollection of the event.

FIGURE 3-10 HOUSEHOLD INCIDENTS VICTIMIZATION RATES FOR DEMOGRAPHIC GROUPS, Massachusetts 1974 - 1975 Average

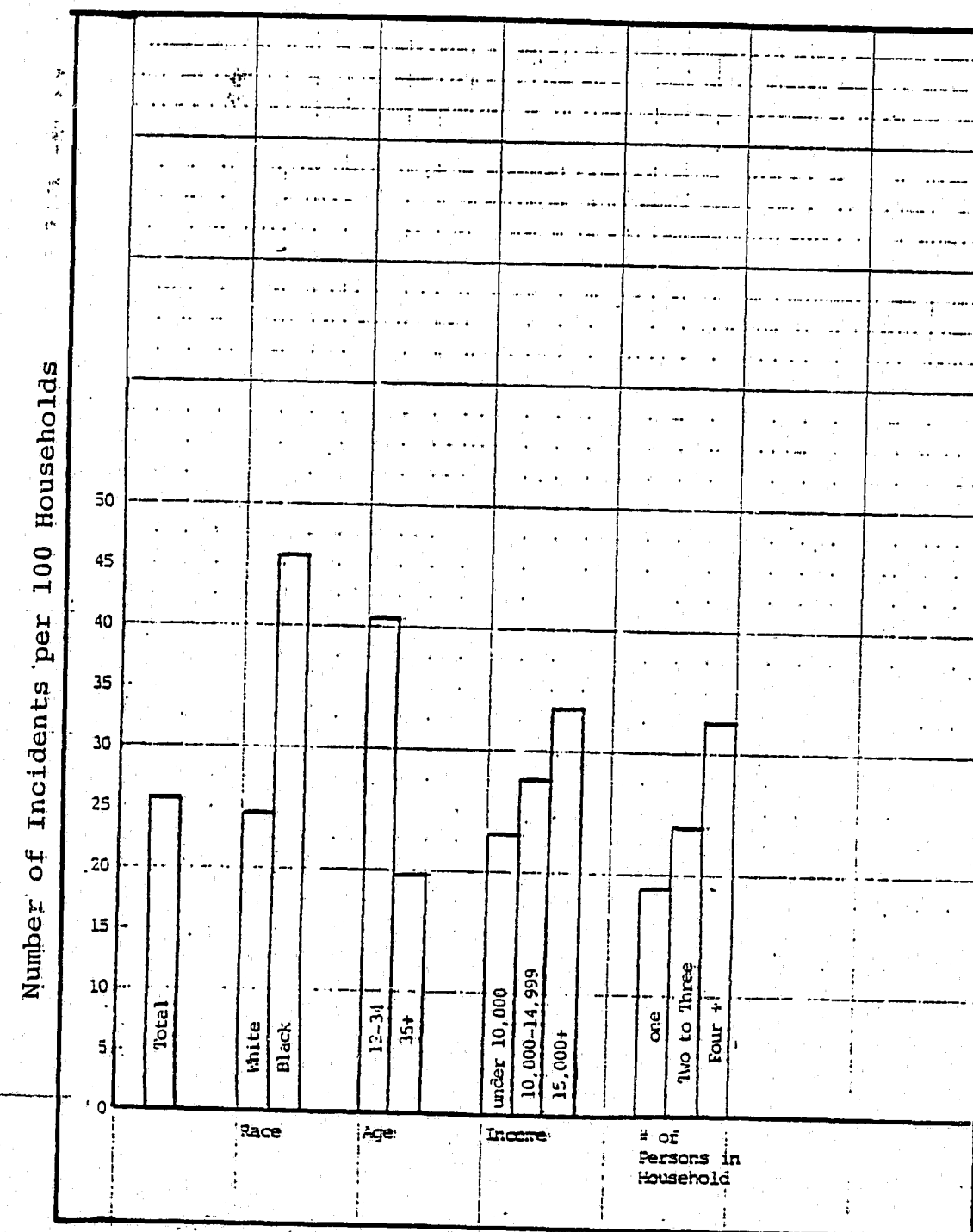


FIGURE 3-11 PERCEIVED CHARACTERISTICS OF OFFENDERS, Massachusetts 1974-1975

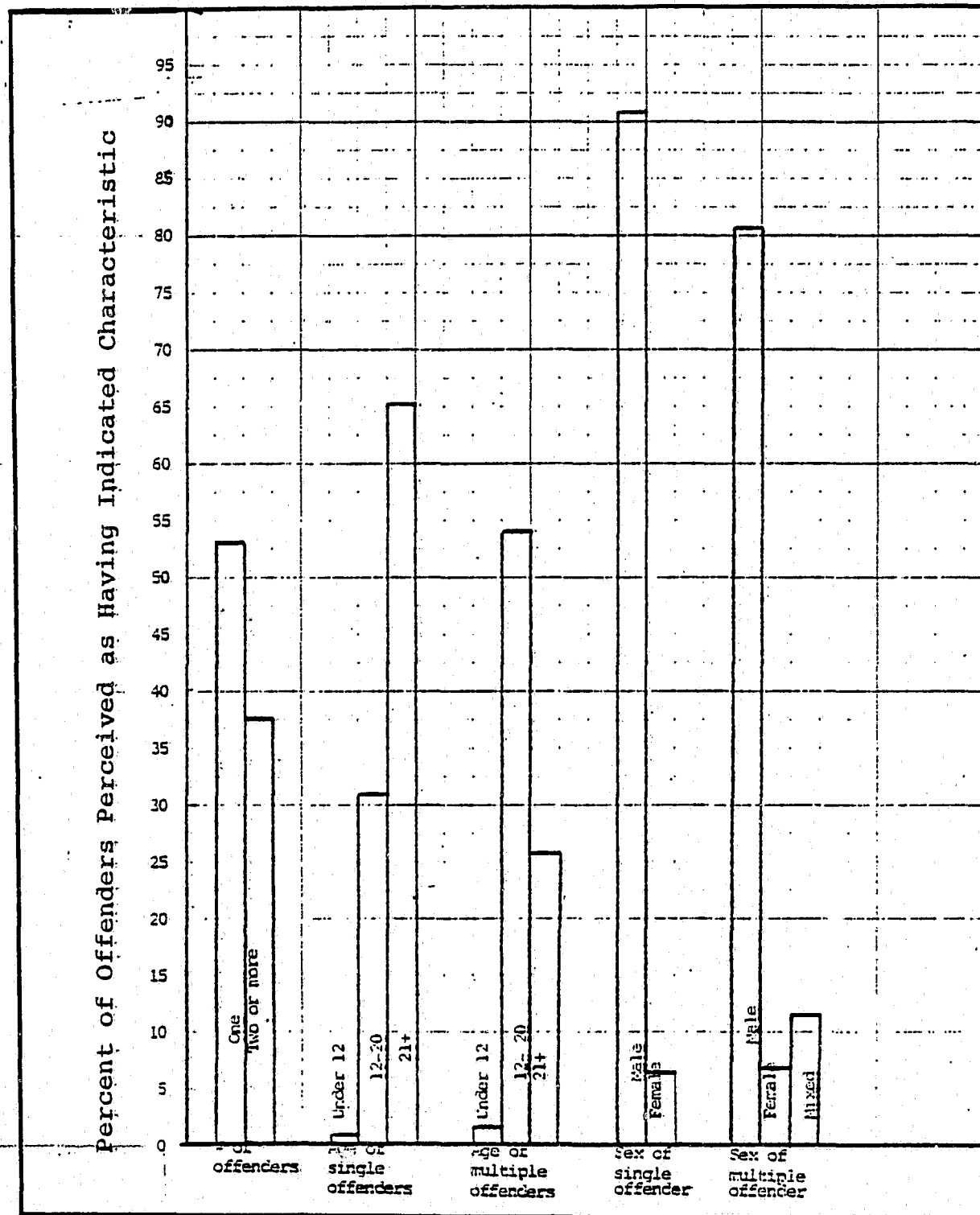
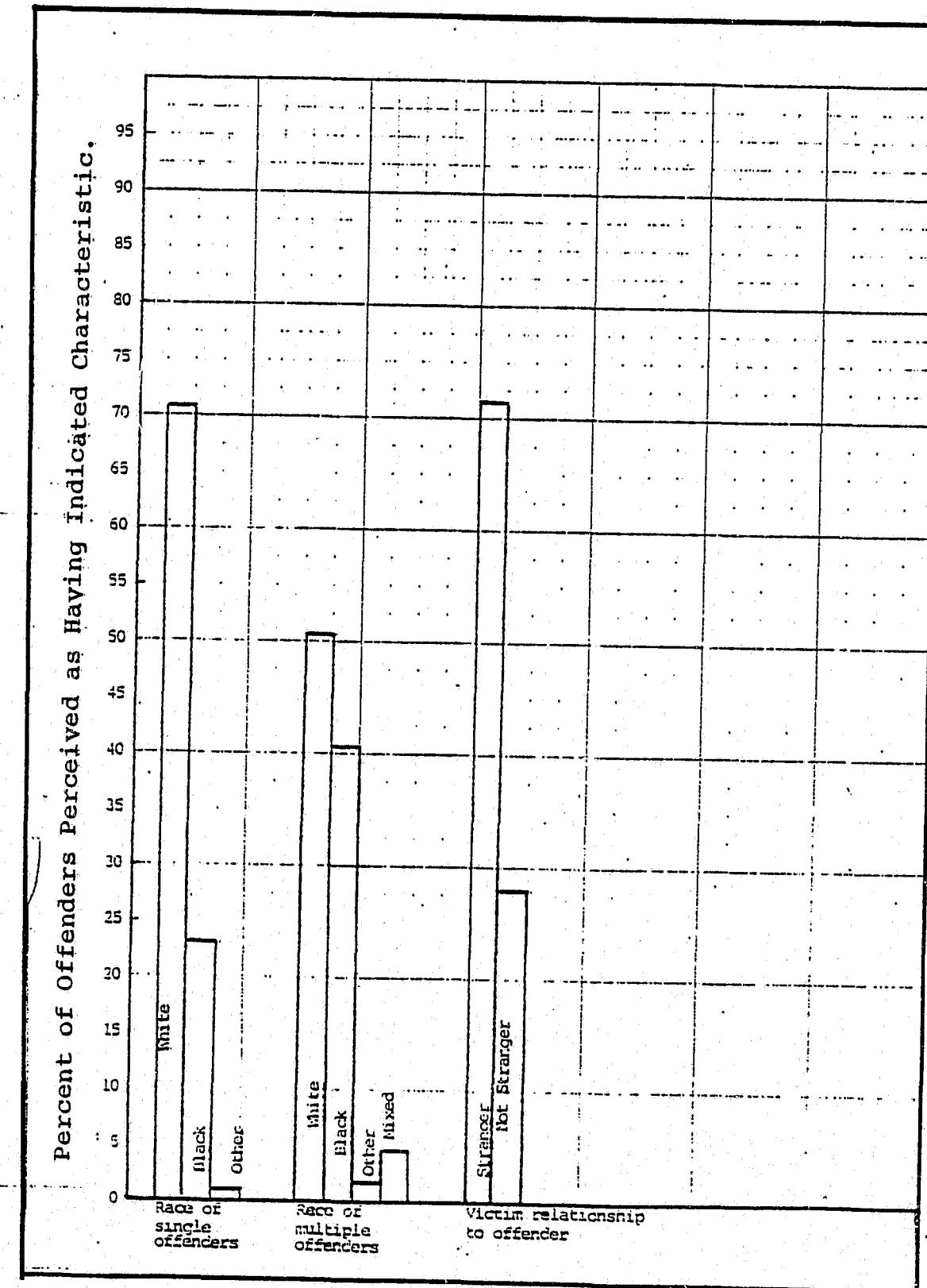


FIGURE 3-11 (Con't) PERCEIVED CHARACTERISTICS OF OFFENDERS, Massachusetts 1974-1975



The 1970 Census showed that 16.6 percent of the population in Massachusetts was between the ages of 12 and 20. Over 50 percent of multiple offenders and over 30 percent of individual offenders were in this category. Similarly, 3.1 percent of Massachusetts residents were recorded as being black in the 1970 Census, compared to 22 percent of single offenders and 40 percent of group offenders observed in this study. Thus, it appears that a disproportionate number of those committing violent personal crimes in Massachusetts were young and black. However, as noted above, one must be cautious in interpreting these figures due to the possibility of victims' perceptual biases and the lack of controls on social class factors.

Two distributions were computed for the Massachusetts data, which were not available in the national study--the distribution of incidents by number of offenders and the distribution by sex of offender. These distributions show that the majority of incidents involved only one offender and that the offenders were much more likely to be male than female.

In sum, the victimization data on offender characteristics confirms several general assumptions about the nature of those who commit violent crimes--they are disproportionately young, male and black. While the victimization data has a number of serious problems, since most victims do not encounter the offender, these statistics are important because they are one step closer to the commission of the crime than are statistics on individuals arrested.

#### H. Consequences of Crime

In making decisions about resource allocation to and within the criminal justice system it is important to know what the costs of crime are to the residents of Massachusetts. Such an analysis is a necessary first step in a cost/benefit analysis of possible changes in the system. The Massachusetts victimization study does not permit estimates of the total costs of crime, because of the lack of information on many important crimes, such as murder, arson, shoplifting, and embezzlement. However, it does permit the calculation of cost figures for those crimes covered. This information is presented in figure 3-12. All figures computed are the average for 1974 and 1975, i.e., they are annual costs.

Those crimes against the person reported in the victimization study resulted in over four million dollars in medical expenses, another four million in property damage and almost forty million in terms of property stolen. The net cost to victims is not quite as high as this because insurance covers some of the costs and because the police recover some of the stolen property. The estimate of net costs of crime to the victim is \$31 million. In addition to this, victims spent more than 47,000 days a year in the hospital and lost 125,000 days of work.

Crimes against households including auto theft result in an annual cost of over \$170 million in stolen property and in over \$20 million of property damage. Insurance and property recovery reduce the loss to the victim to just under \$ 75 million.

FIGURE 3-12 Losses Due to Crimes, Massachusetts, Average 1974-1975

<b>Personal Crimes:</b>	
Medical Expenses	\$ 4,214,000
Value of Stolen Property	39,466,805
Damage to Property	<u>4,104,375</u>
Total Loss	<u>\$47,785,180</u>
Victims' Net Loss	<u>\$31,088,607</u>
Days Hospitalized	47,280
Days of Work Lost	<u>125,125</u>
<b>Household Crimes</b>	
Value of Stolen Property	\$173,194,475
Damage to Property	<u>22,299,541</u>
Total Loss	<u>\$195,494,016</u>
Victims' Net Loss	<u>\$ 74,120,345</u>
Days Work Lost	<u>\$ 70,238</u>



In addition to the \$105 million loss to the victims of crime attributable to the crimes in this study, a total estimate of the costs of crime must add the costs to the insurance companies, costs to the commercial segment, and the costs of crimes such as murder and arson not included in this study. The days of work lost due to crime (approximately 195,000 days for crimes covered) is another economic cost of crime, borne either by the victim or his employer. Finally, it must be emphasized that not all crime costs are measurable in dollars and cents. The psychological costs of a rape, the pain of a broken arm, the sorrow of losing treasured possessions, the inconvenience of replacing stolen identification cards, the suspicions engendered in the crime victim and his neighbors are not measurable in economic terms. These costs figures, therefore, are but the tip of the iceberg in crime costs in Massachusetts.

## Chapter Four CRIME TRENDS

### A. Introduction

In this chapter crime trends in Massachusetts will be described. These trends will be compared with national trends and with information for other New England states.

The analyses in this chapter are based on the data published in the F.B.I.'s Uniform Crime Report, Crime in the United States. This data base is different from that used in the preceding chapter. It does not include information on some towns for which SAC obtained information, but does include estimates for unreporting towns.

### B. Crime Trends in Mass. & the United States: Total Crime

#### 1. Mass. & U.S. - Total Index Crimes

The fifteen years between 1960 and 1975 witnessed a steadily increasing total index crime rate in both Massachusetts and the United States, as illustrated by figure 4-1. The average annual increase has been greater for Mass. during this time than for the nation as a whole, resulting in Massachusetts' crime rates exceeding the national rate starting in 1968.

#### 2. Mass. & U.S. - Seriousness Scale Index

In addition to examining the total index crime trend, it is interesting to examine the crime trend using the seriousness scale. While the trends observed in figure 4-2 are similar to those for the total index, note that Mass. crime did not exceed that of the nation until 1973 using this measure. This reflects the fact, which will be examined in more detail in sections C and D, that Mass. has experienced higher crime rates than the nation for the relatively less serious crimes, while experiencing lower rates for the more serious crimes.

#### 3. Mass. & New England - Total Index Crimes

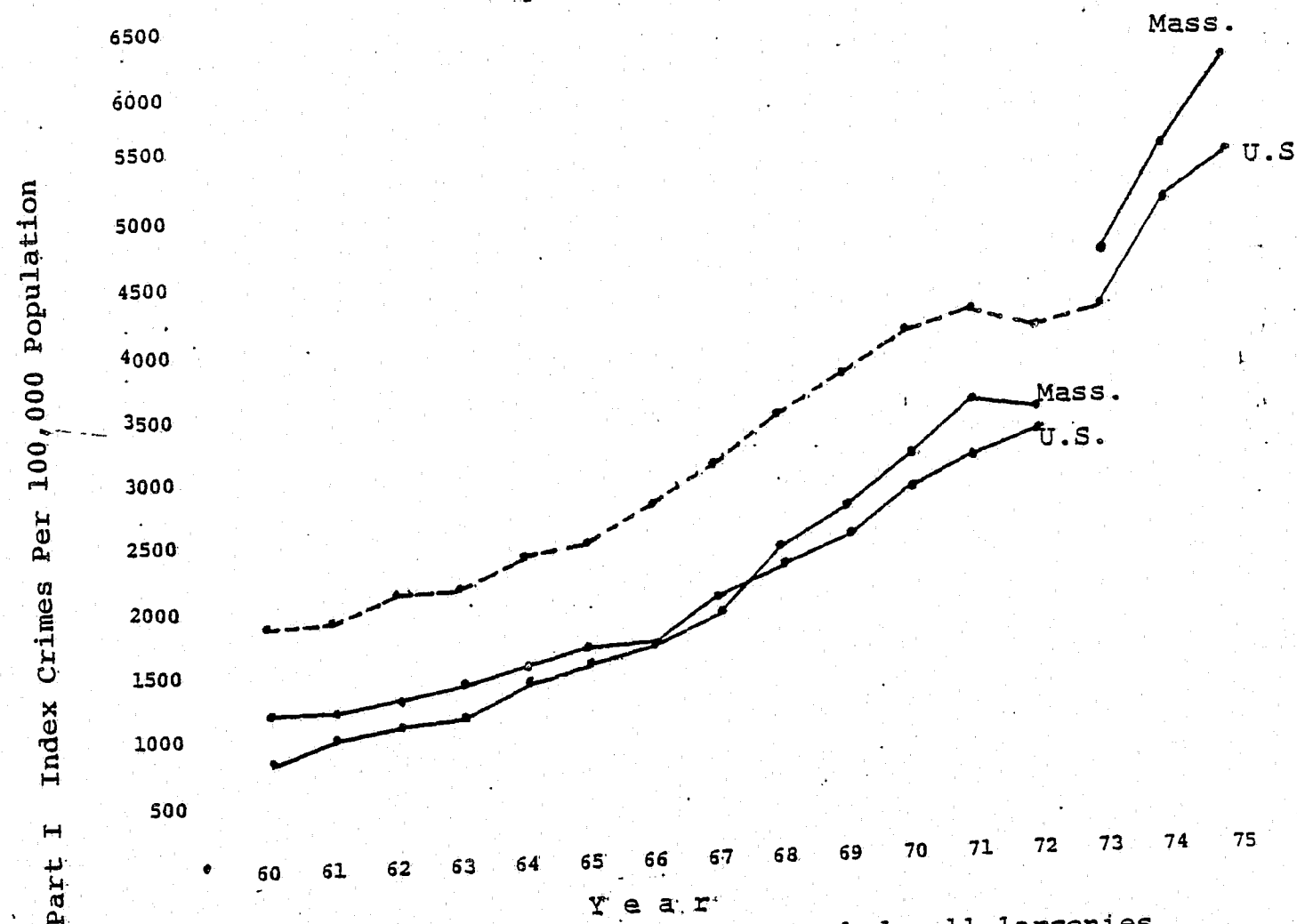
In addition to comparing Mass. to the United States, it is interesting to compare Mass. to the New England states. Figure 4-3 shows that all of the New England states experienced significant crime increases between 1973 and 1975. Massachusetts had the highest crime rate in the region in 1974 and 1975 and the second highest in 1973. The percent increases in crime for Mass. are close to the average, which is not surprising in light of the fact that over one half of the crime (55% in 1975) in New England is reported in Mass. and approximately one half (48% in 1975) of New England's population resides in Mass. It is also interesting to note that crime in the relatively industrialized states of Mass., R.I., and Conn., is considerably higher than that of the more rural states of Maine, VT. and N.H.

#### 4. Mass. & U.S. - Percent Changes in Crime Rates

In examining the crime rate trends it is important to note that there are fluctuations in the annual rate of change, i.e., crime has increased dramatically in some years, while only staying the same or

FIGURE 4-1

Total Index Crime Rates, 1960-1975, Massachusetts and United States



In 1973 the crime rate was changed to include all larcenies instead of larcenies over \$50. The dashed line indicates the values the index crime rate would have had prior to 1973 if all larcenies had been included.

FIGURE 4-2

Seriousness Scale Crime Rates, 1960-1975, Massachusetts and United States.

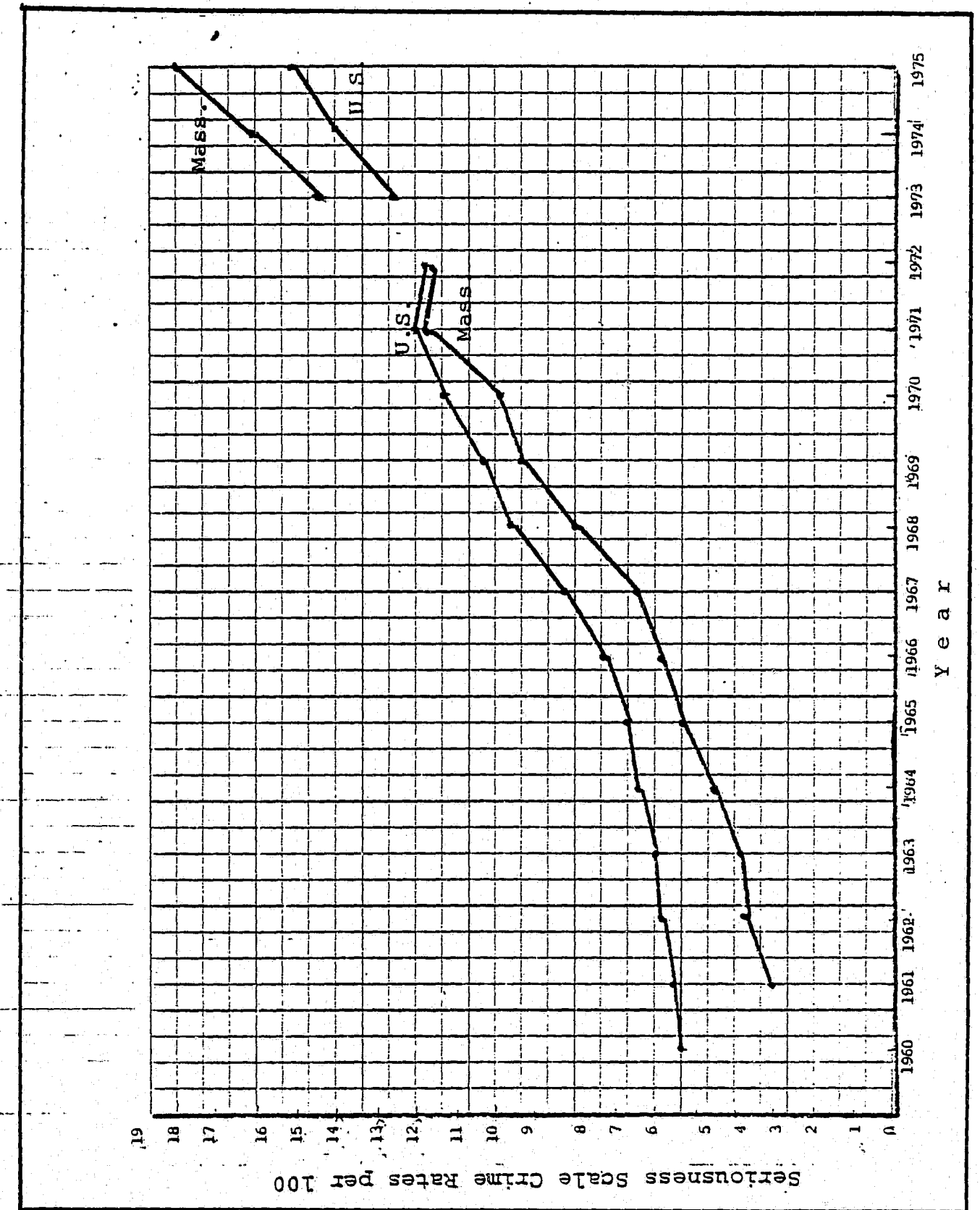
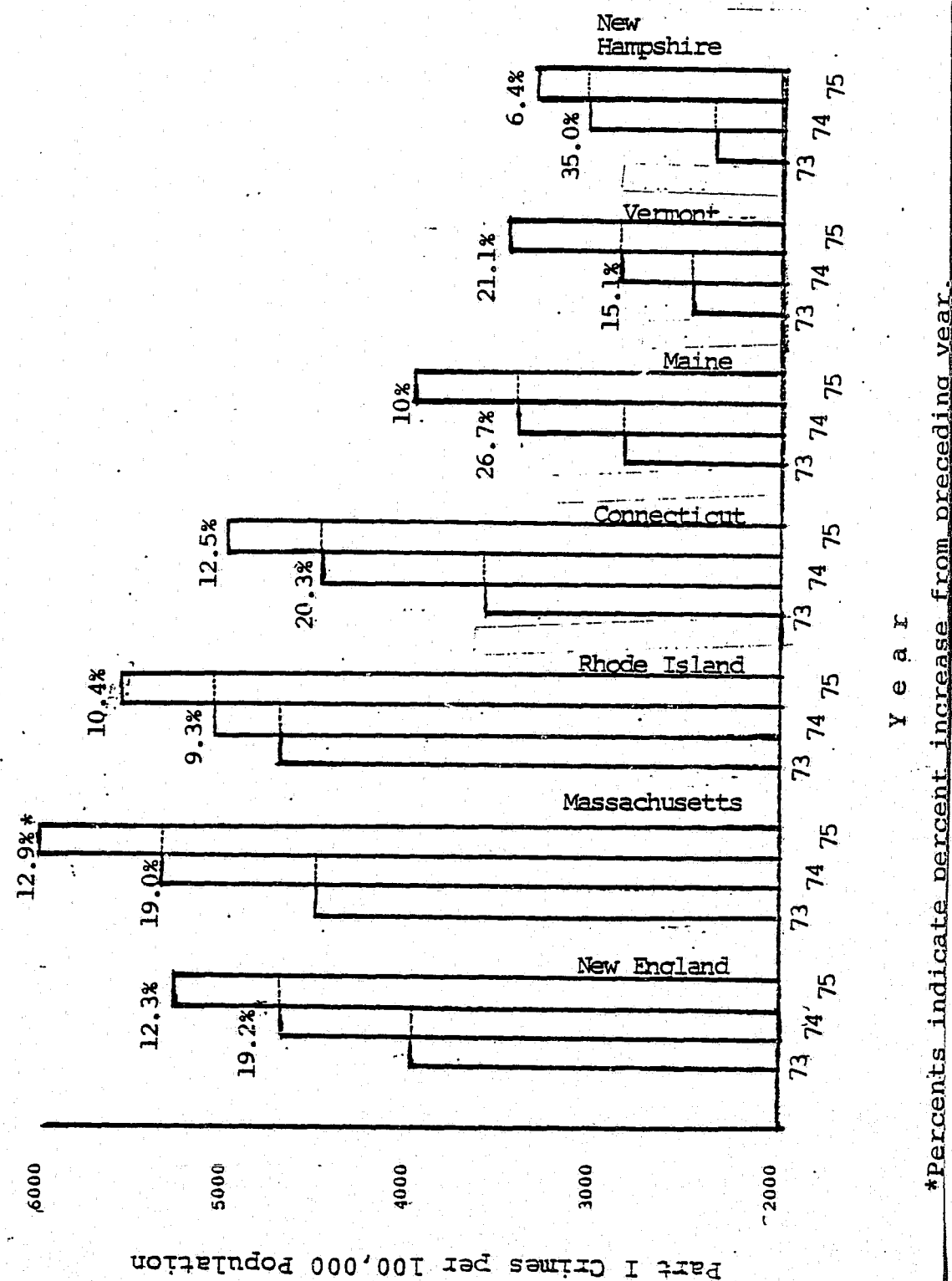


FIGURE 4-3

Total Index Crime Rates, 1973-1975, New England States



even declining in other years. These fluctuations, which are depicted in figures 4-4 and 4-5 result in part from the effects of cyclical variables such as unemployment which influence the crime rates and in part from random errors which affect all data on social phenomena. It therefore takes data for several years to verify the existence of a given trend in crime rates. This is important to remember when interpreting those tables and graphs based on crime rates for two or three years.

In almost every year from 1960-75 the crime rate increased more rapidly in Mass. than in the nation. This is illustrated in figures 4-4 and 4-5. While the curves for Mass. and the U.S. are generally similar in shape, Mass. crime rates fluctuate more widely than those for the U.S. It is likely that most other states would also show a greater fluctuation than the U.S. simply because the national figures consist of an average of state figures. When one state has a dramatically high increase in crime, it will often be off-set by another state with an unusually low increase. By the same reasoning, one would expect that individual cities and towns would show more dramatic changes in crime rates from year to year than the United States.

#### C. Crime in Massachusetts and the United States: Crimes of Violence

While crime indexes present an overview of the crime problem, one is often interested in knowing what is happening with the rates of specified crimes. This section will therefore be devoted to an analysis of the crimes of violence: murder, rape, robbery and aggravated assault. The next section will examine non-violent property crimes.

##### 1. Murder

The trends in murder rates in the United States and Massachusetts are shown in figure 4-6. While there has been an overall increase in both rates, Massachusetts rates are considerably lower than those of the United States and have been rising less rapidly than the United States rates.

##### 2. Forcible Rape

For rape, as for murder, Massachusetts has had consistently lower rates during the fifteen years between 1960-75, as seen in figure 4-7. The increase in rape in Massachusetts also appears to be more gradual than for the nation.

##### 3. Aggravated Assault

Aggravated assault rates are also lower for Massachusetts than for the United States as seen in figure 4-8. Unlike murder and rape, aggravated assaults have been increasing more rapidly in Massachusetts than in the United States. If this trend continues one would expect the Massachusetts rate to exceed that of the United States in the next few years.

FIGURE 4-4

Yearly Percent Change in Total Index Crime Rate, 1960-1975,  
Massachusetts and United States

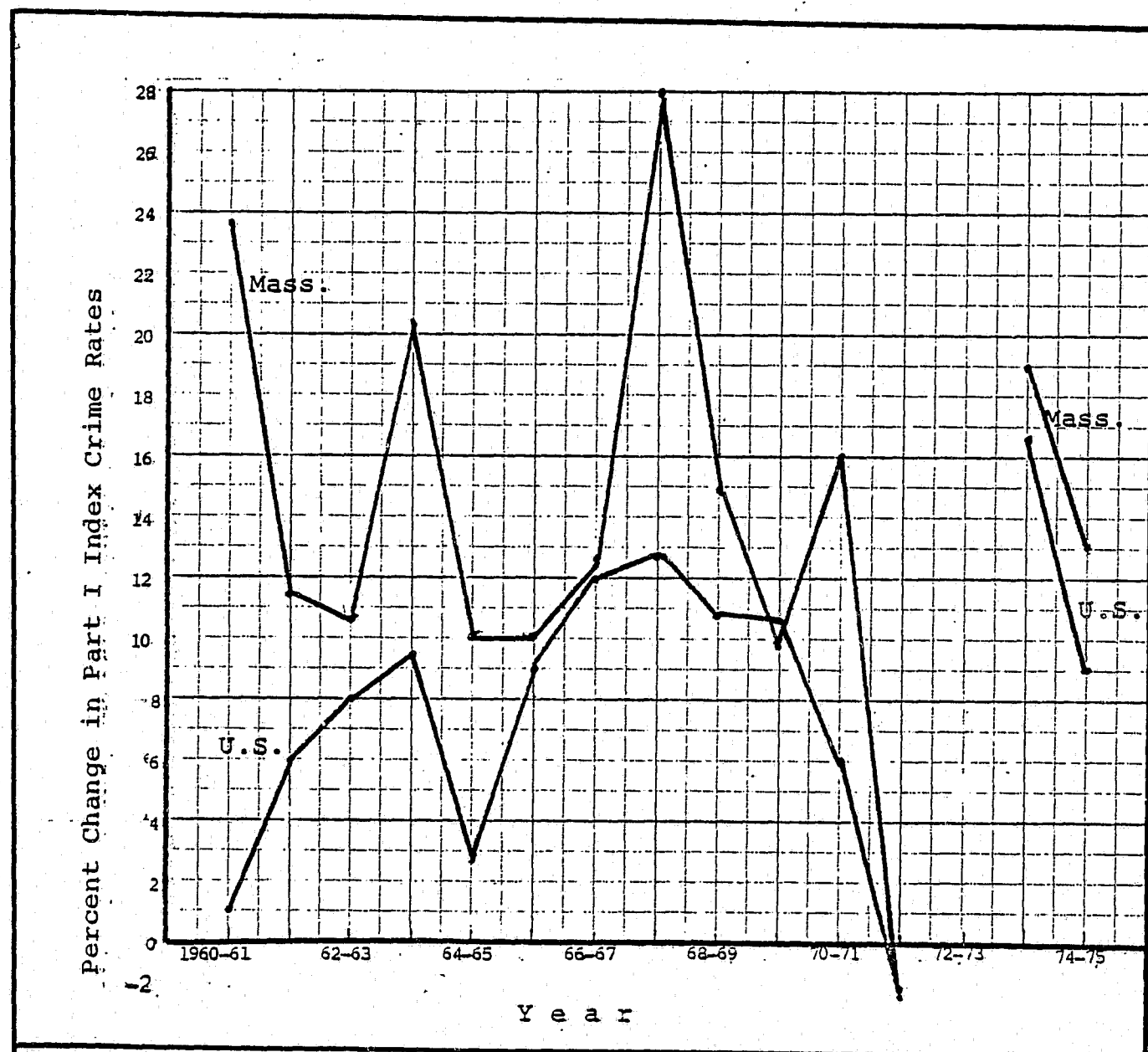


FIGURE 4-5

Yearly Percent Change in Seriousness Scale Crime Rates, 1960-1975,  
Massachusetts and United States

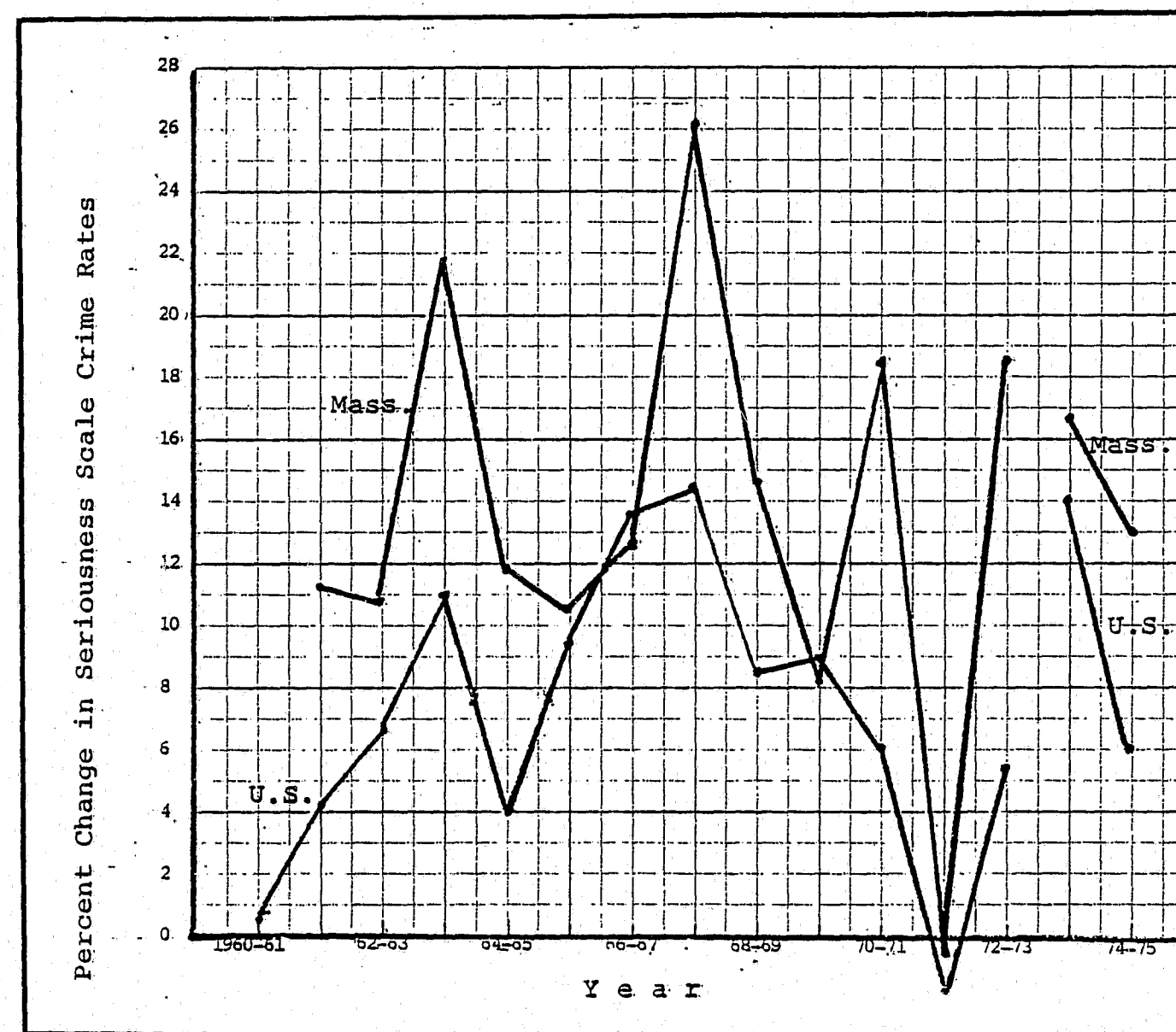


FIGURE 4-6  
Murder Rate, 1960-1975, Massachusetts and United States

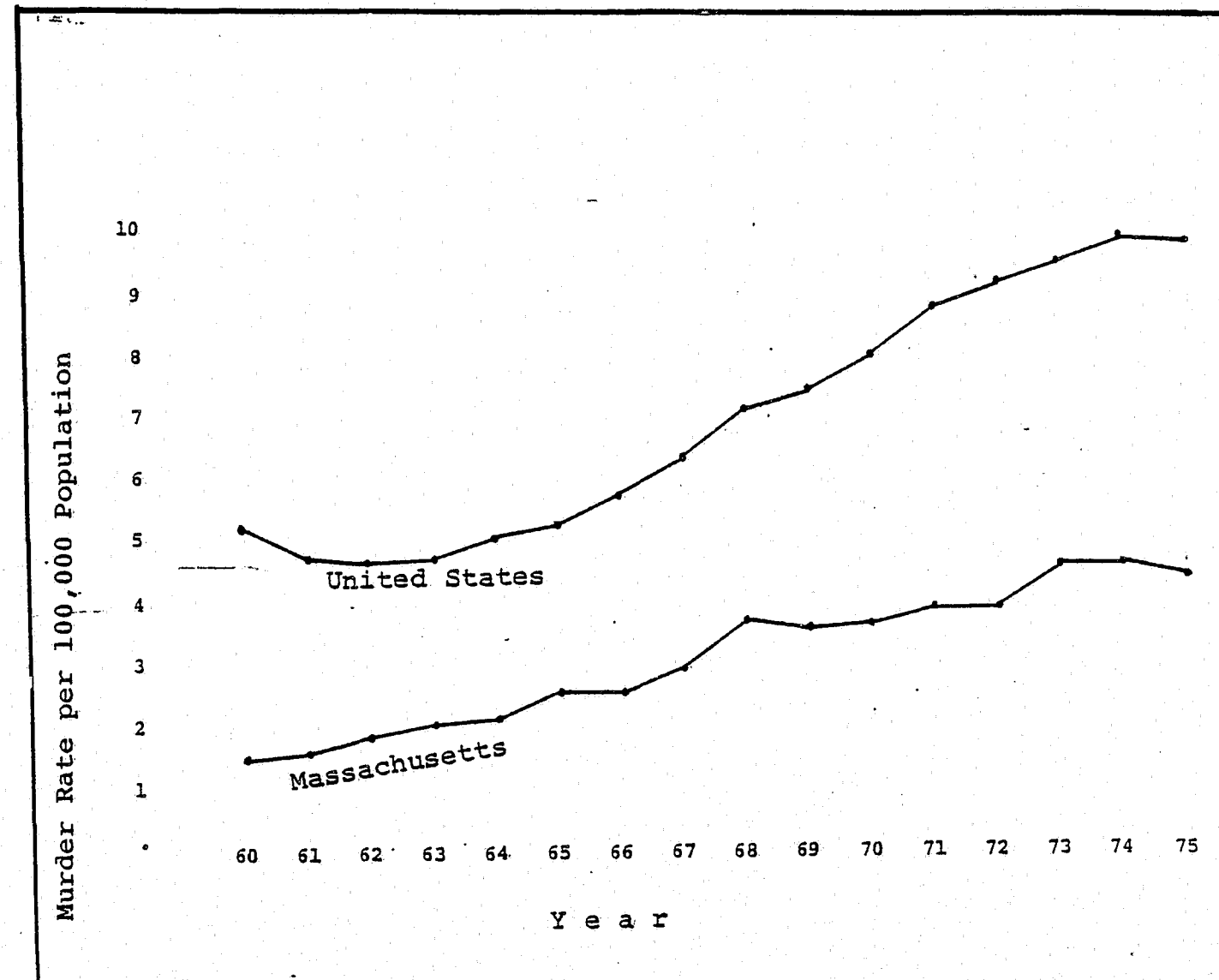


FIGURE 4-7  
Forcible Rape Rates, 1960-1975, Massachusetts and United States

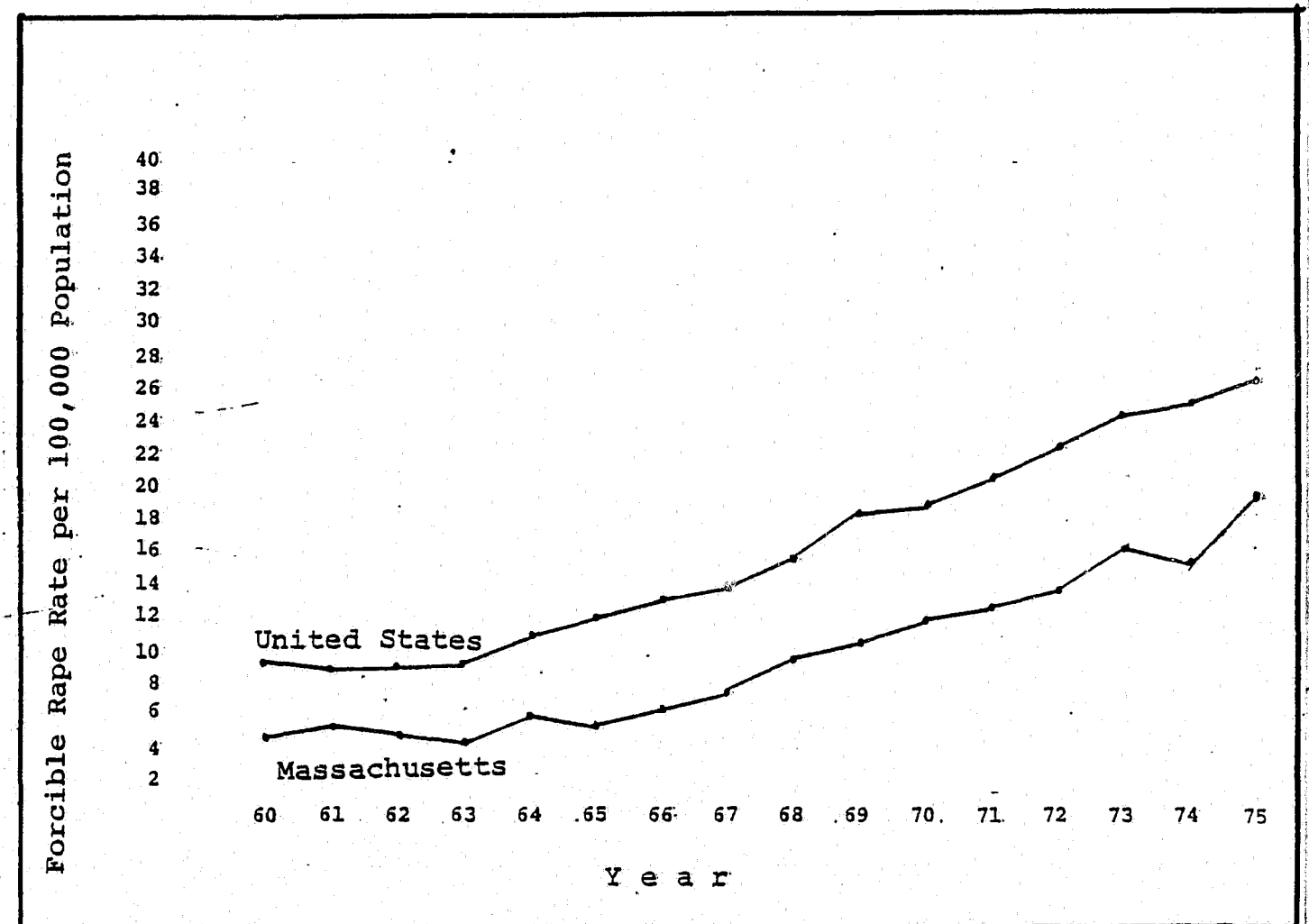
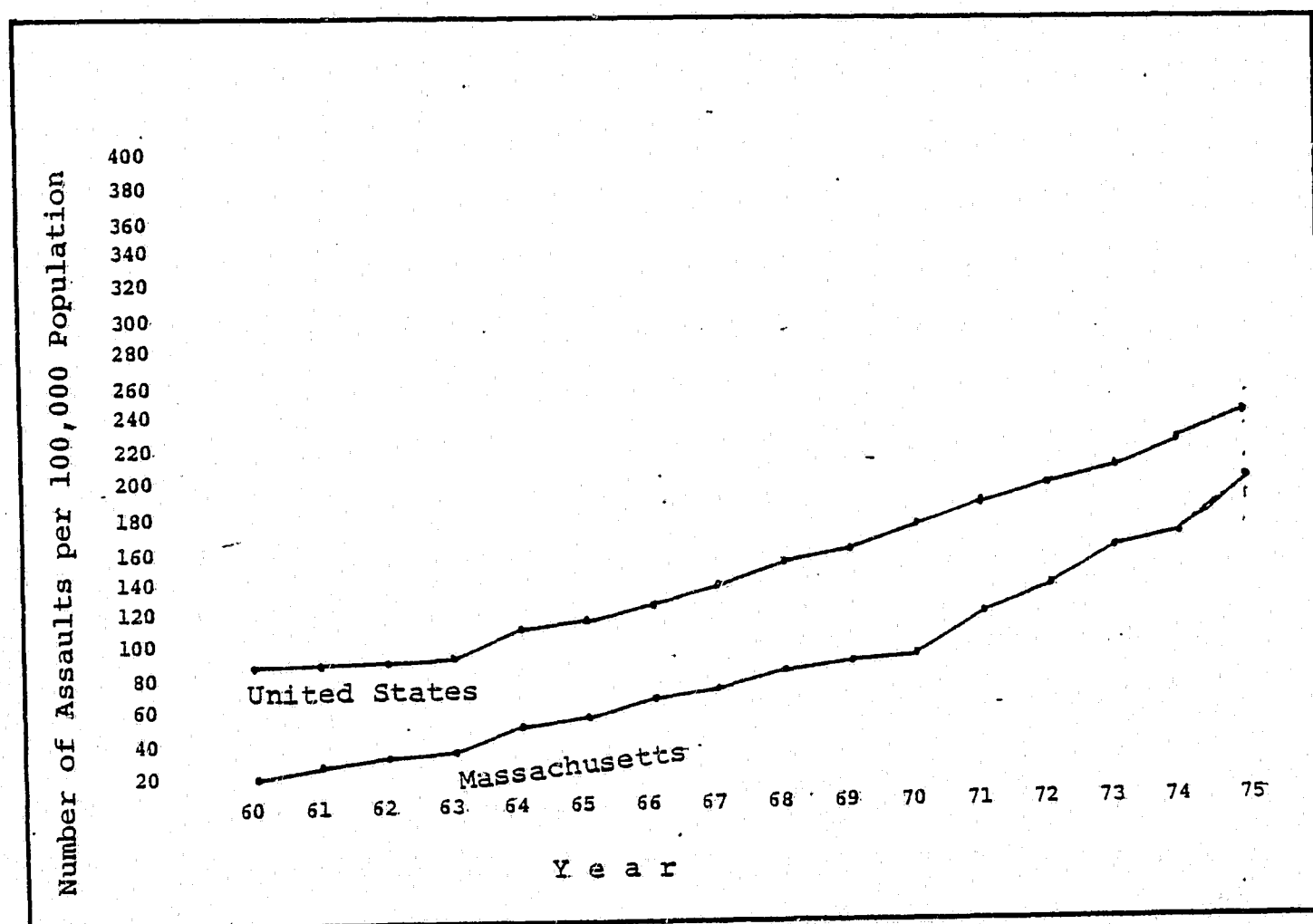




FIGURE 4-8

Aggravated Assault Rates, 1960-1975, Massachusetts and United States



#### 4. Robbery

Figure 4-9 indicates that robbery rates in Massachusetts were below those in the nation until 1973. 1974 and 1975 saw Massachusetts with a slightly higher rate than that for the United States.

#### 5. Comparison of the Trends in Violent Crime Rates

Figure 4-10 shows the percent increase in each of the violent crimes since 1968. It is seen there that there has been only a moderate increase in the murder rate during this time - approximately 20 percent in seven years. The rate for rape has doubled during this time, while the robbery rate has tripled. Aggravated assault was around two and one half times as frequent in 1975 as in 1968. Unfortunately, we do not at this point in time have sufficient information to explain why there is such a striking difference in rates of increase among these crimes. Among the possible explanations, which need exploring are the following: (1) Changes in the demographic characteristics of the population. It is known that certain individuals are more likely to commit certain types of crimes than are other individuals - e.g. young unemployed males are relatively likely to be involved in violent crimes, but relatively unlikely to be involved in embezzlement. Shifts in the demographic characteristics of a population can thus affect different crime rates in a different fashion. (2) Accuracy of the police reports to the F.B.I. have generally increased over the years. It is likely that increased accuracy has meant more careful recording of crime and thus an artificially inflated crime rate for latter years compared to earlier years. It is also likely that the police generally keep more accurate records on the more serious crimes than the less serious crimes. Thus, any inflation in crime rates due to more accurate police records would be more likely to affect the less serious crimes of robbery and assault than the crimes of murder and rape. (3) One of the major problems with the UCR statistics is that they only indicate crimes reported to the police. Yet, as discussed in Chapter Three, many crimes are not reported to the police. It is therefore possible that some of the observed crime increase is due to changes in people's tendency to report crime. Again, these changes do not necessarily affect all types of crime in the same way.

#### D. Crime in Massachusetts and the United States: Property Crime

In the last section crimes of violence were discussed. In this section emphasis will be on the property crimes: burglary, larceny and auto theft. It should be noted that robbery, could have been classified as a property crime, since it is presumably at least partly motivated by the same economic factors present in the non-violent property crimes.

##### 1. Burglary

Burglary rates were lower in Massachusetts prior to 1969 than in the United States, as illustrated in figure 4-11. From 1969-75, Massachusetts rates for burglary were higher. As has been true for all the crime rates, there has been a steady increase in burglaries

FIGURE 4-9

Robbery Rates, 1960-1975, Massachusetts and United States

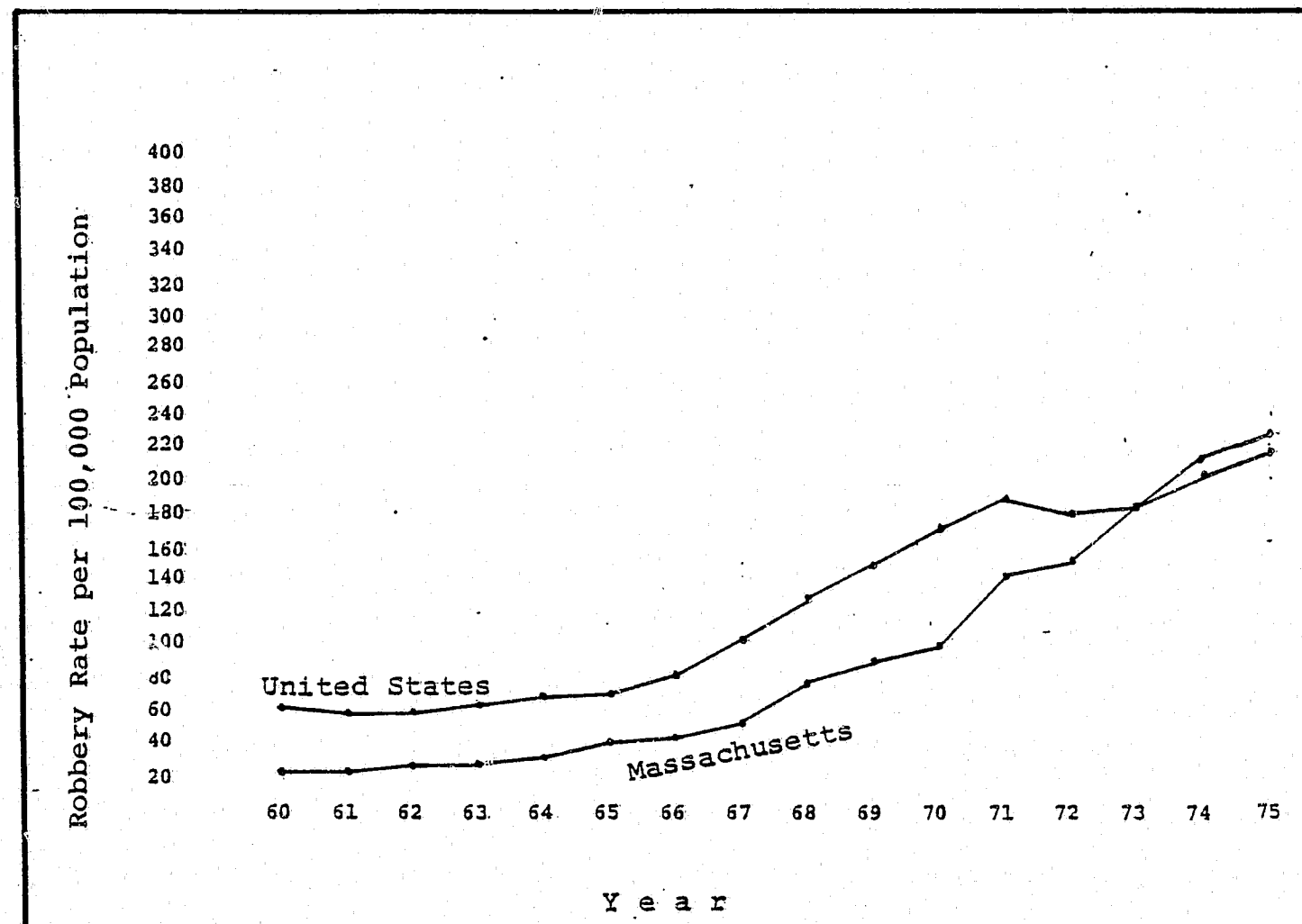


FIGURE 4-10

Total Percent Change in Violent Crime Rates, 1968-1975  
Massachusetts

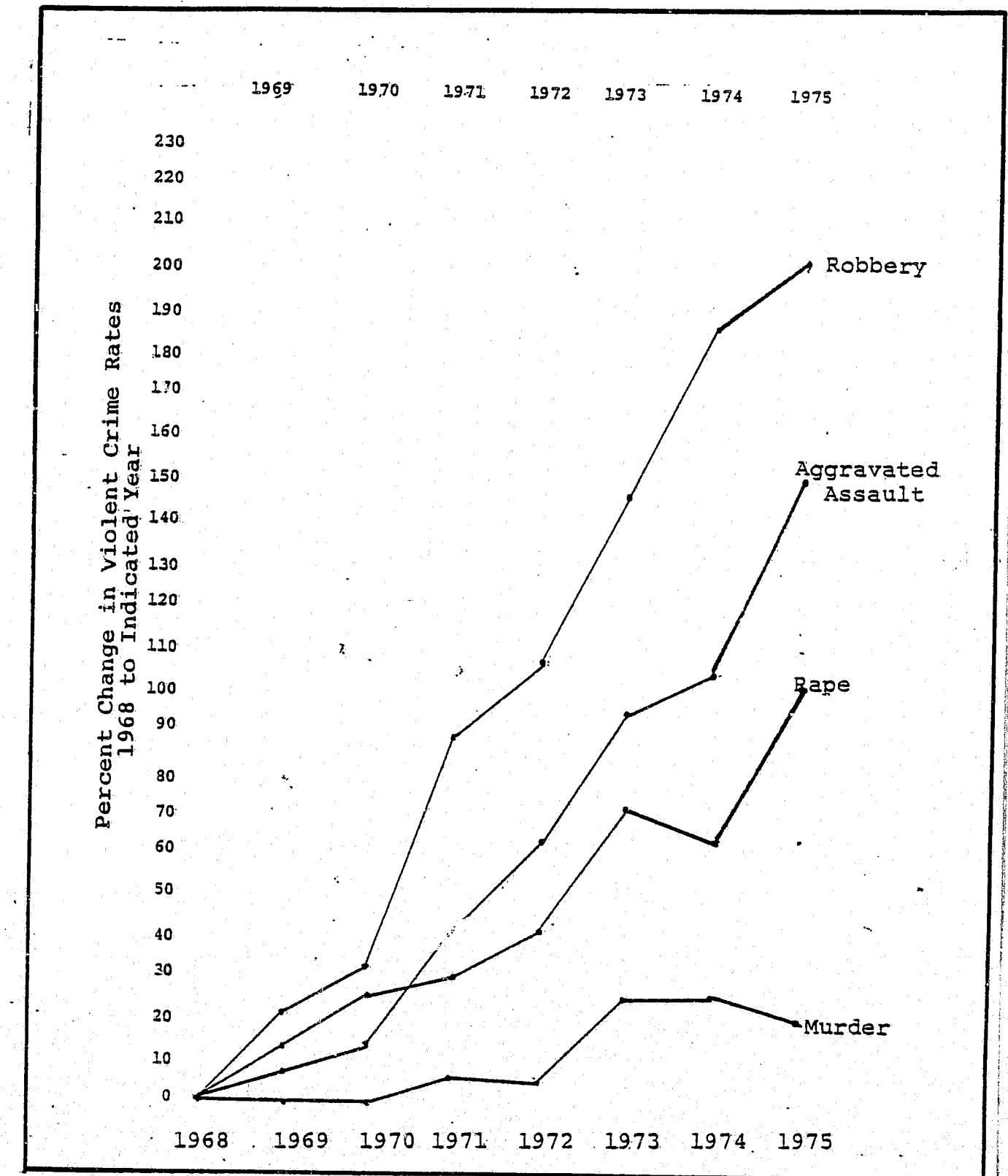
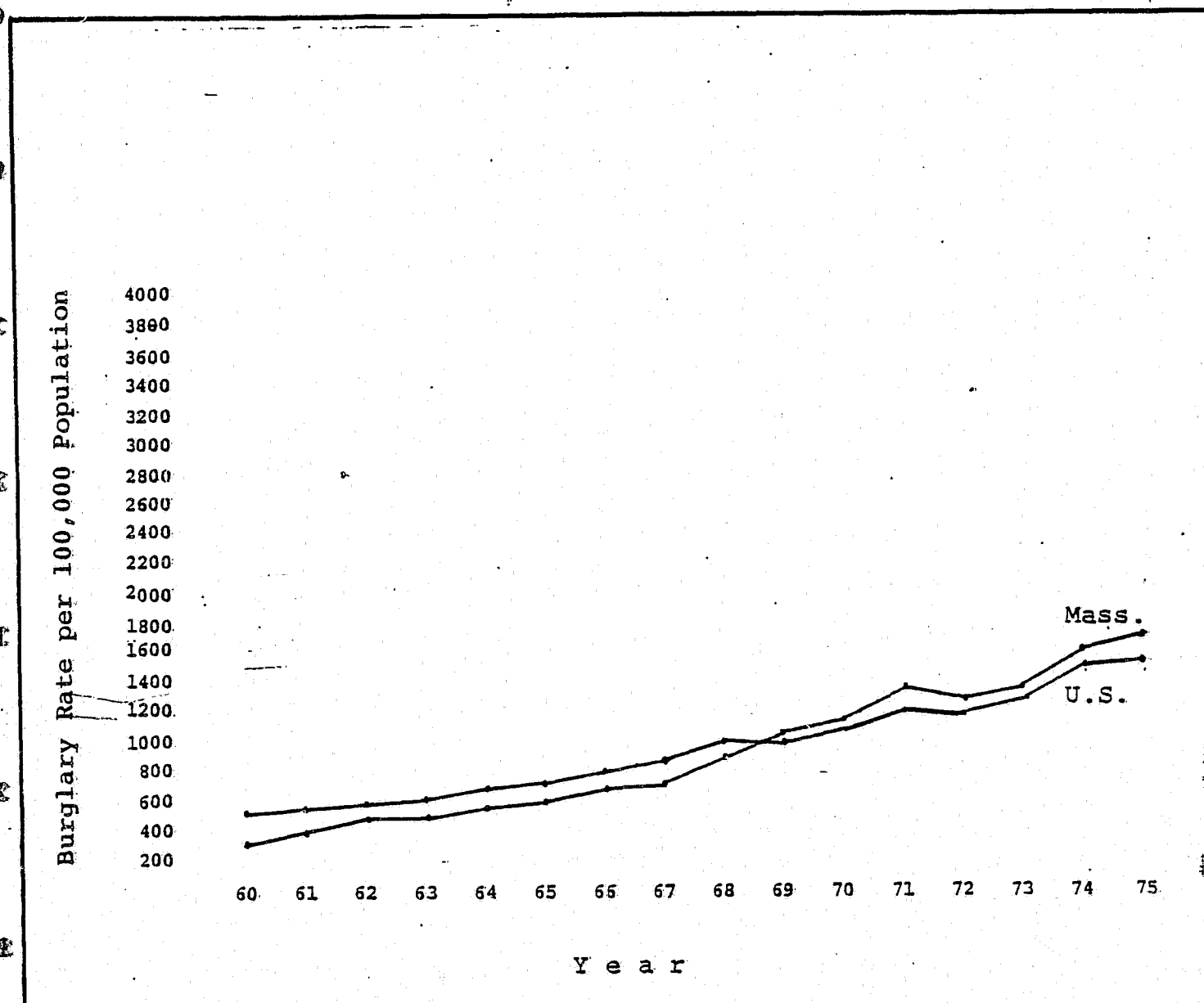


FIGURE 4-11

Burglary Rates, 1960-1975, Massachusetts & United States



in both Massachusetts and in the United States in the fifteen years ending in 1975.

## 2. Larceny

Due to the change in definition of larceny in 1973 to include all larcenies instead of only those over \$50, it is somewhat difficult to comment on larceny trends. The trend between 1960 and 1972 depicted in figure 4-12 looks similar to the patterns observed for robbery and burglary, i.e., Massachusetts rates started lower than those in the United States, but gradually approached the United States rates. However, between 1973 and 1975 the United States rates seem to be increasing more rapidly than those in Massachusetts.

## 3. Motor Vehicle Theft

Massachusetts has a motor vehicle theft rate much higher than that for the nation as a whole and the difference has been much more pronounced in recent years than in the past. This trend is illustrated in figure 4-13. As measured by deviation from the national norm, motor vehicle theft is certainly Massachusetts' most distinctive crime problem among those crimes examined here.

## 4. Comparison of Trends in Property Crime Rates

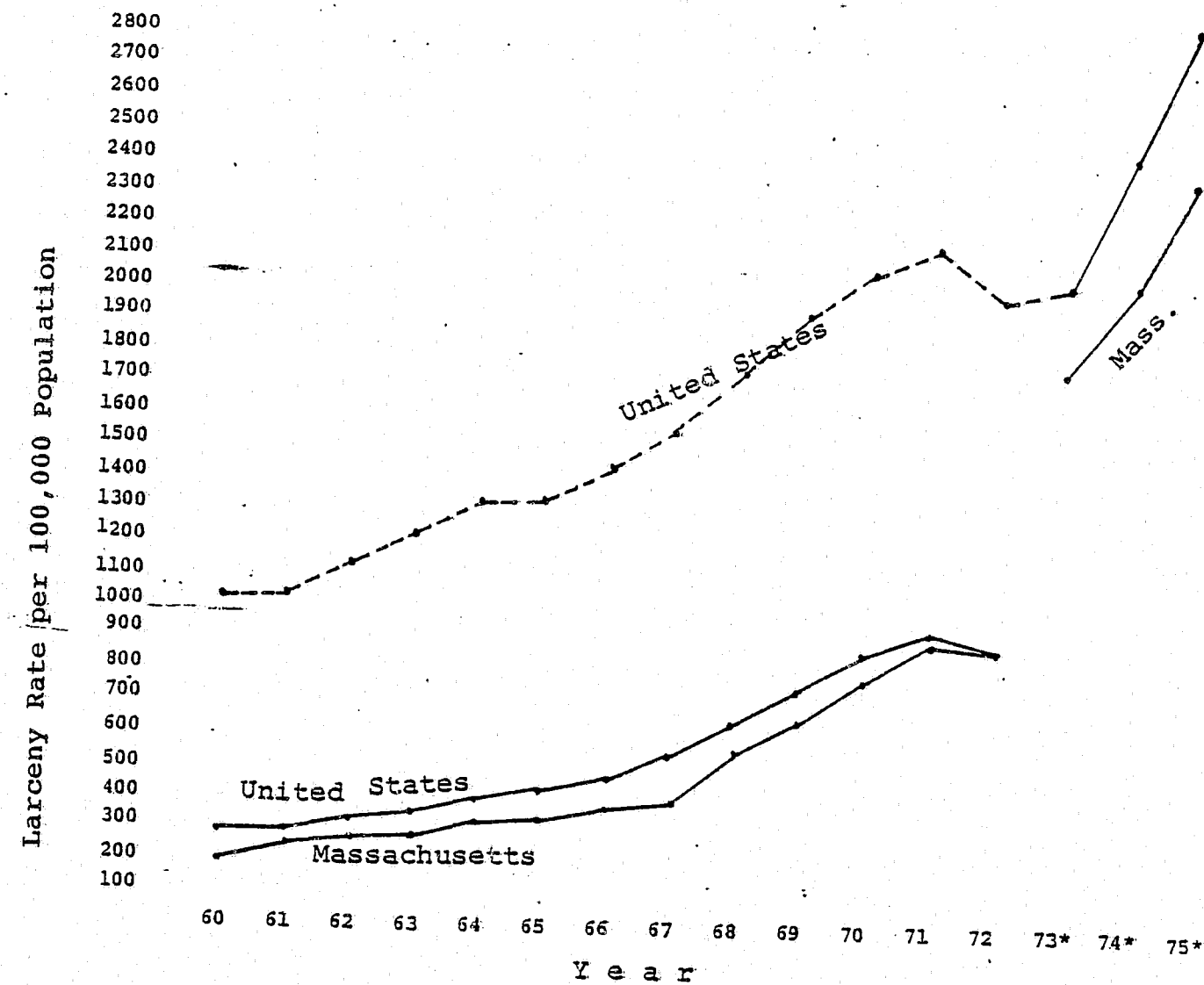
Figure 4-14 presents the comparison of the increase in non-violent property crime rates in Massachusetts for 1968 through 1975. It is seen there that increases in crime rates for these crimes are quite similar - both auto theft and burglary approximately doubled during this time. Larceny rates were increasing somewhat more rapidly through 1972. Because of the change in the definition of larceny in that year, the percentage increase in larceny rates cannot be computed for 1973, 1974 and 1975. The increases in non-violent property crimes are considerably lower than the increases for robbery and aggravated assault, roughly comparable to that for rape and considerably higher than that for murder.

## E. Changes in Crime Rates for Urban/Suburban Areas, 1974-1975

One question that frequently arises is whether crime is increasing more rapidly in suburban or urban areas. Figure 4-15 presents data which attempts to deal with this question at the national level between 1974 and 1975. Comparisons are made between suburban and nonsuburban cities excluding core cities (like Boston, New York, Philadelphia). Two generalizations can be made from this table: (1) Crime increase was generally higher in urban non-SMSA cities than in suburban cities, controlling for city population. (2) Crime increased more rapidly in smaller cities than in larger ones, controlling for whether the city was suburban. There are however, a number of exceptions to these overall patterns, which could be due to true differences in the patterning of crime changes or to the unreliability of the data (see Chapter One for a discussion of the problems with the UCR data).

FIGURE 4-12

Larceny Rates, Massachusetts and United States, \$50 & over,  
1960-1972, All Larceny, 1973-1975



The dashed line indicates the total larceny rates for the U.S. prior to 1972. \*1973-1975 rates for Mass. are total larcenies.

FIGURE 4-13

Motor Vehicle Theft Rates, 1960-1975, Massachusetts &  
United States

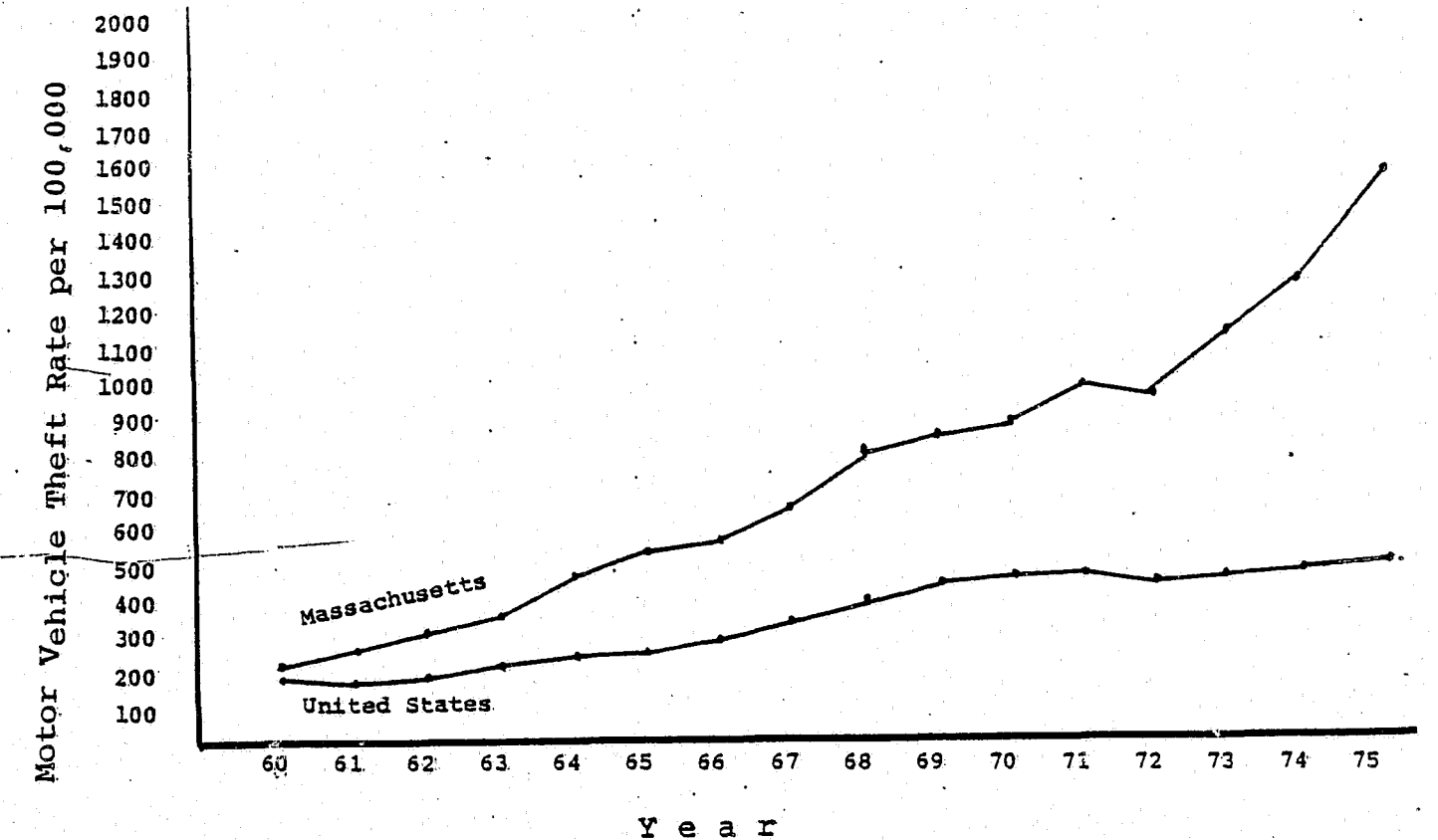
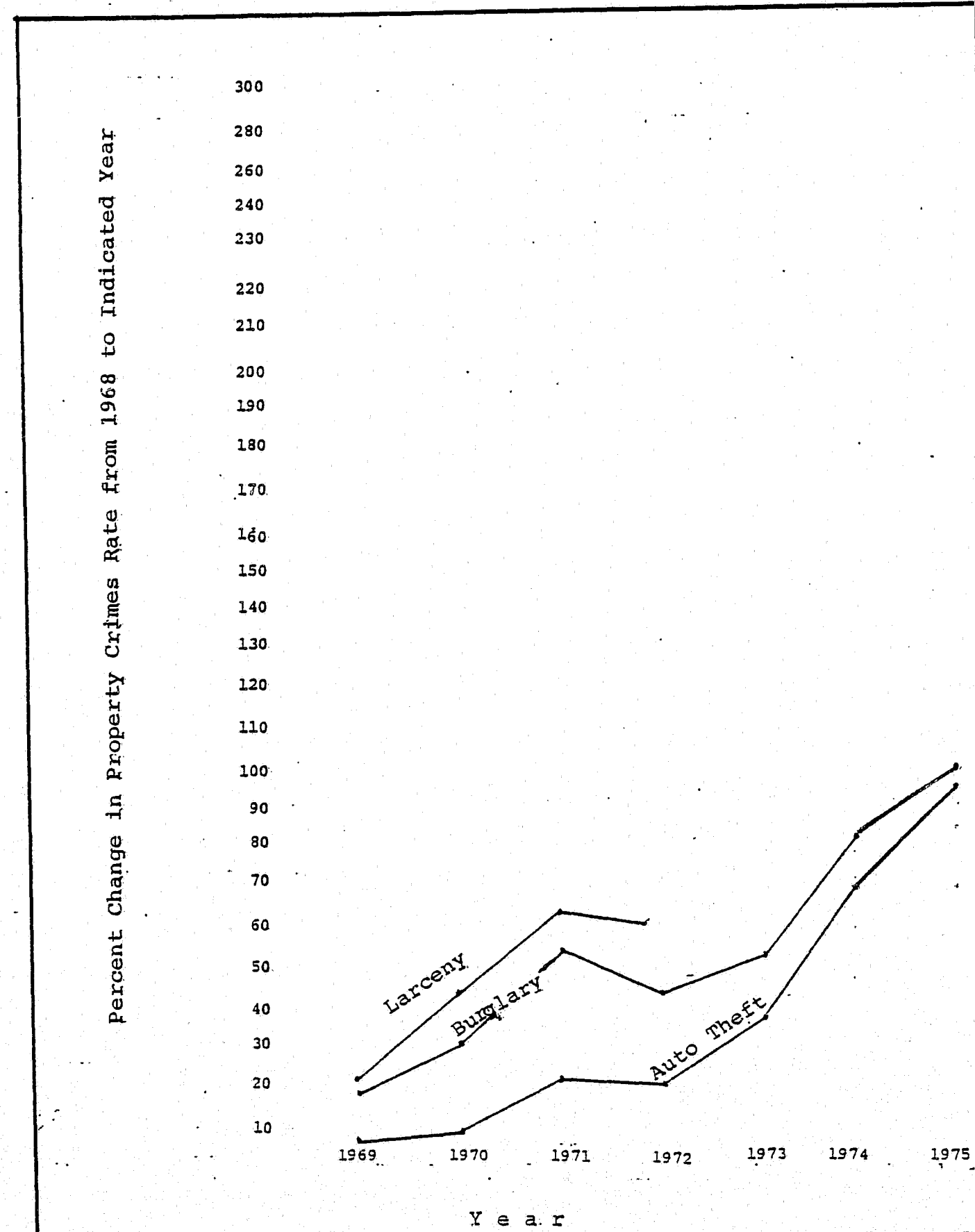


FIGURE 4-14

Total Percent Change in Property Crime Rates, 1968-1975,  
Massachusetts



Graphing crime trends for suburban and nonsuburban cities in the United States between 1966 and 1976 does not show significant differences in the rate of change in crime during those years, as illustrated in figure 4-16. It would, of course, be interesting to also graph the trend for core cities for those years. However, the necessary data was not readily available.

An attempt was made to analyze the change in crime between 1974 and 1975 in Massachusetts with a suburban/nonsuburban categorization. The results, which are presented in Appendix A, are, however, of extremely questionable reliability. These data, share the general problems of the UCR data explained in the introductory chapter. There are some additional problems here that make this particular data even more unreliable than most of the tables based on the UCR data: (1) significant sampling error exists in some of these categories due to the non-reporting of these cities. (2) When the difference between two variables are examined, measurement error for the difference score tends to be greater than for either of the variables considered separately. E.g., suppose in a given area there were 10,000 index crimes reported to the police during 1974 and 11,000 during 1975. Further, assume that the various sources of error in reporting these figures result in their being "off" by as much as 10 percent, i.e., in 1974 the UCR figures would be between 9,000 and 11,000 and in 1975 they would be between 9900 and 12,000. Under these assumptions the true change in the two years would be 1,000 but reported change could vary from 1,100 to 3,100. Thus, a ten percent error in the reported figures for each year becomes a 210 percent error in the different figures.<sup>1</sup> Of course, these figures are only meant as an example - the exact amount of measurement error is not known for the UCR data. It is safe to assume, however, that it is not negligible.

Because of the preceding data problems, it is difficult to interpret the Massachusetts data on suburban/urban crime changes. The data does not show easily interpretable patterns, presumably because of the large error component in these figures. It is hoped that more meaningful results can be obtained at a later date by examining longer term trends in Massachusetts.

#### Chapter Summary

This chapter has indicated that crime increased significantly in both Massachusetts and the United States during the fifteen years between 1960 and 1975. However, the annual rate of change in crime has shown considerable fluctuation from year to year.

Total crime in Massachusetts has been increasing more rapidly than crime in the United States. The relative increases, however,

1

This oversimplifies the situation somewhat, since it is, of course more unlikely that the figures will be at opposite extremes both years than that the figure will be at an extreme one year. The interested reader is referred to Chester W. Harris, Problems in Measuring Change.



FIGURE 4-15  
Crime Trends 1974-1975, Urban & Suburban U.S.

Crime Trends 1974-1975, Urban & Suburban, U.S.

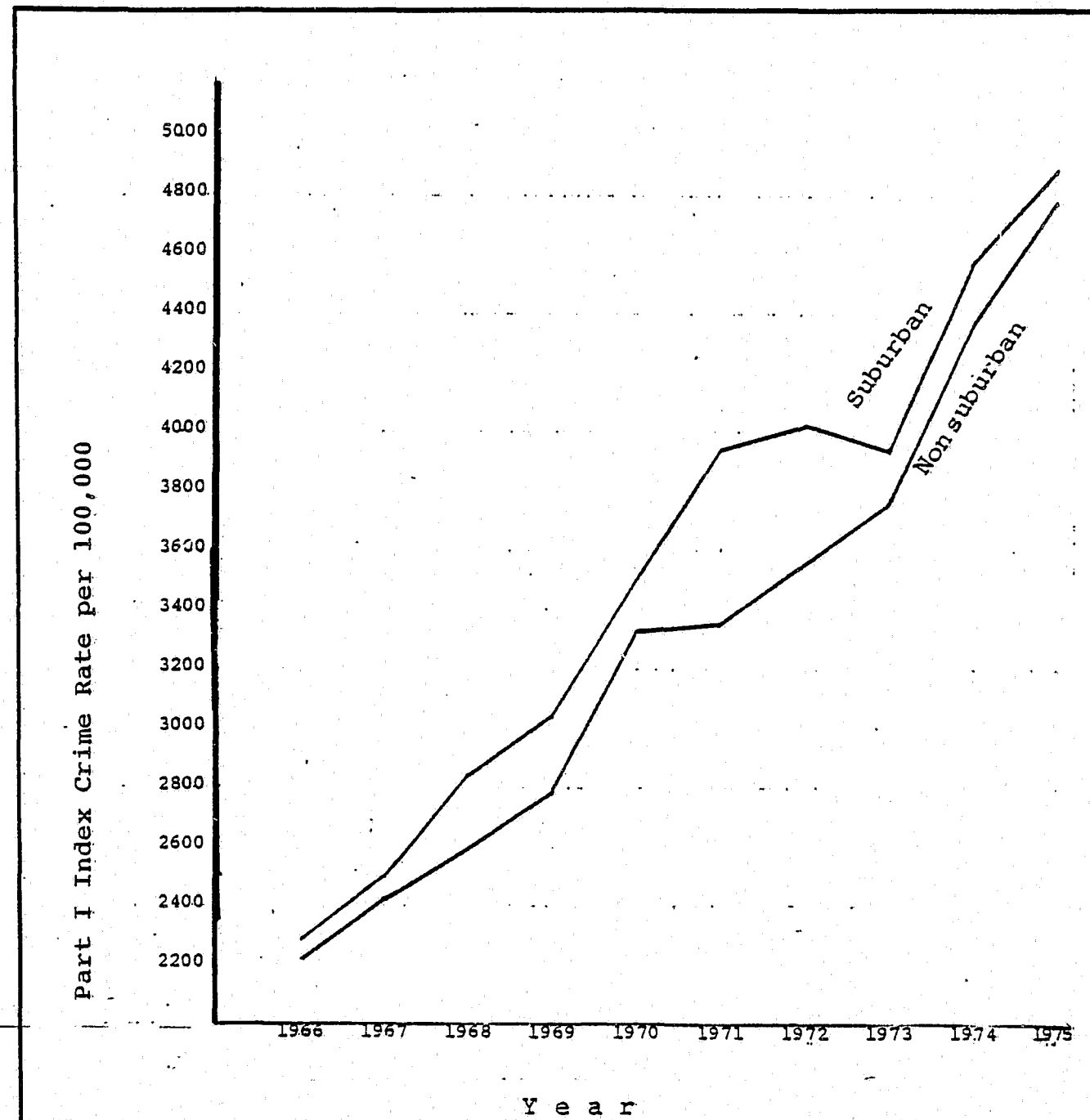
	Total		% Change 1974 - 1975**					
			25,000-50,000		10,000-25,000		<10,000	
	Subur- ban	Urban*	Sub.	Urban	Sub.	Urban	Sub.	Urban
Total Crime	9.4	10.8	8.6	9.2	9.8	11.9	10.1	12.4
Violent Crime	6.0	8.2	4.0	4.9	7.6	12.5	6.9	9.0
Property Crime	9.6	11.0	8.9	9.5	9.9	11.9	10.3	12.6
Homicide	2.2	-4.4	-.1	1.6	2.0	-6.4	-6.7	11.3
Rape	4.7	1.5	8.2	5.3	1.2	1.2	4.5	5.5
Robbery	7.0	7.7	5.2	4.4	9.5	8.2	6.7	19.8
Aggravated Assault	5.6	9.2	2.9	5.0	7.3	15.5	7.2	8.3
Burglary	7.2	7.3	6.8	6.3	7.6	7.5	7.3	8.8
Larceny	11.3	13.2	10.4	11.5	11.5	14.0	12.4	15.0
Auto Theft	4.4	3.3	5.2	2.1	4.6	5.6	1.6	2.8

\* Outside SMSA's

\*\*Total crime index change for over 1 million was 6.3 for cities.. For cities 500,000 to 1 million 8.8, 250 to 500,000=7.6, 100,000-250,000=7.6, 50,000 to 100,000=9.0

FIGURE 4-16

Total Index Crime Rates, 1966-1975, United States  
Suburban & Nonsuburban Cities Excluding  
Core Cities



have not been identical for all crimes. Rape and murder rates have been rising less rapidly in Massachusetts than in the nation, while the rates for aggravated assaults, robbery, burglary, larceny and auto theft have been growing more rapidly.

In addition to comparing trends in the crime rates in Massachusetts and the United States, this chapter compared Massachusetts with New England. The overall crime increase in Massachusetts was seen to be approximately the same as for the region.

An attempt was made to examine changes in suburban and nonsuburban cities - however, adequate data was not available for Massachusetts. The national data, which excluded core cities, did not confirm the popular notion that crime is growing faster in suburban than non-suburban cities.

**END**