OFFICE OF POLICY ANALYSIS, RESEARCH & STATISTICAL SERVICES

DEMOGRAPHICALLY DISAGGREGATED MALE FELONY ARREST TRENDS:
NEW YORK STATE (1970 - 1984)

September, 1986

NEW YORK STATE

DIVISION OF CRIMINAL JUSTICE SERVICES

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EXECUTIVE SUMMARY

This report examines the patterns of change in felony arrests for adult males in New York State during the 15-year period, 1970-1984. Patterns of change are examined separately by crime type and demographic subgroups based on region, race, and age. In addition to specifying how and when arrests changed, the analysis focuses on how patterns of change differed across subgroups.

The report also examines the changes in the New York State population during this 15-year period and explores the relationship between arrest trends and changes in the size and makeup of the general population.

Arrest Trends

- Simple comparisons between 1970 arrests and 1984 arrests do not convey the extent of change taking place over this time period. The analysis of monthly arrest counts and rates indicates that these series have shown periods of both growth and decline over the 15 years.

- These patterns of change were unique for each subgroup examined. The location of turning points, the amount of change, and the direction of change varied by region, race, age, and crime types. Trends in arrest counts are displayed in Figures 1-9 (pages 13-21) and Figures 10-13 (pages 24-27).

- The patterns of change in felony arrest rates were very similar to the patterns of change in felony arrest counts. The rates of change were also found to be quite similar within particular time periods. Since changes in population size are gradual, any sharp increases or decreases in counts are necessarily reflected in the rates as well. Trends in arrest rates are displayed in Figures 18-30 (pages 40-52).

Differences Among Subpopulations

- Arrest rates differed by region, race and age. An analysis by year indicated that the magnitude of the differences varied slightly over time.

  - New York City's adult felony arrest rate was 3 times that of either the Suburban area surrounding New York City, or the Upstate region.

  - Averaged across the 15-year period, the non-White average arrest rate was 5.5 times that of the White group statewide. This difference was less in New York City (3.5 times), greater in the Suburban area (6.4 times), and greatest in the Upstate area (6.8 times). This ratio decreased over the 15-year period, but remains at very high levels.

- In each region of the State, young adults 16-19 years of age had the highest arrest rates. Arrest rates declined with increasing age. The 15-year average arrest rate for 16-19 year olds was 1.3 times that of 20-24 year olds and over 14 times the arrest rate of those 40 years of age and older.

- Yearly arrest rates for those without prior felony convictions at the time of the arrest were moderately variable over the 15-year period but did not exhibit any overall trend. The patterns of change were found to be quite similar across regions, races and ages, after adjusting for differences in absolute rates.

- Yearly arrest rates for those with prior felony convictions at the time of the arrest had varied widely around the 15-year average arrest rate; in each region of the State for each race and age group the rates showed a clear upward trend over the time period. Increases were most evident among the series for 16-19 year olds. These upward trends may simply reflect an increase in the "at risk" pool (persons with prior felony convictions), which is not accurately reflected in the method used to calculate the rates. Future research will address this issue.

- The aggregate differences in arrest rate trends between those with and without prior felony convictions were also present within the specific crime types of person offenses, property offenses and robbery offenses. For each of these crimes there was a clear upward trend in arrest rates for offenders with prior felony convictions but not for offenders without prior felony convictions. A similar pattern was noted for drug arrest rates in New York City. Drug arrest rates in the Upstate and Suburban regions fluctuated considerably, but exhibited no clear trends either for those with or those without prior felony convictions.

- The demographic makeup of New York State's "adult" population changed considerably between 1970 and 1984 due to shifts in the distribution of the population by region, race and age. New York City's male population declined nearly 7 percent, while the other regions of the State experienced growth in population. The decline in New York City was limited to the White racial group, where a 16 percent decrease was recorded. The non-White racial group experienced strong growth in population in each region of the State - up 38 percent Statewide. All three regions of the State (New York City, Suburban New York City and Upstate New York) lost population in the 16-19 age group. This loss was restricted to the White racial group.

Impact of Demographic Structure on Arrest Trends

o Changes in population size and composition in New York State contributed to the changes in felony arrest counts between 1970 and 1984, but changes in arrest rates within demographic subgroups were responsible for the largest single effect. This finding held true both for the simple difference between 1970 and 1984 counts and for the average of all 14 year-to-year changes.

To gauge the possible impact of each factor on changes in arrest counts hypothetical scenarios were constructed that allowed specified factors to change while others were held constant. An example of this process appears below:

Suppose one wanted to evaluate the impact of change in the aggregate population size and in the aggregate arrest rate on the observed change in arrest counts between 1970 and 1984. The hypothetical aggregate count to be expected in 1984 due to a change in the aggregate population size can be calculated as follows:

Hypothetical Count (1984) = Agg. Rate (1970) x Agg. Population (1984)

(change in pop, constant rate)

Likewise the aggregate count to be expected in 1984 due to a change in the aggregate rate of arrest alone can be calculated as follows:

Hypothetical Count (1984) = Agg. Rate (1984) x Agg. Population (1970)

(change in rate, constant pop)

Each of these can be compared to the actual arrest count in 1984. The ratio of the differences [Hypothetical Count (1984) - Count (1970)] and [Actual Count (1984) - Count (1970)] expresses the proportion of the observed change that is attributed to the factor allowed to change in the hypothetical scenario.

This logic was extended to test the impact of changes in the population composition in terms of age and race as well as the impact of aggregate population size and demographic-specific rates on arrest counts between 1970 and 1984. This led to the following results:

a) Changes in aggregate population size accounted for 10 percent of the change in arrest counts.

b) Changes in the age distribution (irrespective of the population size) accounted for over 16 percent of the increase in arrests.

c) Changes in the racial distribution of the New York State population accounted for 26 percent of the change in arrest counts. (Again this excludes the effects of any change in aggregate population size.)

d) The combination of changes in the joint age and race distribution and changes in aggregate population size together accounted for 51 percent of the observed change in arrest counts.

e) The single largest factor affecting the change in arrest counts was the change in age- and race-specific arrest rates. Almost 48 percent of the change in arrest counts was accounted for by this factor.

This report examines changes in arrest counts and rates. It is not clear how well the findings of this report reflect the changes that have occurred in crimes committed in New York State. Arrests represent an official response to crime and are subject to change for a number of reasons beyond changes in the crime level. Changes in police priorities, resources, and individual police officer's attitudes and behavior influence the types and numbers of arrests made. The relationship between arrest rates and crime rates is not addressed in this report. While changes in age- and race- specific arrest rates have been shown to be the largest single factor affecting changes in arrest counts, it is not clear why these rates have changed over time. The Office of Policy Analysis, Research and Statistical Services is presently studying these issues in an effort to better understand the factors that influence crime and improve the ability to forecast criminal justice system workload.

INTRODUCTION

The decade of the seventies was a period of great change in New York State, especially with regard to crime and the administration of justice. The philosophical climate changed from an emphasis on rehabilitation in sentencing to a more punitive focus. The move to "get tough on crime" was evident in the major legislative revisions to the Penal Law enacted during that decade. In 1973, the so-called "Rockefeller Drugs Laws" were enacted which provided much stiffer penalties for drug crimes. In this same year, mandatory prison terms for second felony offenders were reinstituted in New York State in an effort to curb repeat offenders. While revisions in 1975, 1977, and 1979 softened the impact of the original drug legislation, other legislative activity increased the penalties for certain types of crime. In 1978, the new crime classification of "violent felony offense" was created. Under this legislation restrictions were placed on charge reduction and other forms of plea bargaining. Individuals imprisoned for such offenses faced the potential for longer indeterminate sentences than individuals convicted of non-violent felonies of the same statutory class. With the gun control legislation of 1980, certain weapons offenses were added to the list of violent felonies.[1]

During this same time period, New York State undertook a number of program initiatives to attack the crime problem. Special emphasis was placed on repeat offenders and crimes involving violence, drug crimes and the use of weapons. Extra resources were provided to law enforcement, prosecution, and courts to more effectively deal with the increasing workload of the criminal justice system. Federal monies from the Law Enforcement Assistance Administration provided much of the financial assistance for these efforts. As Federal assistance declined in the late seventies and early eighties, New York State and its localities faced an increasing financial burden in an effort to provide public protection. A budget crisis in New York City required dramatic reduction in police manpower at the start of its fiscal year in 1975. State budgetary problems also surfaced during this same time period.

How adult felony arrests changed during this volatile period is the subject of this report. Specifically, the report examines demographically-disaggregated arrest trends for the 15-year period from 1970 through 1984. Besides providing detailed descriptive information on the trends within region, race, age, and crime groups, the report explores the relationship of arrest trends to changes in the general population of New York State. Also undertaken is an examination of the stability of arrest rates and their utility for forecasting criminal justice system workload.

The Demographic Hypothesis

As all this legislative and program activity in the area of criminal justice was taking place, the demographic profile of New York State also was undergoing change. The "baby boom" children, consisting of the large numbers of persons born after the end of World War II and before 1960, were entering the crime-prone ages during the seventies and reaching adulthood for purposes of New York State criminal law. Shifts in population along racial and regional dimensions also occurred during this period. How much these changes may have

affected crime and arrests is not clear, although some research suggests that it may have had a substantial influence.

An often-cited explanation for the changes in crime and arrest counts over the last couple of decades has been the demographic hypothesis. The total volume of crime is seen as a function of the individual offending rate within each demographic group, the structure of the general population in terms of the demographic groups, and the size of the general population. When arrest volume is examined, a further factor that must be taken into account is the likelihood that an arrest occurs within a demographic group in response to a crime. A change in any one or combination of these factors may result in a change in the total volume of arrests.[2] Shifts in the age composition, the racial composition, and in the percent living in urban areas have been offered as specific correlates.

The available research on this topic has provided inconsistent conclusions. Sagi and Wellford (1968, pp. 30-31) adjusted for changes in the age distribution and population size between 1958 and 1964 and concluded that approximately 25 percent of the increase in the "offense ratio" could be attributed to changes in the age composition. In an extension of this analysis through the year 1969, Wellford (1973, p. 63) found that changes in age composition were equated with 45 percent of the increase in crimes beyond that which could be attributed to population growth .

Urbanization and age redistribution were both associated with changes in crimes and arrests between 1950 and 1965. Ferdinand (1970, p. 170) attributed 25 percent of the increase in the total volume of offenses known to the police to shifts in the proportion of Americans living in urban areas . Changes in the age distribution (10-24, over 24) were thought to be solely responsible for 11.6 percent of the change in total arrests between 1950 and 1965.

A more sophisticated study by Fox (1978) used econometric methods to build statistical models of violent crime and property crime rates for the period 1950-1972. He found that the percent of the population that was young and non-White, was significantly related to changes in both these crime rates (Fox 1978, p. 45). He observed that the large trend shift occurring in the violent crime rate in 1963 and the property crime rate in 1962 could "largely be attributed to a sudden upsurge in the proportion on non-White teenagers (that is, those aged 14 to 21) who were born during the post-World War II baby boom" (Fox 1978, p. 74).

Other researchers have concluded that age structure has had little impact on crime rates. Barnett, Kleitman and Larson (1975), in their analysis of national homicide rates for the period 1964-1972, found that consideration of changes in the age and ethnic profile of the United States population explained no more than 10 percent of the increase in homicides. They concluded that they had no clear understanding of the causes of the upward trend in homicides (Barnett, Kleitman and Larson 1975, p. 98).

Land and Felson (1976) found that the property crime rate from 1947-1972 was related to the percentage of the population that was male aged 15-24, but that it was the least significant factor when inflation and prosperity indices were included in their regression analysis. Their analysis of violent crime rates, which included the property rate as a predictor, indicated that the net effect of age structure was negligible, as were those for the indices of unemployment and inflation (Land and Felson 1976, pp. 592-593).

In an analysis of monthly homicide offenses occurring in Chicago from 1965 through 1976, Block and Block (1980, p. 27) found little evidence to support the demographic hypothesis. Their findings were based on comparisons of models established by using time series pattern description techniques. Changes in the age and racial structure of the population were not related to corresponding changes in the number of homicides committed.

Unlike these past research efforts that have studied changes in crimes known to the police, the present report examines changes in the number of arrests and in the arrest rates within various demographic groups. Arrests were chosen for analysis since they represent the first stage of formal offender processing in the criminal justice system. Efforts to develop systemwide models require some understanding of the changes that have taken place in this very important step in the process.

Arrest analyses have a further advantage over analyses of crimes known to the police; reasonably accurate demographic information is available for the individuals arrested. Information is presented showing that the composition of the New York State population has changed over the period under study. How such changes may have influenced the number of arrests over time can be explored without having to make assumptions about the demographic distribution of crimes. Understanding such influences will enhance the ability to make reasonable forecasts of future arrest activity.

Data Sources

The data on felony arrests were obtained from the Computerized Criminal History/Offender-Based Transaction Statistics data system maintained by the New York State Division of Criminal Justice Services (DCJS). In New York State, the law requires that all persons arrested for a felony be fingerprinted by the arresting agency on a form provided by DCJS. This form (DCJS-2) contains identifying information on the individual, the arrest charges, arresting agency, and date of arrest. These fingerprint forms are then sent to DCJS and the information entered into the statewide Computerized Criminal History (CCH) data system. Only adult felony arrest events are included in this report. In New York State, events in which the arrestees are 16 years or older at the time of the crime are considered adult arrests for purposes of prosecution. In this report the unit of analysis is the arrest event. Attributes of the individuals arrested are used in the analysis of these arrest events.

In order to calculate arrest rates, population data were obtained from the National Planning Association. They maintain yearly demographic data broken down by race, sex, and age (in five-year cohorts) for the years 1967 through 1980. Population forecasts are included in the data set for the years 1981 through the year 2000. For New York State, this information is available for each county. The racial breakdown consists of the categories White and non-White, as used by the United States Bureau of the Census. The population estimates for the 15-19 year old age group were converted to estimates for 16-19 year olds by reducing the former counts by 20 percent. This was done to match the arrest data which were collected only for persons who were 16 or older at the time of the arrest.

Key Variables

Throughout this report, felony arrests are classified into particular groups on the basis of crime type and the demographic variables "region", "race", and "age". For the purposes of this report, these four variables were constructed as follows:

Region - Arrests were categorized into one of three regional groups based on the county in which the arrest took place. New York City consisted of the five counties of Bronx, Kings, New York, Queens, and Richmond, The four counties of Nassau, Rockland, Suffolk and Westchester were classified as New York City Suburbs. The category Upstate New York was applied to all remaining counties.

Race - The race of the arrested person was determined from the information provided by the police on the arrest fingerprint card. Since changes were made to the fingerprint cards during this study period , race information was not collected in a consistent fashion. In an attempt to develop a consistent measure and to provide comparability with the racial information available for the general population, two categories of race were used - White and non-White. Under this categorization scheme, arrest events in which the individual was categorized as having a Hispanic race were categorized as White. Non-Whites consisted of those persons who were categorized as Black or Other. In the general population series Hispanics who did not use the available racial categories but instead responded using a "place of origin" were categorized as White.

Age - As noted above, the population data were available in five-year age groupings. Since the arrest data were restricted to those individuals 16 years of age or older, the first arrest age group consisted of 16-19 year olds. General population estimates for the 15-19 year olds were reduced by 20 percent to estimate the population 16-19. Most age analysis was restricted to the most crime prone groups, 16-29 year olds.

Type of Crime - Besides total adult felony arrests, three types of crime categories representing approximately 70 percent of all felony arrests

were created. "Person offenses" were made up of the crimes of murder, non-negligent manslaughter, rape, robbery, and aggravated assault. "Property offenses" included the offenses of burglary, larceny, and motor vehicle theft. These two categories include all offenses counted in the Uniform Crime Report Index except for the crime of arson. A third category was created consisting of New York State Penal Law drug offenses. The drug laws have undergone considerable modification during the period under study and represent a significant proportion of felony arrests. Because the crime of robbery involves both the elements of theft and force, and typically involves confrontation between strangers, it was deemed to be of enough importance to be examined separately.

FELONY ARREST TRENDS

Pattern Description Method

The time series pattern description method developed by the Illinois Statistical Analysis Center was used extensively in these analyses. Briefly, this method uses linear spline regression techniques to find a set of line segments using least squares criteria that best describe the entire series.[3] A constraint on the line segments is that they must be joined together at "turning points". These turning points in the trends should be considered only approxi- mate dates at which a significant change in the pattern of arrests occurred. The strength of this method is in its ability to provide simple summary information that can be readily understood by readers without formal statistical training. By using this method, it is possible to describe what major changes in trends have taken place, and whether certain time periods show arrests increasing, decreasing, or staying the same.

Linear growth rates were calculated for each segment to describe the direction and magnitude of the changes in arrests. The growth rate was calculated by finding the difference between the value at the beginning of the segment and the value at the end of the segment; expressing this quantity as a percentage of the starting value; and then dividing the percentage by the length of time (expressed in years) covered by the segment.[4] For example, if a segment started with a value of 100 and rose to value of 250 at the end of the segment and the segment covered a time period of 18 months (1.5 years) the annual growth would be 100:

$$(250-100)/100 \times 100 \;/\; 1.5 \text{ years} = +\ 100\% \text{ per year}$$

In order to identify the patterns of change in male felony arrests during the period 1970 through 1984, monthly arrest data were analyzed using the pattern description package. It was felt that yearly data might hide or blur some of the changes that have occurred over these years. The resulting line segments serve as simplified summaries of the changes in monthly arrests. The accompanying figures display both the observed monthly counts and the line segments of the model. Different scales have been used across the figures. This was necessary because the absolute levels of monthly arrests covered a wide range across the groups examined. Use of a common scale would have hidden some of the trends and differences among groups.

Description of the changes in monthly felony arrests over the 15-year period 1970-1984 follows for various series that differ with respect to region, race, age, and type of crime. Emphasis is placed on comparison of the patterns for different categories within a variable. Differences in the absolute levels of arrest are not addressed since this is, in part, a result of the size of the particular subpopulations. Differences among regions, races, ages, and crime types are addressed in the discussion of rates in a later section of the report.

New York State Trends

Male felony arrests rose steadily in New York State during the 15-year period, 1970-1984. Figure 1 shows that while there were fewer than 7,000 arrests in January 1970, by 1984 monthly arrests were frequently above the 11,000 mark. The single line segment fit to this series shows that arrests were rising 19 per month, an average annual increase of 3 percent above the beginning value of the line segment.

Regional Trends

The pattern of change differed among regions, although there were some similarities. All three regions experienced a general upward trend in arrests across the 15 years. Only in the Suburban New York City counties was this upward trend interrupted by periods of declining arrests (see Figures 2-4). While all three regions experienced a growth in arrests over the first five years , the linear growth rates differed. Upstate New York had the largest increase (26 percent), followed by Suburban New York City (14 percent), and then New York City (2 percent). During the last four years of the period (1981-1984) monthly felony arrests continued to rise modestly in New York City and in Upstate New York, but were declining in the Suburban New York City counties.

Figures 2-4 show that while all three regions of the State have experienced a general upward trend in arrests, the detailed patterns of change were unique for each region. The locations of turning points and the rates of change typically were different.

Race and Trends

Both racial groups had increasing arrests during the 15-year period but had different growth rates during the years (see Figures 5-6). While each series was described by a two-segment model, the shape formed by the union of the two segments differed. For White males a convex shape was observed as the growth in monthly arrests diminished in the later years. For non-White males a concave shape was evident as the rate of growth in monthly arrests increased in the later years. During the first half of the series the White arrests were growing faster than non-White arrests (6.9% vs. 2.5%). This rate of growth was reversed in the last four years when non-White arrests were increasing faster than the increase in White arrests (5.1% vs. 0.5%).

Age and Trends

Felony arrest trends differed by age group as well (see Figures 7-9). Three age groups, 16-19, 20-24, and 25-29 are displayed since approximately 70 percent of all adult felony arrests involved these ages. Each arrest series evidenced

long periods of slow growth, but differences did exist among the series. The 16-19 year old series grew for the first 7.5 years of the series with an average annual increase of 14 percent above the start of the series. From 1979 through the end of 1984 the series showed a small decline of about 4 percent a year from the beginning of the line segment. The series for 20-24 year olds rose gradually throughout the period at a modest average annual 2 percent growth. For the 25-29 year old series, three segments of growth interrupted by brief but major downturns best describe the series. The most recent period of growth, from 1978 through 1984, was increasing 7 percent annually. It should be noted that the actual amount of variation "explained" by the line segments in each series differs substantially across the three age groups.

Type of Crime Trends

The pattern of arrests over time was different for each crime group examined (see Figures 10-12). Figure 10 shows that the person offense series grew at two different rates during the study period. For the first 2.5 years, monthly arrests were rising at an average annual increase of 22 percent. Growth continued through the end of the period but at a much slower rate, averaging 3 percent a year from the turning point value.

Property arrests also increased during the first part of the series but then declined in the latter half of the period (see Figure 11). Between January, 1970 and July, 1977, arrests were increasing an average of 16 percent a year. After that time, arrests declined an average of 3 percent a year - a trend opposite that of arrests for person offenses.

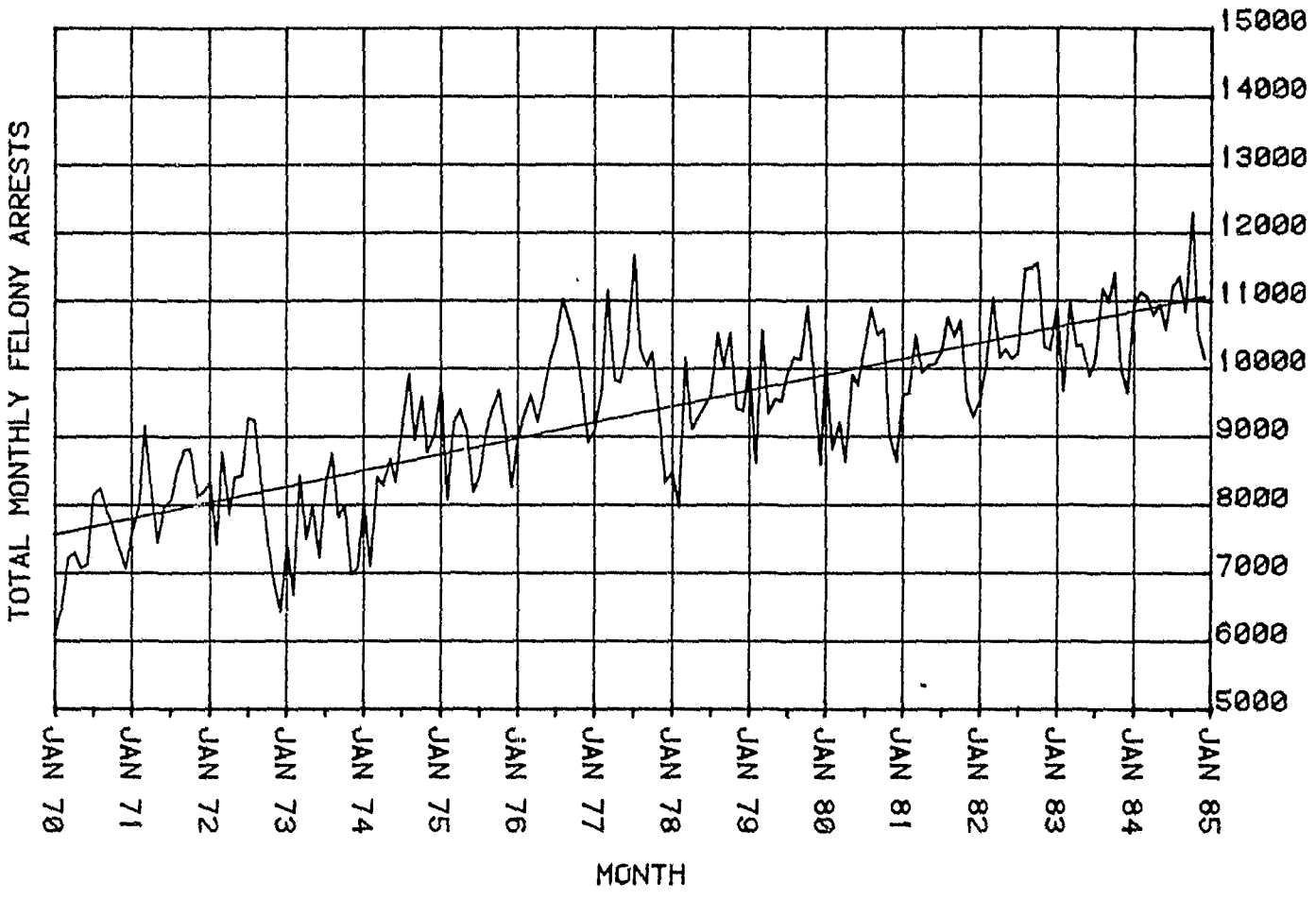
Felony drug arrests were the least stable of the crime group series (see Figure 12). During 1970 through 1972 drug arrests rose sharply and then fell almost as rapidly. From 1973 through the first quarter of 1977, a period when the tougher Rockefeller drug laws where being instituted, drug arrests were rising about 7 percent a year. Between April and November, 1977, a sharp downturn in arrests was evident. This drop may have been due to the decriminalization of many marijuana offenses in July of that year. The decline was short-lived, with felony drug arrests growing over the last seven years of the study at an average annual rate of 25 percent.

The robbery arrest series, a subset of the person arrest series, was similar to the overall person series. Except for a brief decline in robbery arrests in the last half of 1972, monthly arrests for robbery have been increasing throughout the study period (see Figure 13). From 1970 through mid-1972 arrests were growing 32 percent a year. The second period of growth lasting from October, 1972 through the end of 1984 was slower, averaging 4 percent a year.

Analysis of patterns of change in felony arrests by crime group has shown that each group has had its own pattern. While person offense arrests have shown a clear prolonged upward trend, each of the other crime groups has had periods of increasing and decreasing arrests. In the most recent past, only arrests for property crimes have been declining. The rate of growth for person offense arrests and the subset of robbery offenses have declined as well.

FIGURE 1

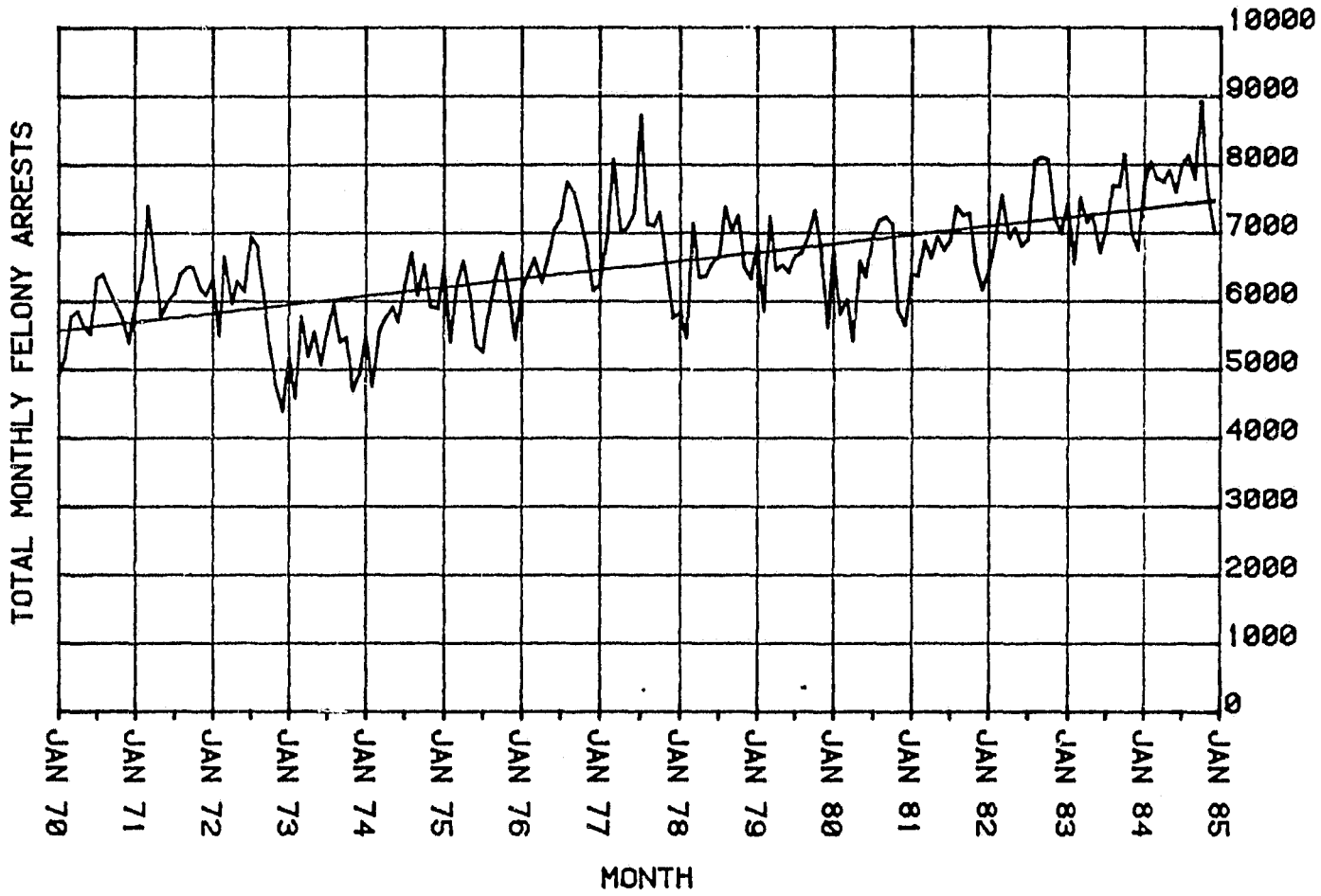
FELONY ARRESTS, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 19.47 PCT SS EXPLAINED = 65.06
Y ZERO INTERCEPT = 7559.05

FIGURE 2

FELONY ARRESTS, MALES, AGES 16 AND OVER
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

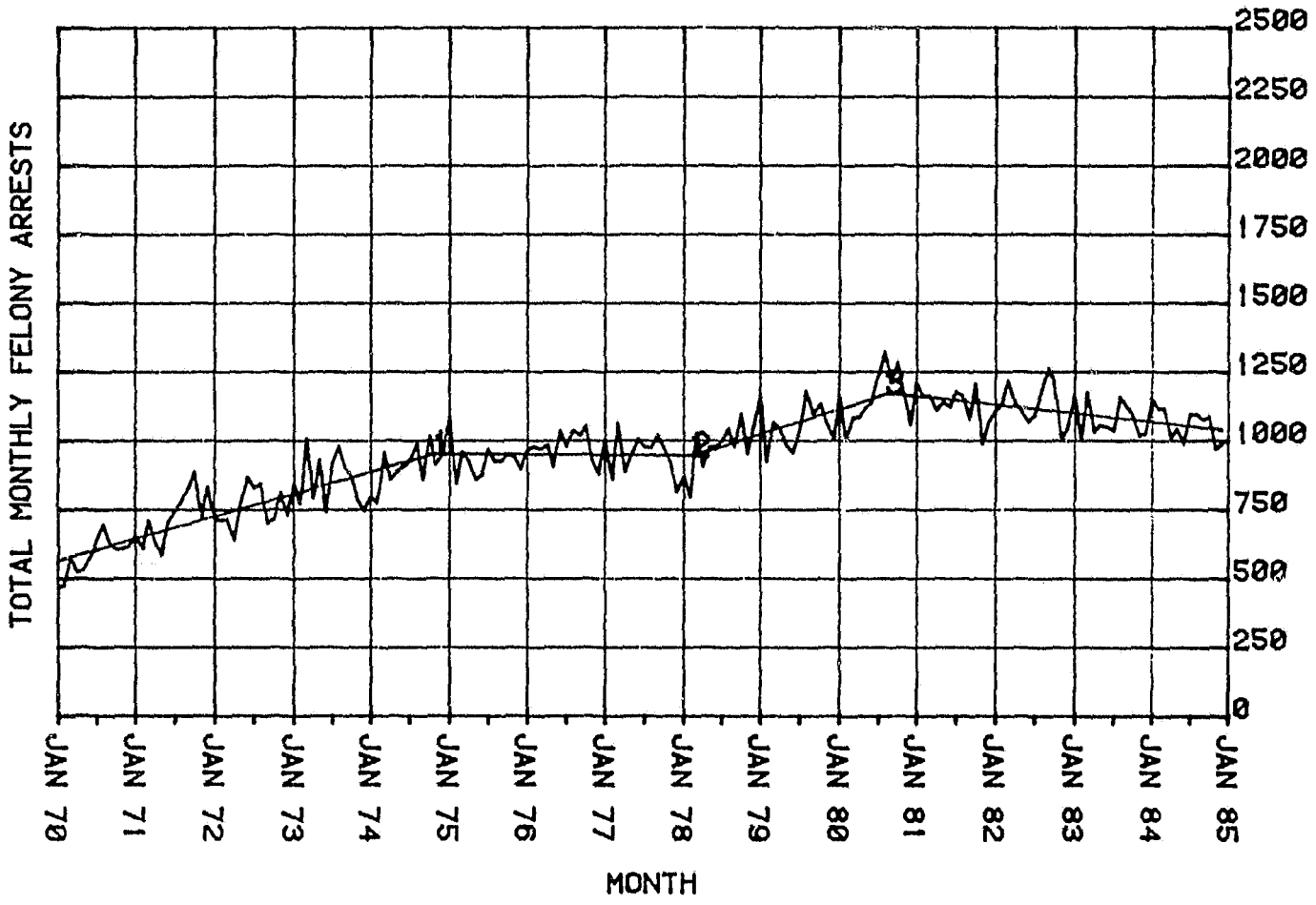


FIRST SLOPE = 10.65
Y ZERO INTERCEPT = 5559.12

PCT SS EXPLAINED = 42.88

FIGURE 3

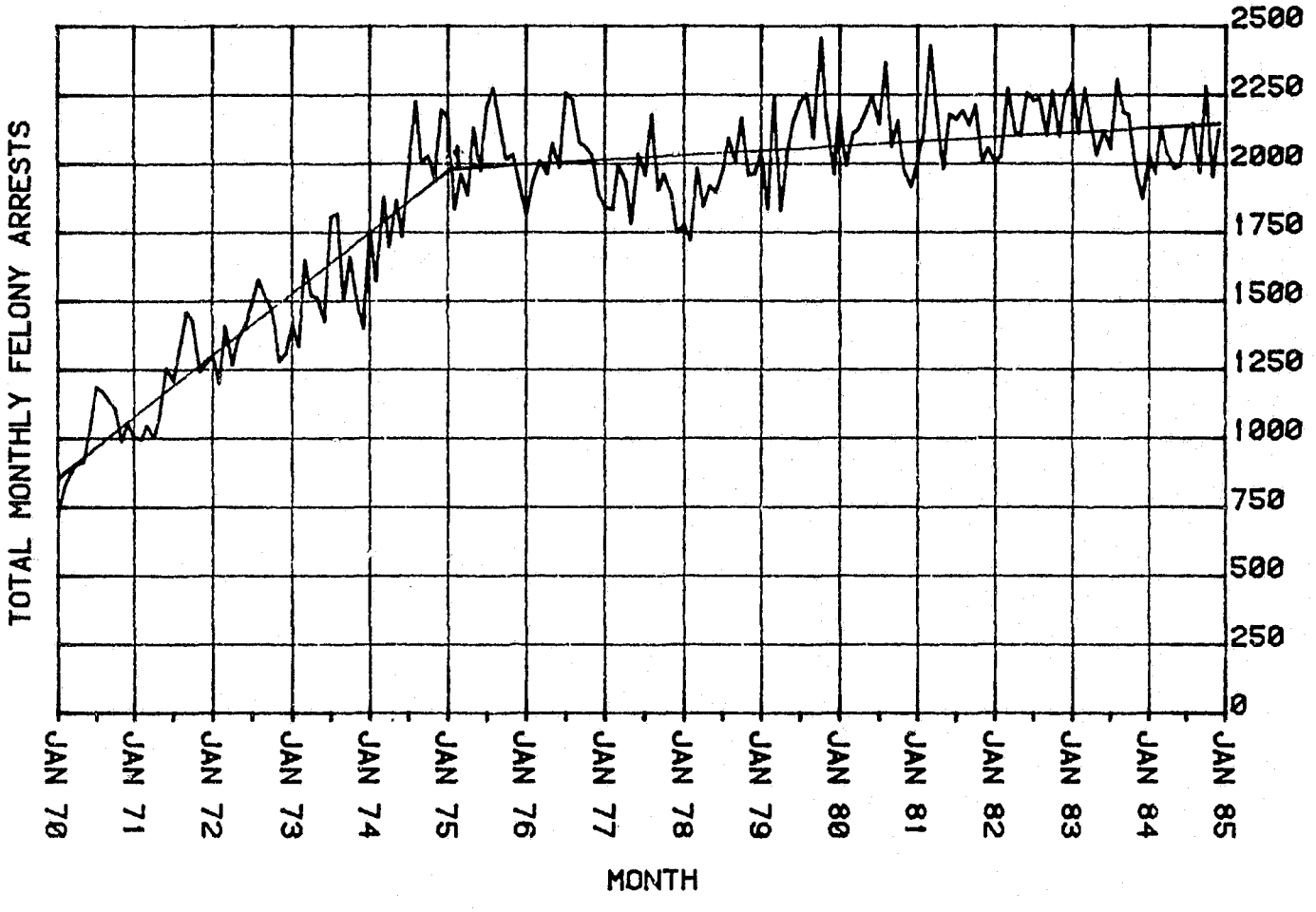
FELONY ARRESTS, MALES, AGES 16 AND OVER
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	6.70	FIRST TURNING POINT	X: 10/74
Y ZERO INTERCEPT =	560.25		Y: 952.22
SECOND SLOPE =	-0.14	SECOND TURNING POINT	X: 2/78
Y ZERO INTERCEPT =	960.25		Y: 946.72
THIRD SLOPE =	7.60	THIRD TURNING POINT	X: 8/80
Y ZERO INTERCEPT =	198.35		Y: 1174.65
FOURTH SLOPE =	-2.61	PCT SS EXPLAINED =	84.64
Y ZERO INTERCEPT =	1510.16		

FIGURE 4

FELONY ARRESTS, MALES, AGES 16 AND OVER
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

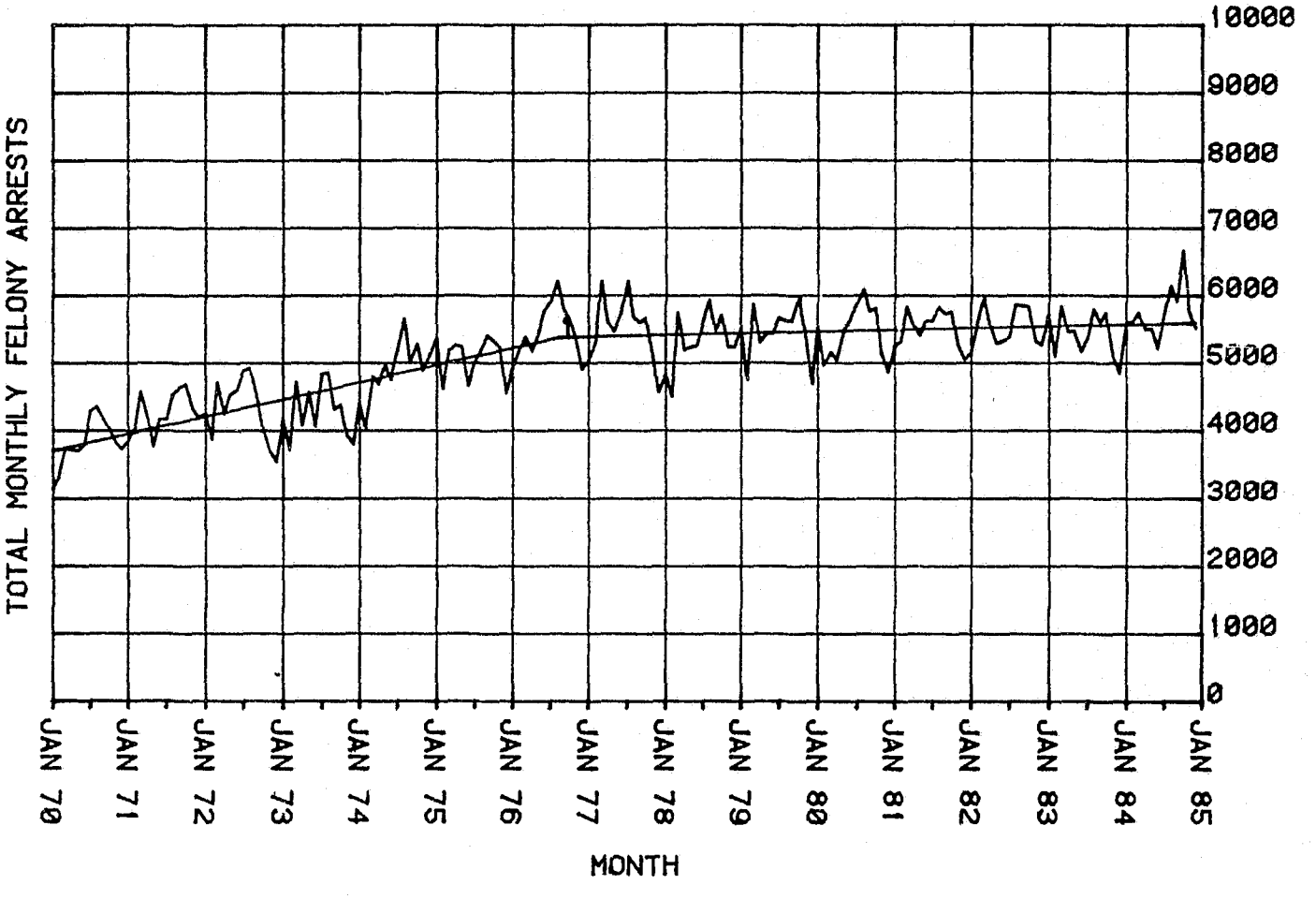


FIRST SLOPE =	18.63
Y ZERO INTERCEPT =	837.90
SECOND SLOPE =	1.40
Y ZERO INTERCEPT =	1898.07

FIRST TURNING POINT X: 1/75
Y: 1983.89
PCT SS EXPLAINED = 87.67

FIGURE 5

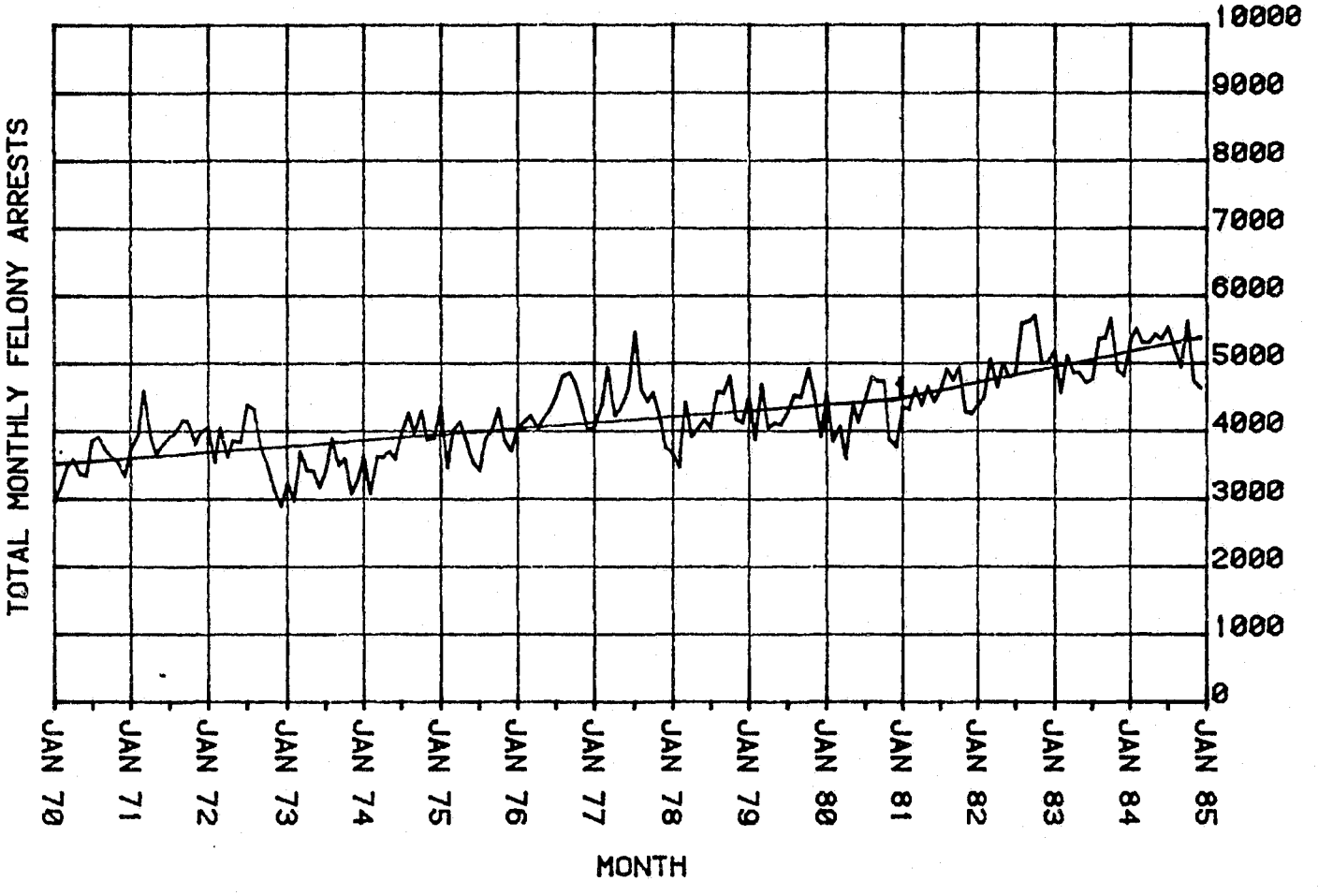
FELONY ARRESTS, WHITE MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	21.16	FIRST TURNING POINT X:	8/76
Y ZERO INTERCEPT =	3690.07	Y:	5393.35
SECOND SLOPE =	2.10	PCT SS EXPLAINED =	70.54
Y ZERO INTERCEPT =	5224.63		

FIGURE 6

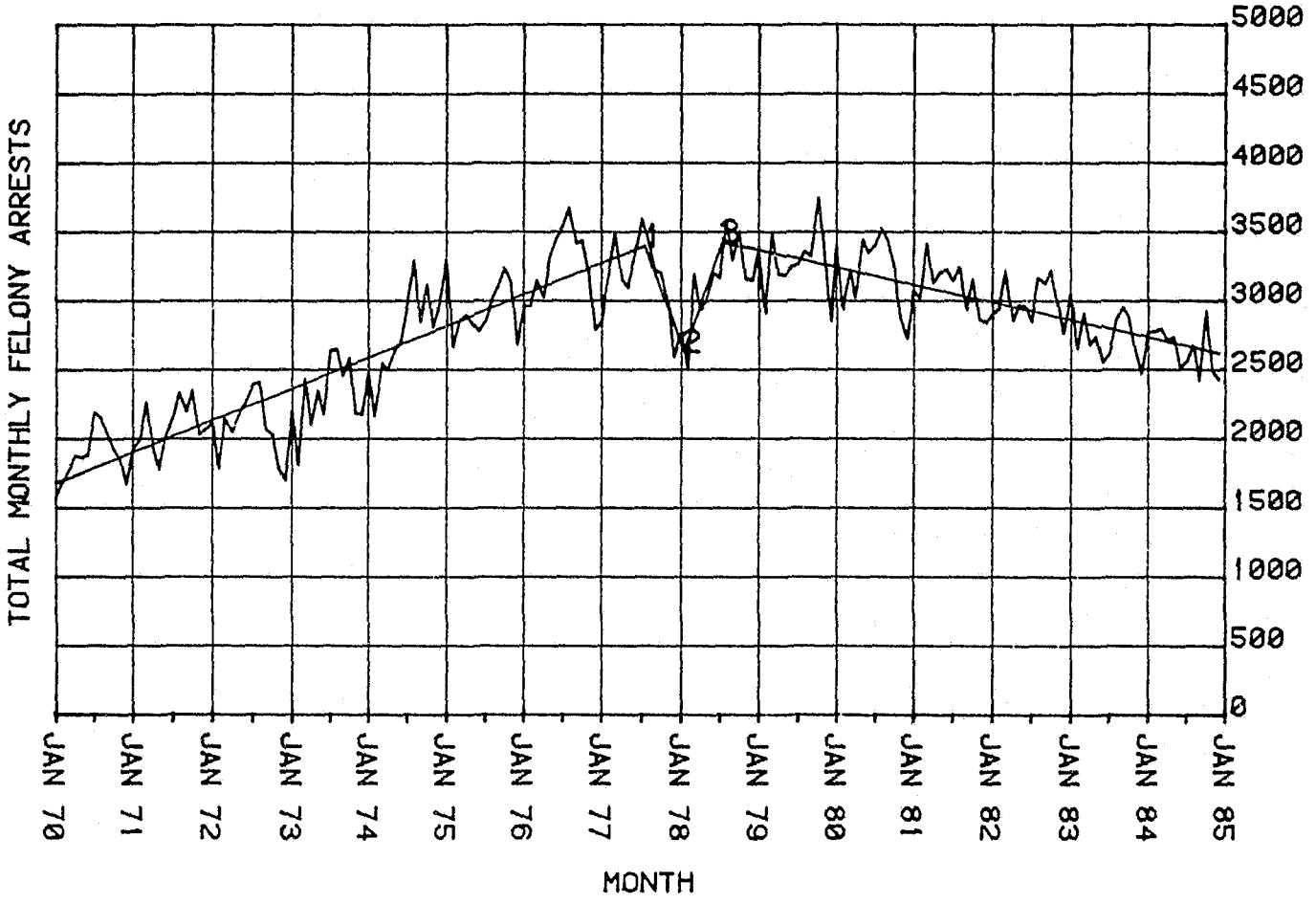
FELONY ARRESTS, NONWHITE MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	7.27	FIRST TURNING POINT X:	11/80
Y ZERO INTERCEPT =	3509.00	Y:	4464.58
SECOND SLOPE =	19.13	PCT SS EXPLAINED =	63.53
Y ZERO INTERCEPT =	1948.66		

FIGURE 7

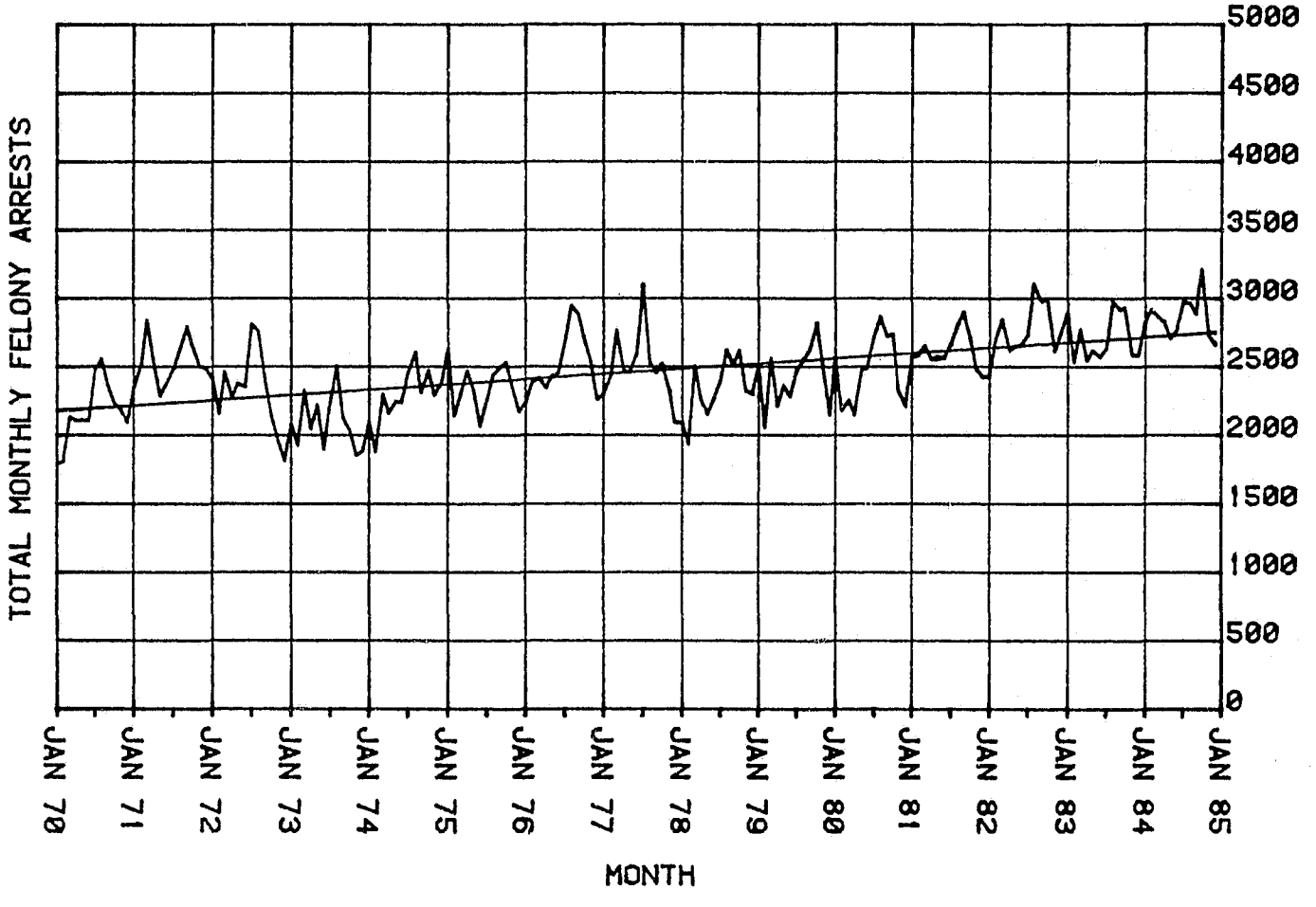
FELONY ARRESTS, MALES, AGES 16 THROUGH 19
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	19.05	FIRST TURNING POINT X:	7/77
Y ZERO INTERCEPT =	1657.24	Y:	3399.96
SECOND SLOPE =	-127.80	SECOND TURNING POINT X:	1/78
Y ZERO INTERCEPT =	15093.52	Y:	2633.17
THIRD SLOPE =	131.96	THIRD TURNING POINT X:	7/78
Y ZERO INTERCEPT =	-10232.45	Y:	3424.90
FOURTH SLOPE =	-10.51	PCT SS EXPLAINED =	82.13
Y ZERO INTERCEPT =	4512.29		

FIGURE 8

FELONY ARRESTS, MALES, AGES 20 THROUGH 24
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

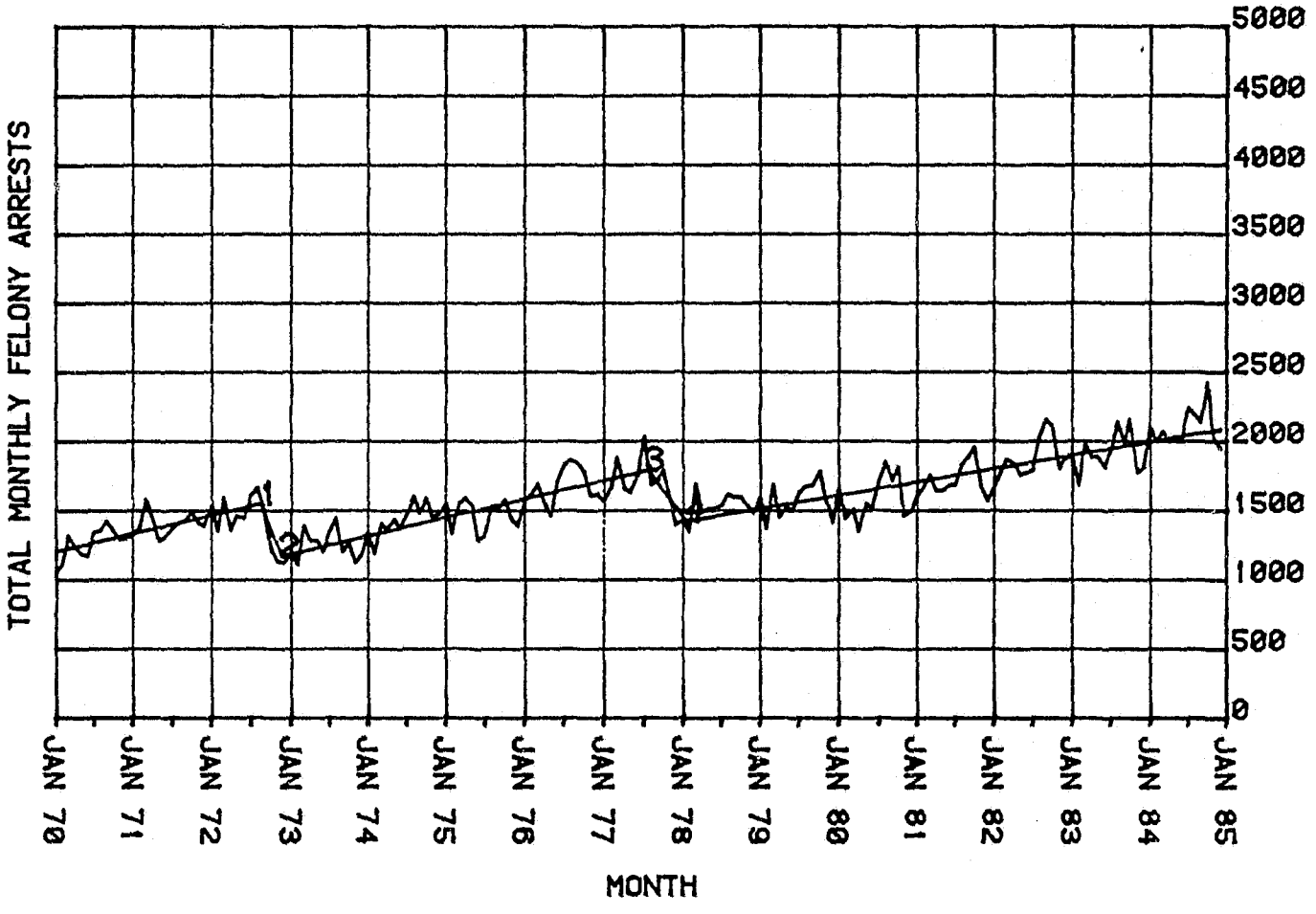


FIRST SLOPE = 3.23
Y ZERO INTERCEPT = 2173.32

PCT SS EXPLAINED = 33.91

FIGURE 9

FELONY ARRESTS, MALES, AGES 25 THROUGH 29
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

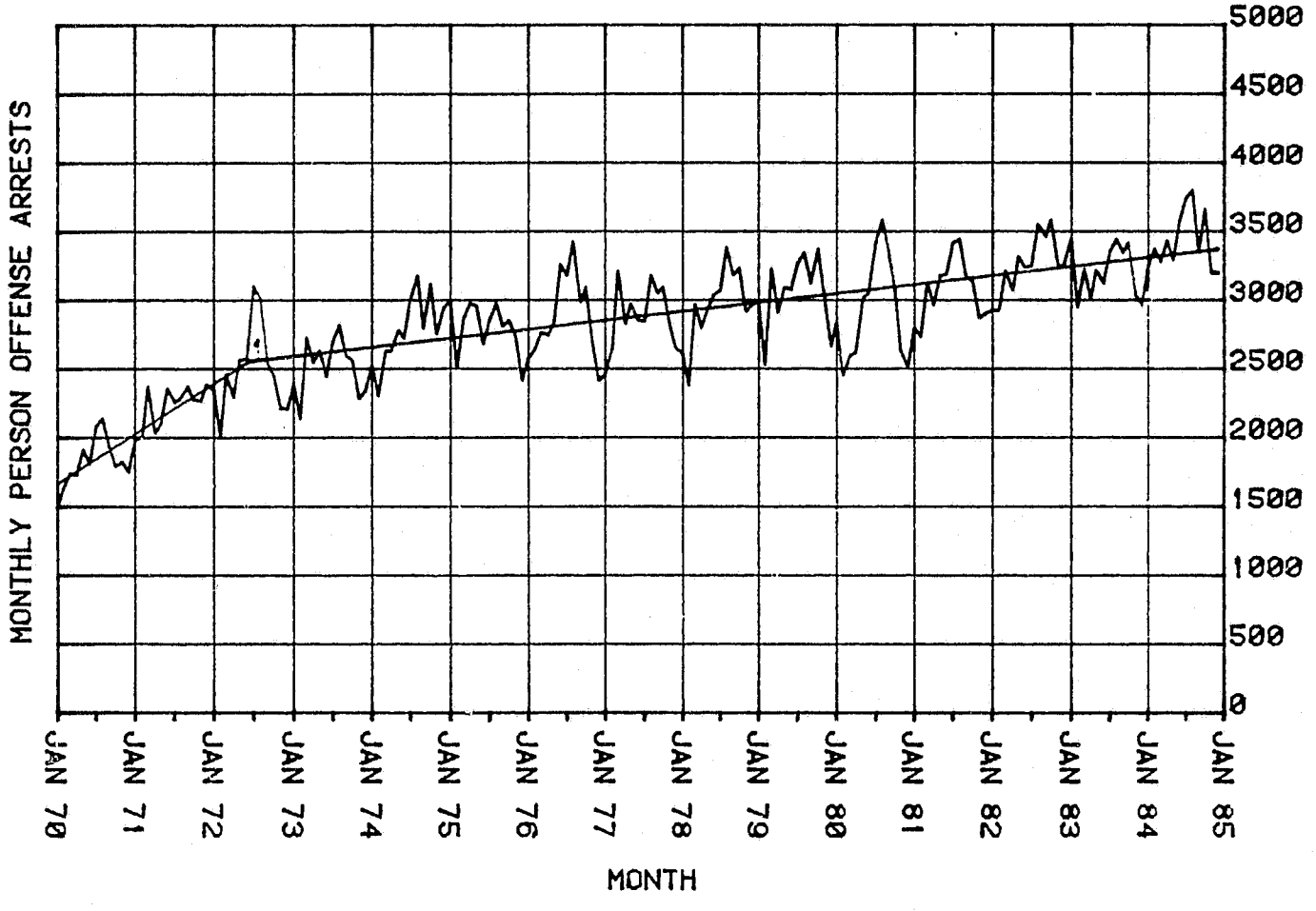


FIRST	SLOPE =	11.03	
Y ZERO	INTERCEPT =	1191.61	
SECOND	SLOPE =	-124.79	
Y ZERO	INTERCEPT =	5605.58	
THIRD	SLOPE =	11.09	
Y ZERO	INTERCEPT =	781.94	
FOURTH	SLOPE =	-61.35	
Y ZERO	INTERCEPT =	7410.13	
FIFTH	SLOPE =	8.03	
Y ZERO	INTERCEPT =	645.66	

FIRST	TURNING POINT	X: 8/72
		Y: 1549.94
SECOND	TURNING POINT	X: 11/72
		Y: 1175.57
THIRD	TURNING POINT	X: 7/77
		Y: 1796.52
FOURTH	TURNING POINT	X: 1/78
		Y: 1428.41
PCT SS EXPLAINED =		80.04

FIGURE 10

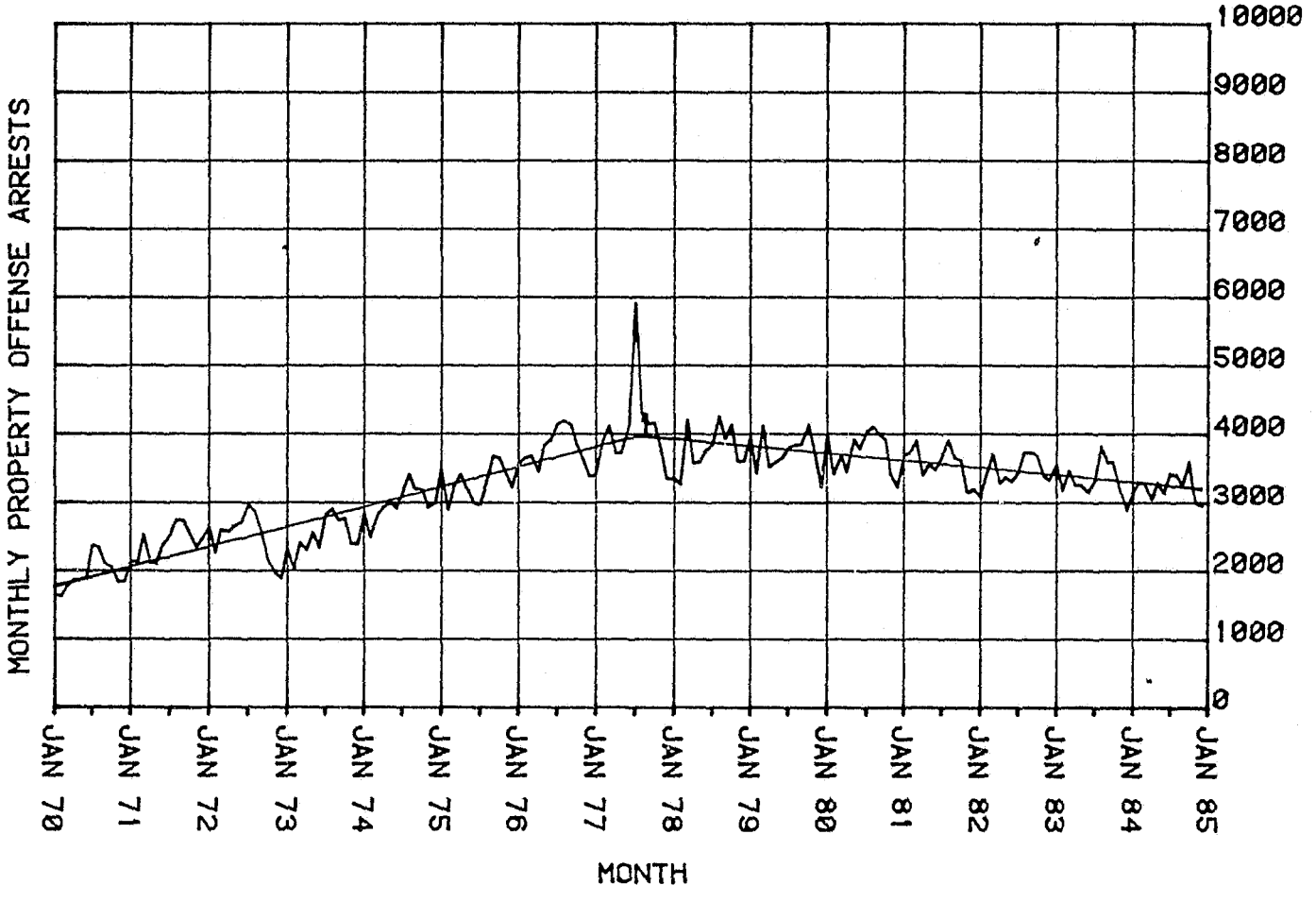
PERSON OFFENSE ARRESTS, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	30.20	FIRST TURNING POINT X:	6/72
Y ZERO INTERCEPT =	1635.17	Y:	2556.29
SECOND SLOPE =	5.45	PCT SS EXPLAINED =	73.85
Y ZERO INTERCEPT =	2389.93		

FIGURE 11

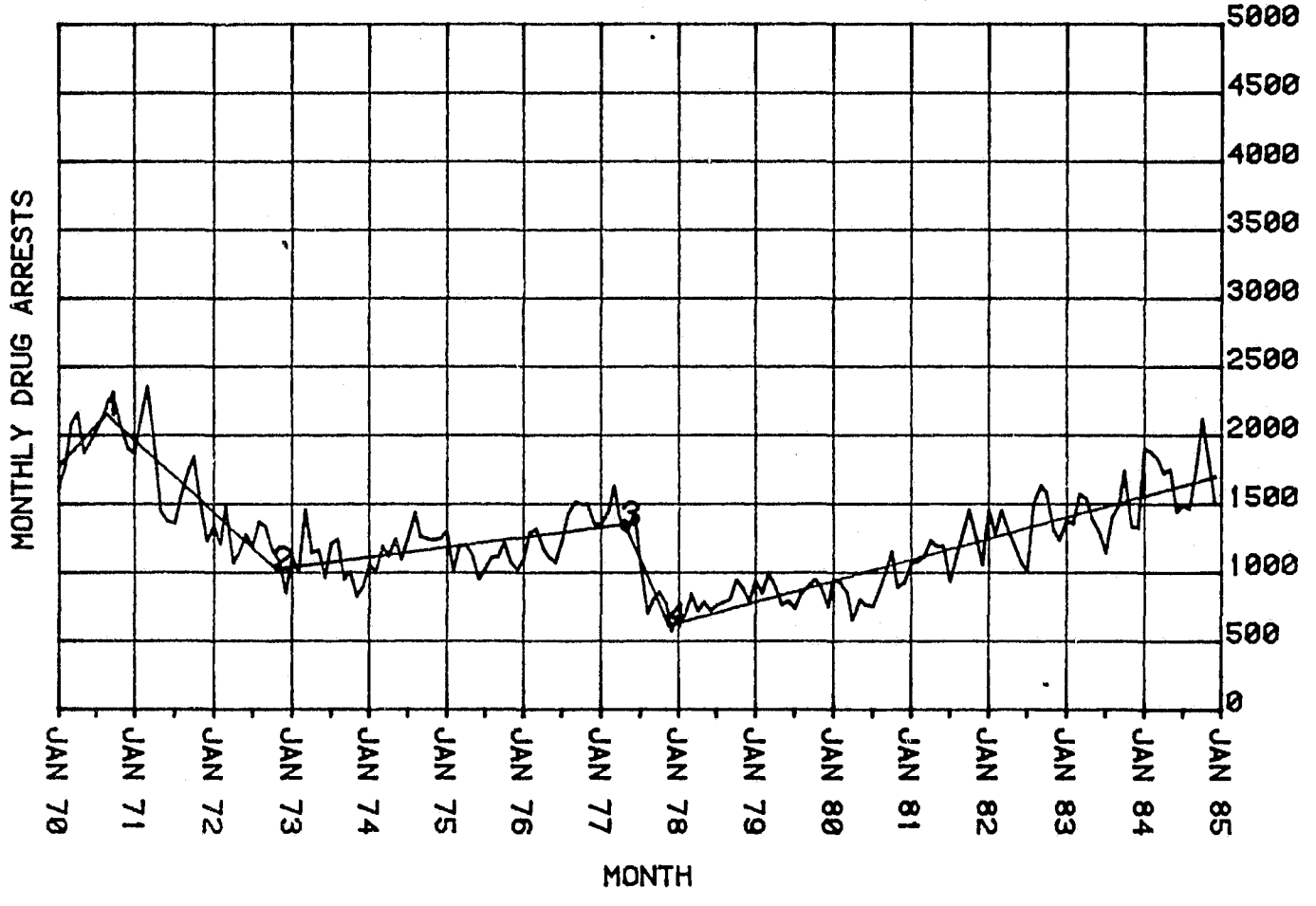
PROPERTY OFFENSE ARRESTS, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	24.20	FIRST TURNING POINT X:	7/77
Y ZERO INTERCEPT =	1754.13	Y:	3968.22
SECOND SLOPE =	-8.64	PCT SS EXPLAINED =	79.05
Y ZERO INTERCEPT =	4758.61		

FIGURE 12

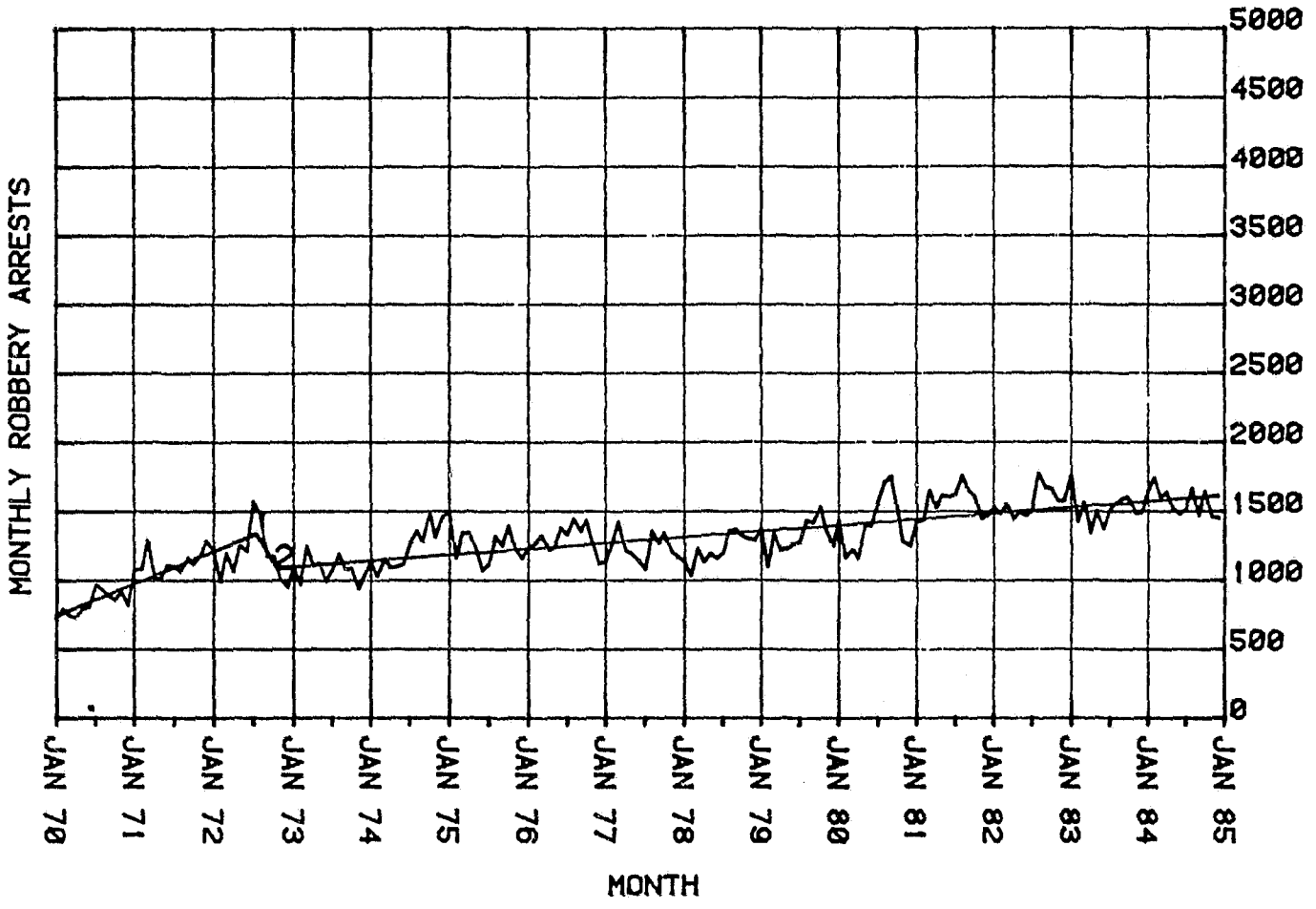
DRUG ARRESTS, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	49.46	FIRST TURNING POINT	X: 8/70
Y ZERO INTERCEPT =	1729.92		Y: 2150.34
SECOND SLOPE =	-43.29	SECOND TURNING POINT	X:10/72
Y ZERO INTERCEPT =	2518.28		Y: 1024.86
THIRD SLOPE =	6.06	THIRD TURNING POINT	X: 4/77
Y ZERO INTERCEPT =	815.61		Y: 1352.36
FOURTH SLOPE =	-105.46	FOURTH TURNING POINT	X:11/77
Y ZERO INTERCEPT =	10685.70		Y: 614.13
FIFTH SLOPE =	12.85	PCT SS EXPLAINED =	80.65
Y ZERO INTERCEPT =	-612.92		

FIGURE 13

ROBBERY ARRESTS, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	19.49	FIRST TURNING POINT X:	7/72
Y ZERO INTERCEPT =	725.93	Y:	1339.74
SECOND SLOPE =	-82.87	SECOND TURNING POINT X:	10/72
Y ZERO INTERCEPT =	3950.08	Y:	1091.13
THIRD SLOPE =	3.57	PCT SS EXPLAINED =	70.72
Y ZERO INTERCEPT =	967.99		

FELONY ARREST RATES

The demographic distribution of New York State's population has undergone significant changes over the last 15 years. If changes in arrest counts are due in part to changes in the "at risk" pool in the general population, then a comparison of arrest count trends across subgroups is confounded by these shifts in the general population. Comparisons of absolute numbers of arrests among subpopulations is also meaningless. Other things being equal, one would expect a larger subgroup to have more arrests than a smaller group. Arrest rates were calculated and analyzed to address these issues.

Demographic Changes in New York State

New York State's male population, 16 years of age and older, increased only 4.8 percent in the 15-year period 1970-1984. However, examination of changes in population size within demographic subgroups indicates that fundamental changes have taken place in the makeup of the total population. Table 1 shows the change in population size between 1970 and 1984, expressed as a percent of the 1970 population. New York City's adult male population declined 6.9 percent during that period, while the other two regions of the State experienced growth in their respective populations.

Analyses within racial groups show that the White population remained nearly constant in New York State. The non-White population experienced very strong growth - up 38 percent statewide. This marked increase in population occurred in each region of the State. On the other hand, White groups either experienced only modest growth or experienced actual declines in population within each region. New York City's White male population declined 16 percent while in other regions of the State the White population increased 11 percent.

All three regions of the State lost population in the 16-19 age group, and had strong growth in the 25-39 age group as the post-World War II baby boom matured. New York State lost population in the age group 40 and over primarily as a result of the 19 percent decline for that group in New York City.

Table 2 displays the changes in size of the New York State adult male population within groups formed by jointly considering age, race and region. None of the non-White age groups had a net decrease in population for the period, while 6 of the 18 White groups (formed by age and region) lost population. The decline in the 16-19 age group occurred in each region of the State, but was restricted to the White population. The 16-19 non-White population increased in each region, although there was evidence that a slight decline in the subpopulation began around 1980 or 1981. Within New York City, two of the White crime-prone age groups (16-19, 20-24) declined in population, while the non-White crime-prone age groups increased. In the Suburban and Upstate New York regions, the age groups 20-24, 25-29, 30-34, and 35-39 experienced growth within both racial groups. For further details on the changes in population by region, race and age refer to the figures in Appendix A.

TABLE 1
Estimated New York State Male Population Ages 16 and Older
1970 to 1984 and Percent Change by Demographic Factors

Population X 1,000

Region:	1970	1984	Percent Change* 1970-1984
New York State	6,087	6,379	4.8
New York City	2,693	2,508	-6.9
Suburban New York City	1,192	1,370	14.9
Upstate New York	2,202	2,501	13.6
Race within Region:			
New York State			
White	5,389	5,413	0.5
Non-White	698	966	38.3
New York City			
White	2,157	1,801	-16.5
Non-White	536	707	31.8
Suburban New York City			
White	1,126	1,255	11.5
Non-White	66	115	72.5
Upstate New York			
White	2,107	2,357	11.9
Non-White	96	144	50.6
Age within Region:			
New York State			
16-19	627	564	-10.0
20-24	639	785	22.8
25-29	589	750	27.4
30-34	502	687	36.9
35-39	493	610	23.7
40 & Over	3,237	2,982	- 7.9
New York City			
16-19	238	203	-14.7
20-24	293	299	2.1
25-29	283	309	9.2
30-34	231	291	26.0
35-39	212	244	15.0
40 & Over	1,436	1,163	-19.0
Suburban New York City			
16-19	135	128	- 5.3
20-24	104	158	50.9
25-29	99	142	43.7
30-34	96	136	41.8
35-39	109	133	22.7
40 & Over	649	673	3.8

TABLE 1 continued
Estimated New York State Male Population Ages 16 and Older
1970 to 1984 and Percent Change by Demographic Factors

Population X 1,000

Age within Region:	1970	1984	Percent Change* 1970-1984
Upstate New York			
16-19	253	233	- 8.2
20-24	242	329	35.9
25-29	208	300	44.5
30-34	175	260	48.6
35-39	173	233	34.9
40 & Over	1,151	1,146	- 0.5

*The percent change score is based on unrounded population estimates.

TABLE 2

New York State Male Population Ages 16 and Older: Estimated Percent* Change from 1970 to 1984 by Demographic Facors.

Percent Change 1970-1984

	New York State	New York City	Suburban New York City	Upstate New York
16-19				
White	-15.9	-27.5	-10.7	-10.1
Non-White	26.6	20.9	80.1	26.7
20-24				
White	16.0	-14.6	46.4	33.6
Non-White	68.2	62.1	112.5	73.8
25-29				
White	24.7	1.4	42.3	42.2
Non-White	43.4	34.5	60.2	83.2
30-34				
White	35.9	23.1	39.7	47.0
Non-White	42.4	34.1	68.2	73.8
35-39				
White	21.4	9.8	19.0	34.0
Non-White	37.4	30.1	76.0	50.1
40 and Over				
White	-11.7	-27.4	0.8	- 1.6
Non-White	30.8	25.7	64.2	34.7

*The percent change score is based on unrounded population estimates.

Comparison of Average Yearly Arrest Rates

Age. Average yearly arrest rates per 1,000 vary from one subgroup to another for all of the demographic variables considered (see Table 3). Persons 16-19 years old had the highest arrest rates, and the oldest age group (40 and over) had the lowest. Without exception, arrest rates decreased successively with each older age group. This pattern was also evident within each region and racial subgroup.

Race. Non-White males had higher rates of arrest than White males. Statewide, the ratio of non-White to White arrest rates was 5.5 to 1. Examination of the arrest rates by race within categories of region and age indicated that they were most similar in New York City (3.5 to 1) and among the youngest age group, 16-19 (3.8 to 1). The racial differences in arrest rates were greatest among older age groups and in the Upstate New York region. In both race groups the arrest rates declined with age but in a relatively slower manner for non-Whites.

Region. Examination of arrest rates for the three regions of the State indicated that New York City had the highest rate of arrests (30.4 per 1,000 males), followed by Upstate New York (9.2 per 1,000 males), and Suburban New York City (8.8 per 1,000 males). This 3 to 1 ratio between New York City and the other regions was also found within each age and race grouping.

Some of the differences in the rates could conceivably have been due to the unique joint distribution of the three variables. However, the bottom half of Table 3, which controls simultaneously for age, race and region, offers further support for the univariate findings. In every case, persons 16-19, those living in the New York City region, and non-Whites had the highest arrest rates within categories formed by the joint distribution of the other two variables.

Crime Type. An analysis by type of crime revealed that these findings concerning age, race, and region generally apply to person, property, and drug arrests, as well as to the subset of robbery arrests. Comparing across crime types, the most noticeable change involved the ratio of arrest rates by race. When examined within distinct age and region groups, the arrest rates for the two race groupings were most similar for felony drug arrests and property crimes. The ratio of non-White to White arrest rates within person offenses was twice as large as within property offenses. The racial ratio was greatest for robbery arrests -ranging between 4.9 to 1 and 24.5 to 1 across the three regions in the age groups 16-29. As an example, the age and race effects within New York City are shown for specific crime groups in Figures 14a-17b.

TABLE 3
Fifteen Year Average Arrest Rates Per 1,000 Male Population, 1970-1984

	Total Rate	White Rate	Non-White Rate	Non-White-to-White Ratio
New York State	17.8	11.2	61.4	5.5
Region:				
New York City	30.4	18.9	66.8	3.5
Suburban New York City	8.8	6.4	40.1	6.4
Upstate New York	9.2	7.2	48.5	6.8
Age:				
16-19	52.2	35.7	134.3	3.8
20-24	40.9	26.7	121.0	4.5
25-29	28.6	17.5	93.3	5.3
30-34	19.8	12.1	62.1	5.1
35-39	13.8	8.4	43.2	5.1
40 and Over	3.5	2.1	15.0	7.3
Type of Crime:				
Person Offense	5.4	2.7	23.1	8.6
Property Offense	6.1	4.2	18.7	4.4
Drug Offense	2.4	1.6	7.8	4.8
Robbery Offense	2.5	1.0	12.2	12.2

TABLE 3 continued
Fifteen Year Average Arrest Rates Per 1,000 Male Population, 1970-1984

	Total Rate	White Rate	Non-White Rate	Non-White-to White-Ratio
Age by Region:				
New York City				
16-19	92.1	63.0	150.1	2.4
20-24	70.0	46.7	133.8	2.9
25-29	48.5	30.9	101.6	3.3
30-34	35.3	22.9	68.6	3.0
35-39	25.6	16.8	48.1	2.9
40 and Over	6.0	3.5	16.0	4.5
Suburban New York City				
16-19	29.1	22.8	92.4	4.0
20-24	22.6	16.6	93.2	5.6
25-29	13.8	9.3	70.0	7.5
30-34	8.1	5.4	38.6	7.1
35-39	5.2	3.6	23.2	6.5
40 and Over	1.5	1.1	8.7	8.2
Upstate New York				
16-19	30.1	25.7	95.2	3.7
20-24	20.1	15.8	82.5	5.2
25-29	12.3	8.9	67.1	7.6
30-34	8.1	5.8	44.7	7.7
35-39	5.9	4.2	33.5	7.9
40 and Over	1.8	1.3	14.4	11.5

FIGURE 14a
Personal Crime Arrest Rate per 1,000
New York City, White Males by Age

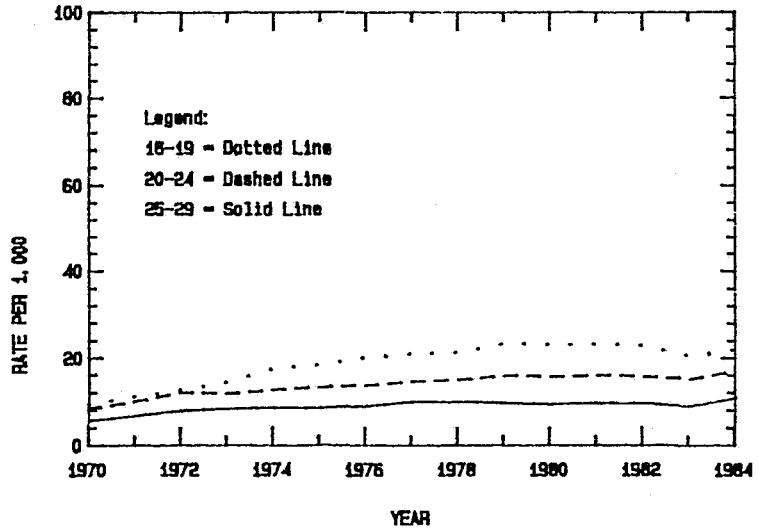


FIGURE 14b
Personal Crime Arrest Rate per 1,000
New York City, Non-White Males by Age

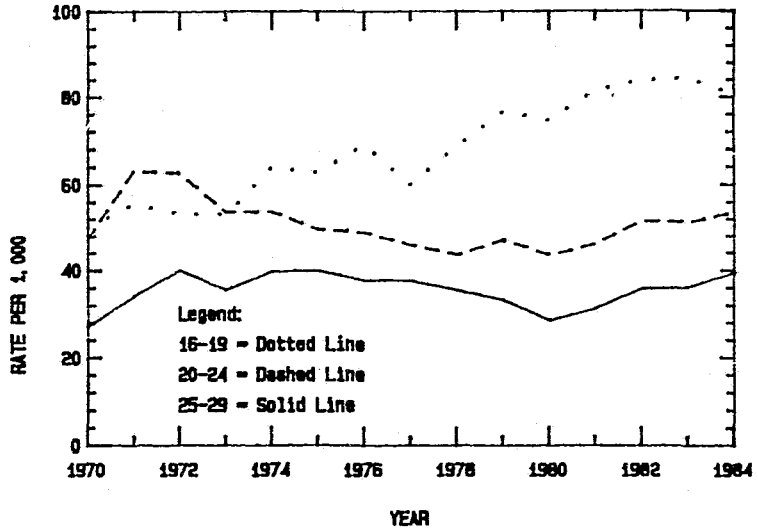


FIGURE 15a
Property Crime Arrest Rate per 1,000
New York City, White Males by Age

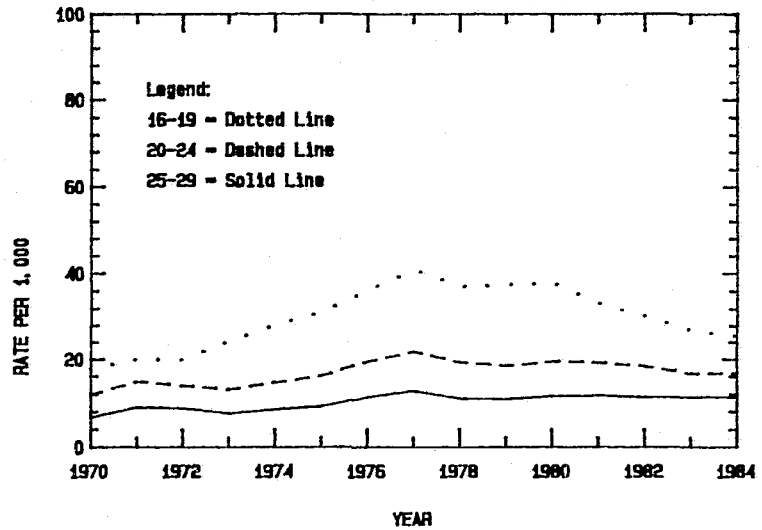


FIGURE 15b
Property Crime Arrest Rate per 1,000
New York City, Non-White Males by Age

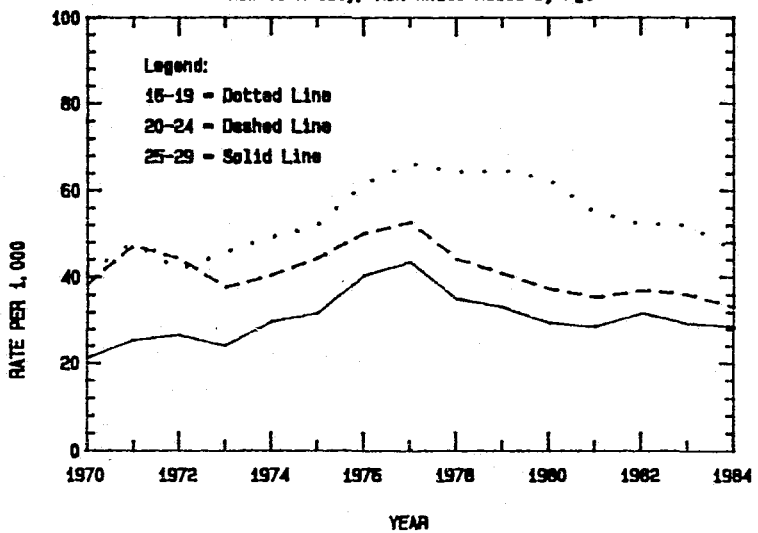


FIGURE 16a
Robbery Arrest Rate per 1,000
New York City, White Males by Age

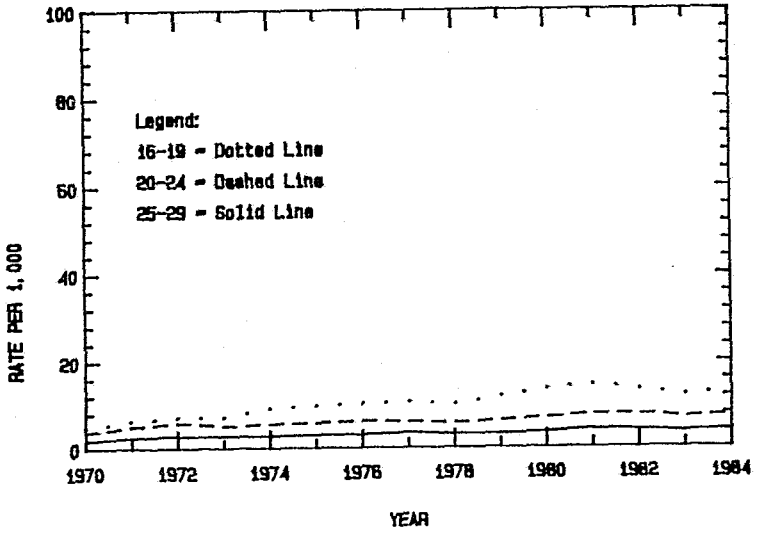


FIGURE 16b
Robbery Arrest Rate per 1,000
New York City, Non-White Males by Age

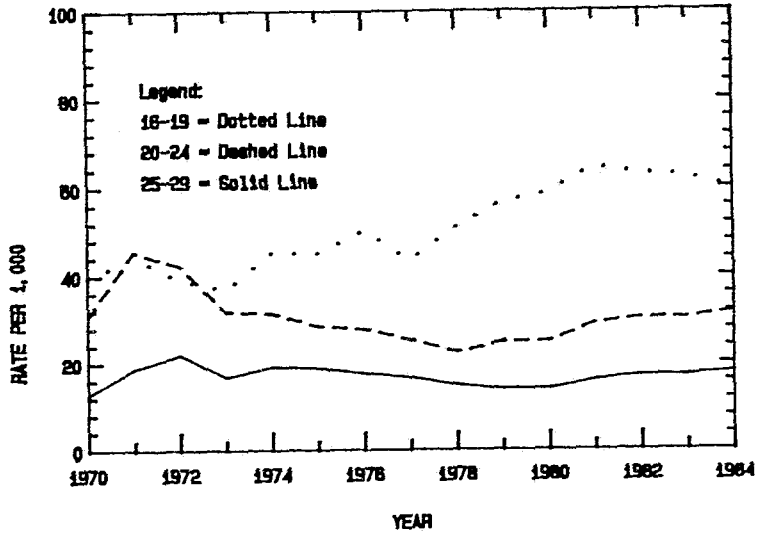


FIGURE 17a
Drug Arrest Rate per 1,000
New York City, White Males by Age

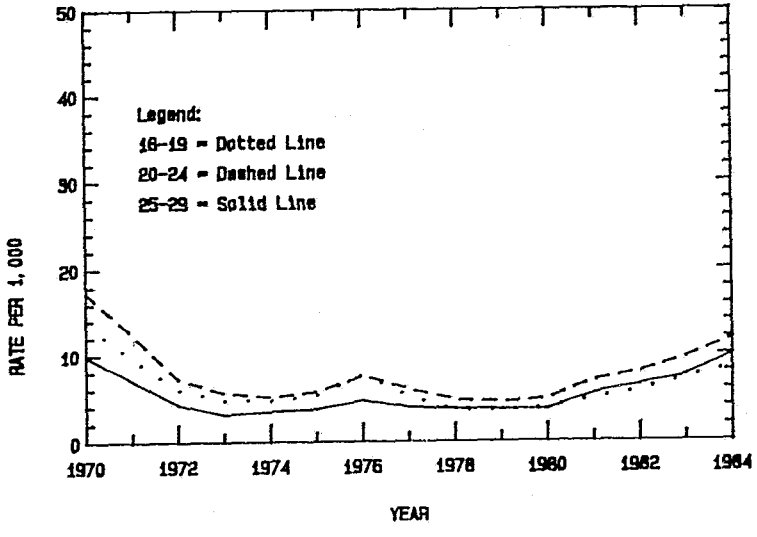
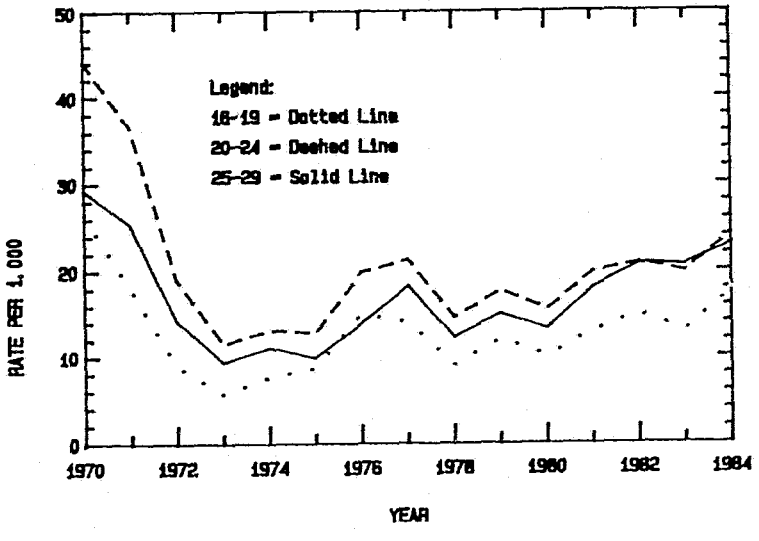


FIGURE 17b
Drug Arrest Rate per 1,000
New York City, Non-White Males by Age



FELONY ARREST RATE TRENDS

From an examination of trends in the general population of New York State, it is apparent that the demographic profile of the State has undergone considerable change during the 15-year period even though the size of the total population has not changed a great amount. Since arrest rates vary by race, age, and region, and the distribution of the general population on these dimensions has changed over time, the trends observed in arrest counts are confounded with changes in the population. By examining changes in arrest rates, the effect of changes in the population size can be removed. Changes in the distribution of the population across the key demographic variables can be controlled for by examining the rates within distinct groups formed from these variables. Therefore, trends in monthly felony arrest rates per 100,000 males were examined and comparisons made with the results of the examination of trends in arrest counts.

Because the changes in the general population distribution and size were gradual it was expected that sharp increases or decreases noted in the arrest counts would necessarily be reflected in the rates as well. This proved to be the case. Switching to felony arrest rates did not result in major differences in the description of arrest trends in most cases. A visual comparison of the charts is hindered by the difference in measures (counts versus rates), but comparison of the average annual growth rates indicated that the rates of change were quite similar as well. For purposes of comparison, Figures 18-30 are presented showing the patterns of change exhibited by the arrest rates within subgroups of the demographic variables. Because of the similarity in the patterns between counts and rates, only exceptions to this finding will be discussed. Appendix B contains additional figures showing the pattern of change in arrest rates for more specific subgroups.

Race and Rate Trends

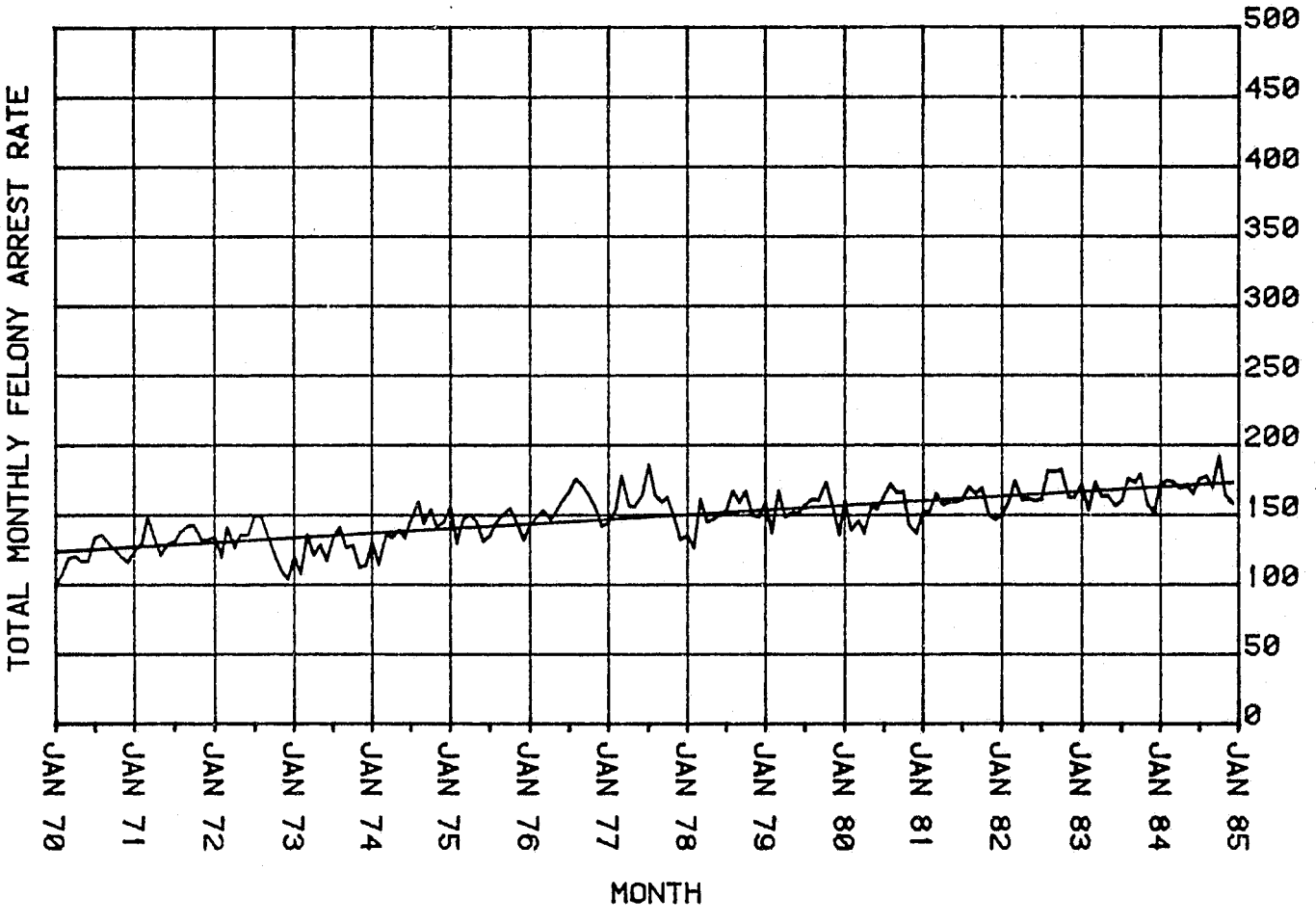
While a comparison of White arrest count and arrest rate trends results in virtually the same information, a comparison of non-White trends leads to different conclusions (see Figures 5 and 22 vs. Figures 6 and 23). The rise in non-White arrests during this time period was also a period of growth in the size of the non-White population in New York State. Consequently, the non-White arrest rates (per 100,000 population) showed almost no growth throughout the 15 year period. In contrast, the trend in non-White arrest counts during the years 1981-1984 was up 5 percent annually.

Age and Rate Trends

A comparison of the trends lines estimated by the pattern description software for arrest counts and arrest rates within age groups might suggest that they differ markedly (see Figures 7-9 vs. Figures 24-26). The differences noted seem to be more an artifact of the algorithms used by the pattern description package rather than any major differences between the trends in arrest counts and arrest rates. In two of the three comparisons , ages 16-19 and 25-29,the rates series required fewer segments than the arrest counts series to represent their respective trends. Examination of the figures shows that

FIGURE 18

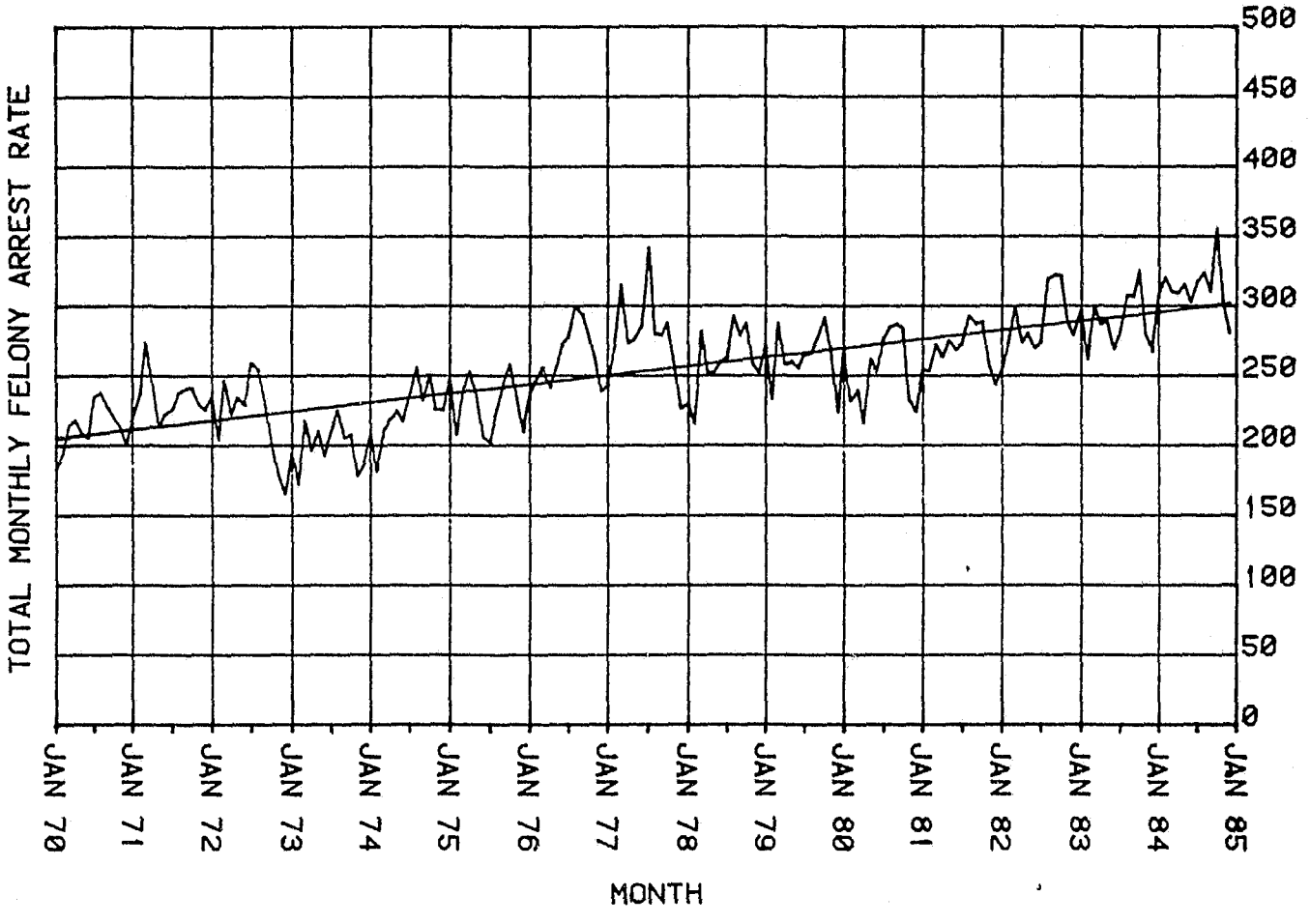
FELONY ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.28 PCT SS EXPLAINED = 60.13
Y ZERO INTERCEPT = 123.48

FIGURE 19

FELONY ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

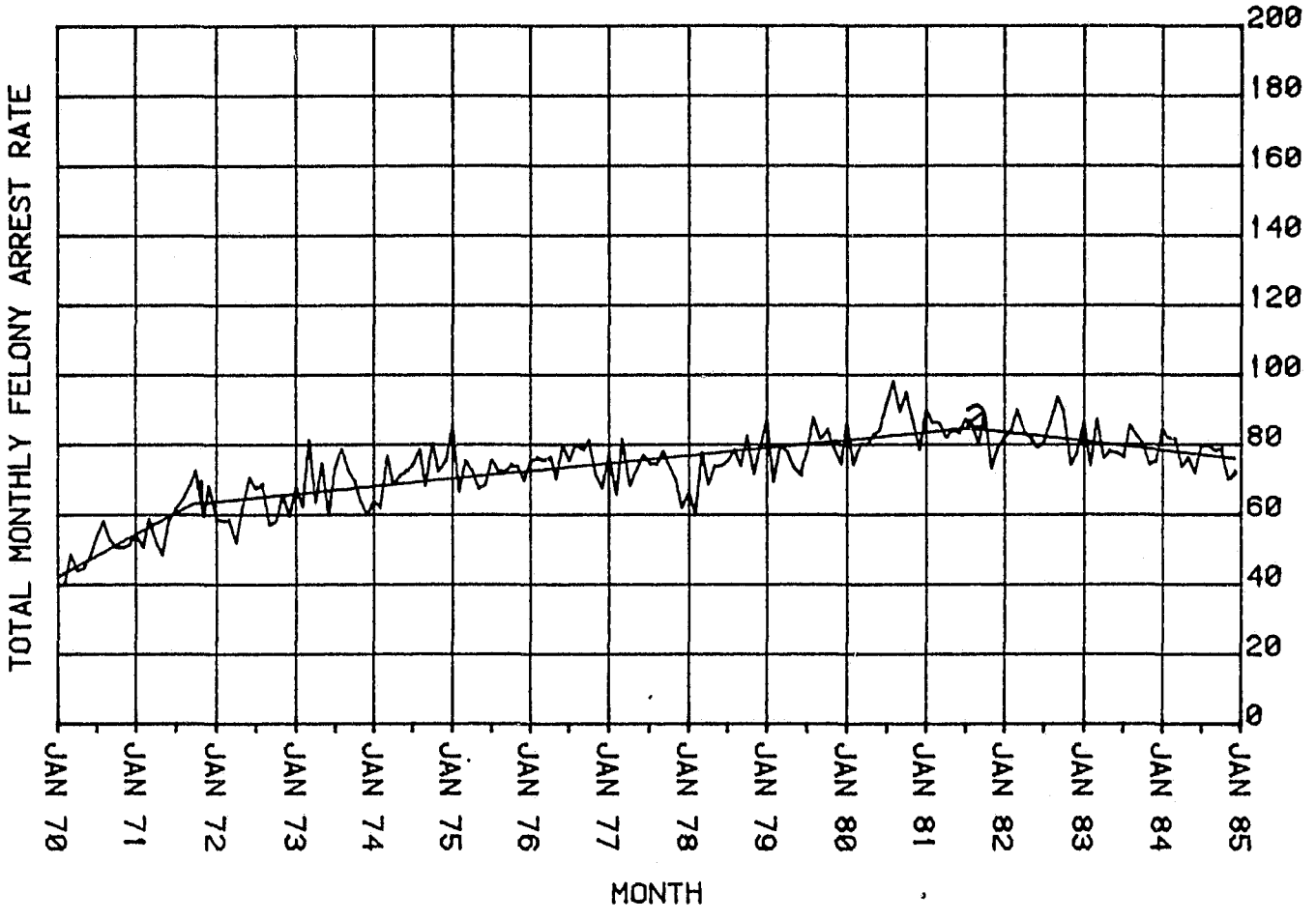


FIRST SLOPE = 0.54
Y ZERO INTERCEPT = 205.05

PCT SS EXPLAINED = 56.36

FIGURE 20

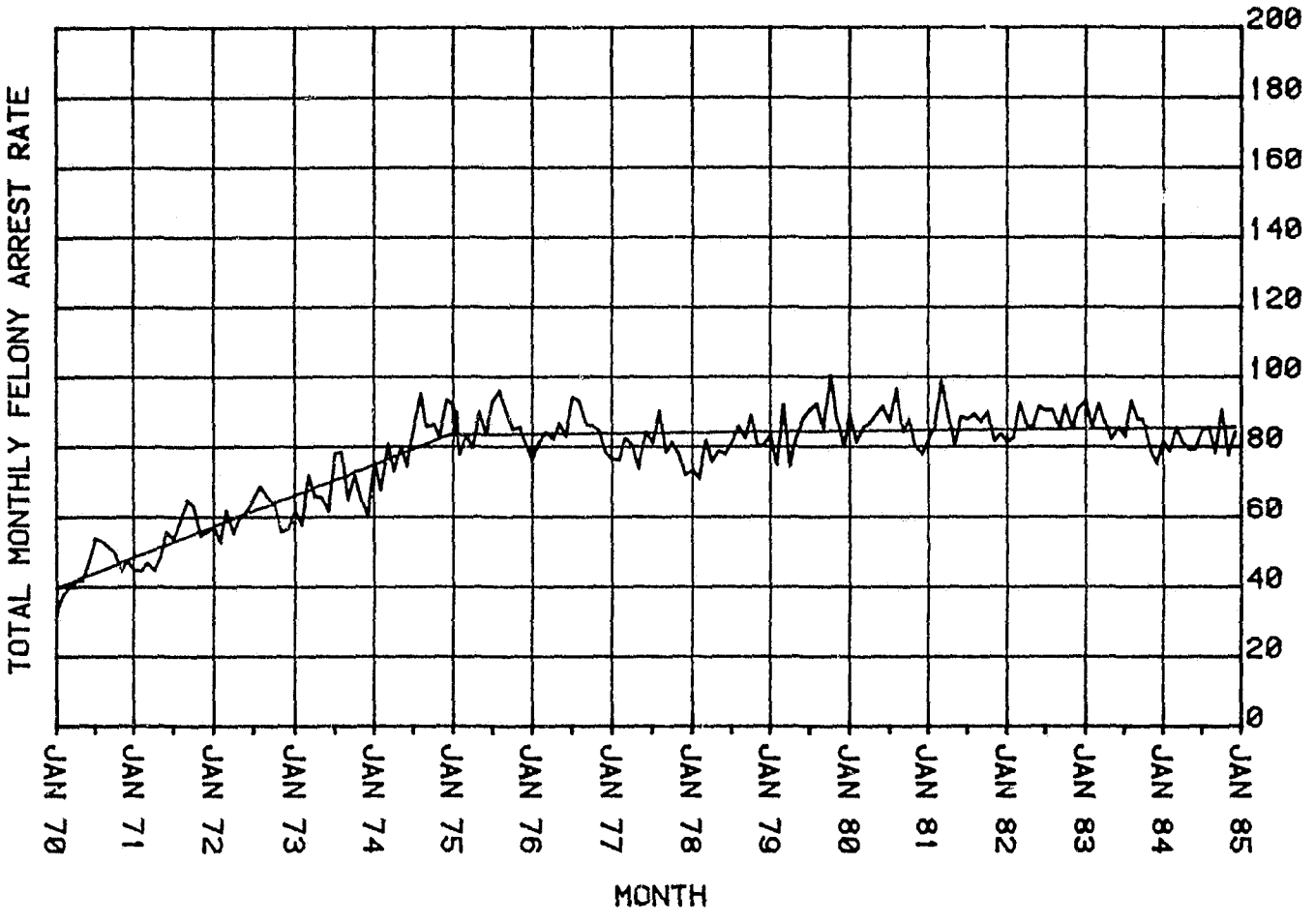
FELONY ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	1.02	FIRST TURNING POINT X:	9/71
Y ZERO INTERCEPT =	41.39	Y:	63.29
SECOND SLOPE =	0.18	SECOND TURNING POINT X:	7/81
Y ZERO INTERCEPT =	59.36	Y:	84.84
THIRD SLOPE =	-0.22	PCT SS EXPLAINED =	74.46
Y ZERO INTERCEPT =	115.68		

FIGURE 21

FELONY ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

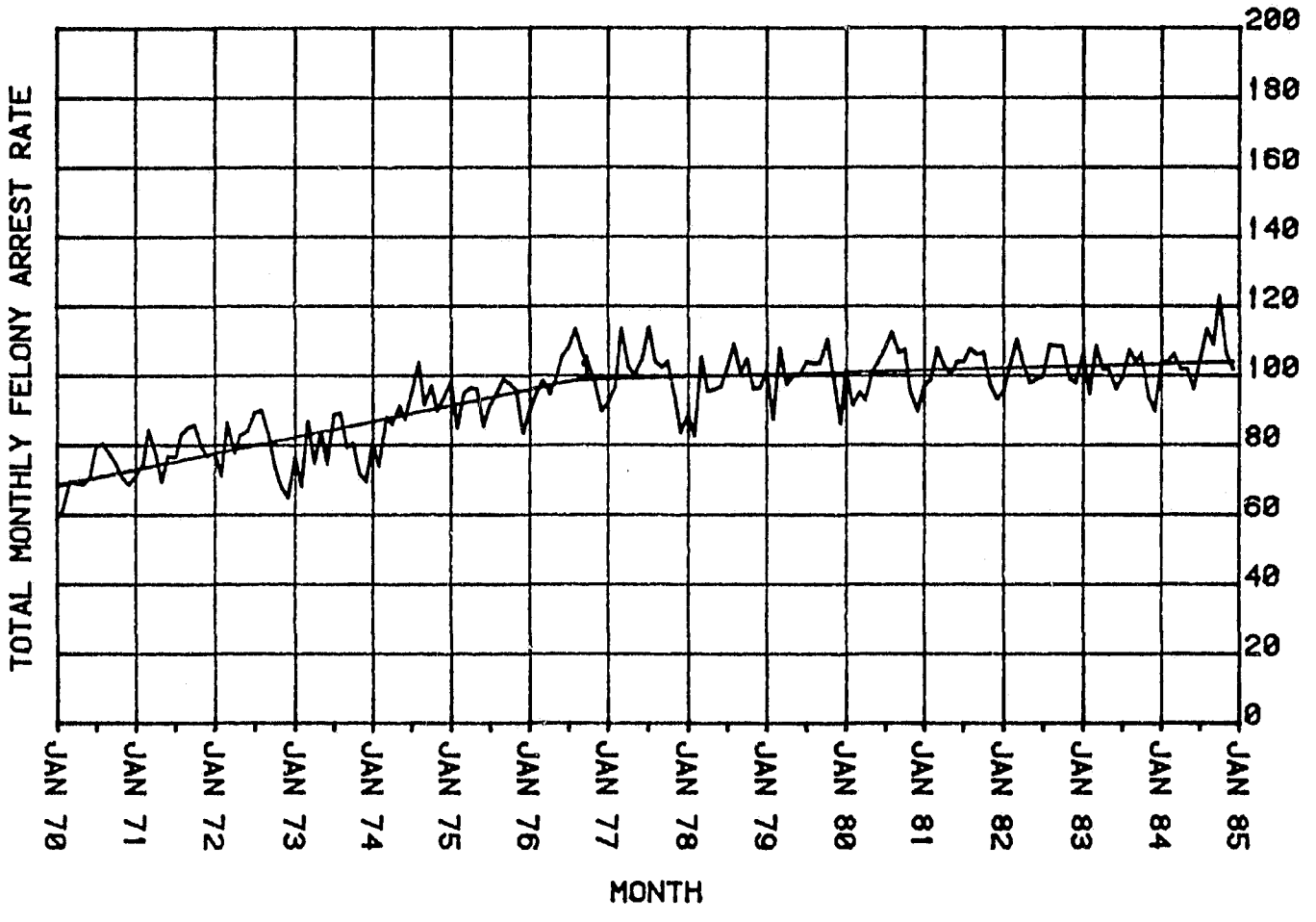


FIRST SLOPE =	0.74
Y ZERO INTERCEPT =	38.90
SECOND SLOPE =	0.02
Y ZERO INTERCEPT =	82.33

FIRST TURNING POINT X: 12/74
Y: 83.48
PCT SS EXPLAINED = 84.01

FIGURE 22

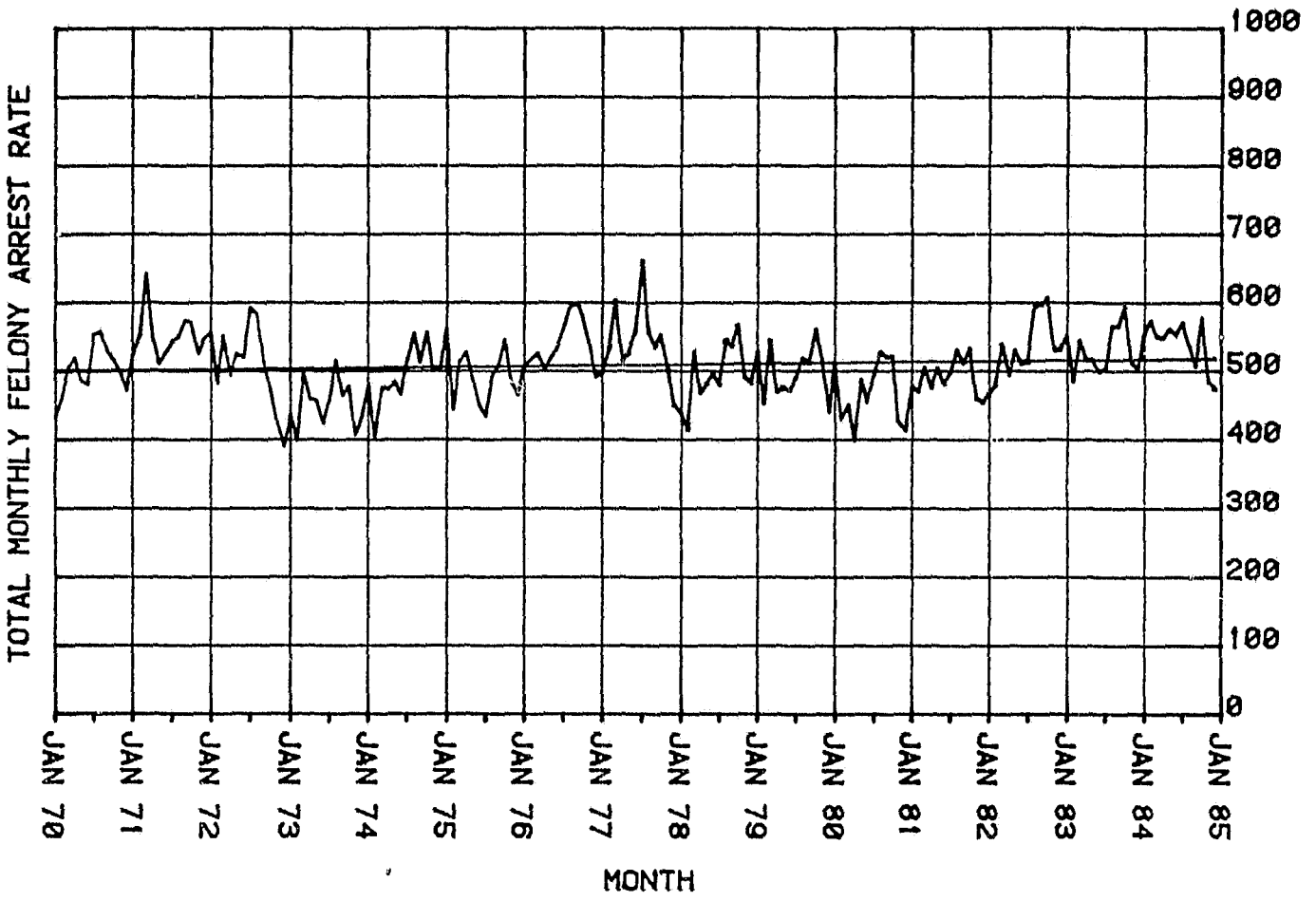
FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.38	FIRST TURNING POINT X:	8/76
Y ZERO INTERCEPT =	68.18	Y:	98.71
SECOND SLOPE =	0.05	PCT SS EXPLAINED =	71.10
Y ZERO INTERCEPT =	94.41		

FIGURE 23

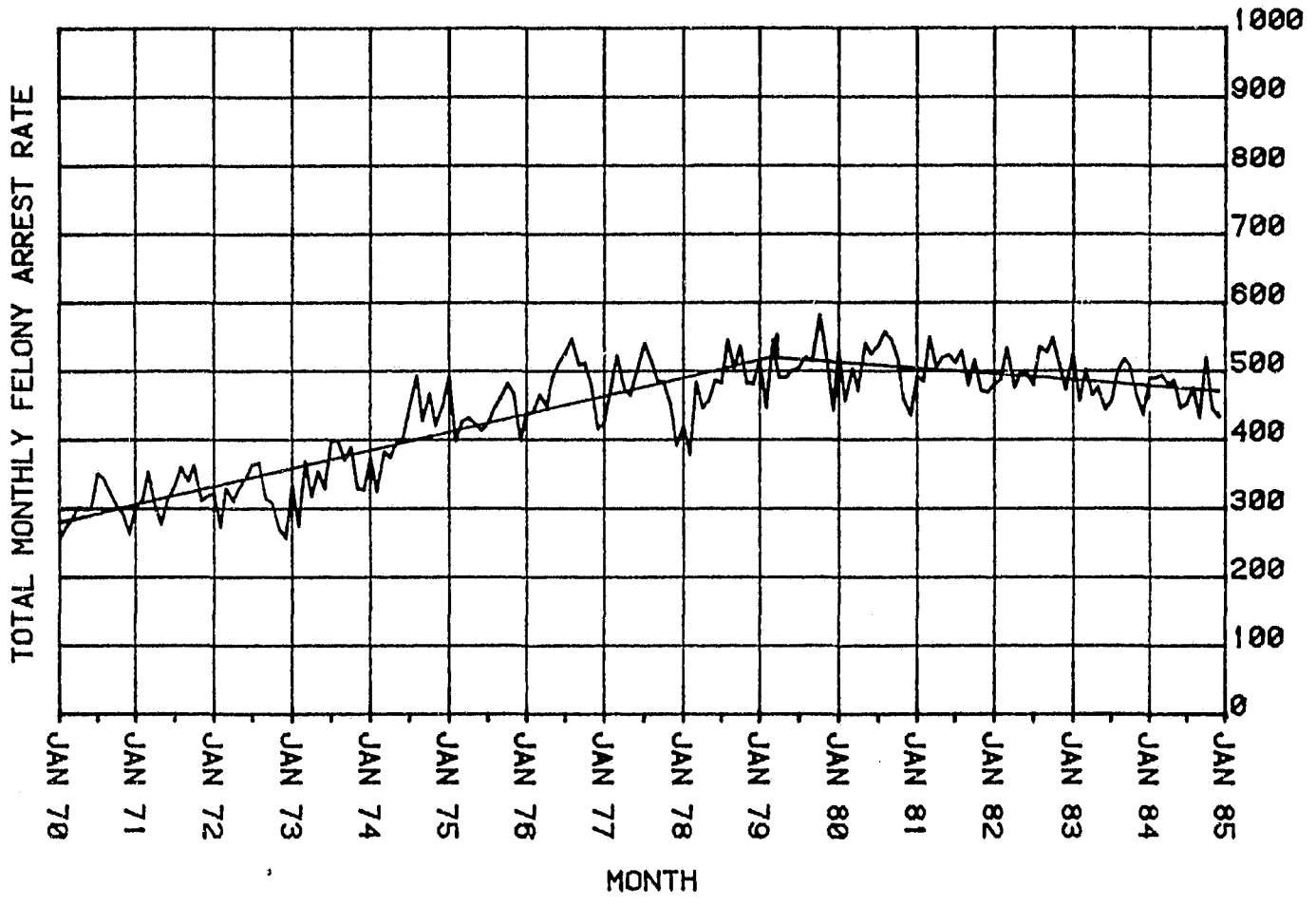
FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.10 PCT SS EXPLAINED = 1.14
Y ZERO INTERCEPT = 500.15

FIGURE 24

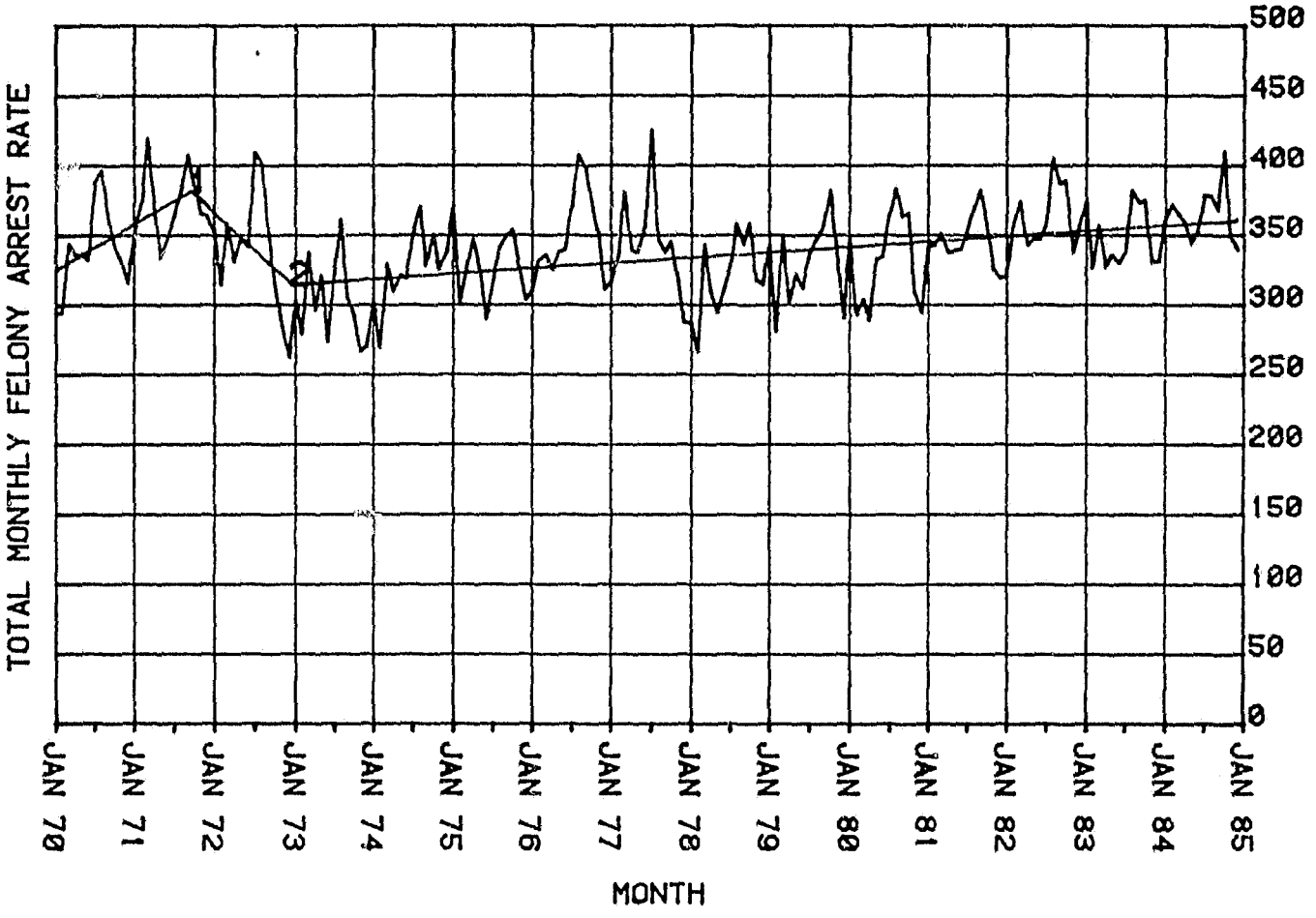
FELONY ARREST RATE PER 100,000 POP, MALES, AGES 16 THROUGH 19
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	2.19	FIRST TURNING POINT X:	2/79
Y ZERO INTERCEPT =	277.40	Y:	519.63
SECOND SLOPE =	-0.70	PCT SS EXPLAINED =	79.46
Y ZERO INTERCEPT =	596.92		

FIGURE 25

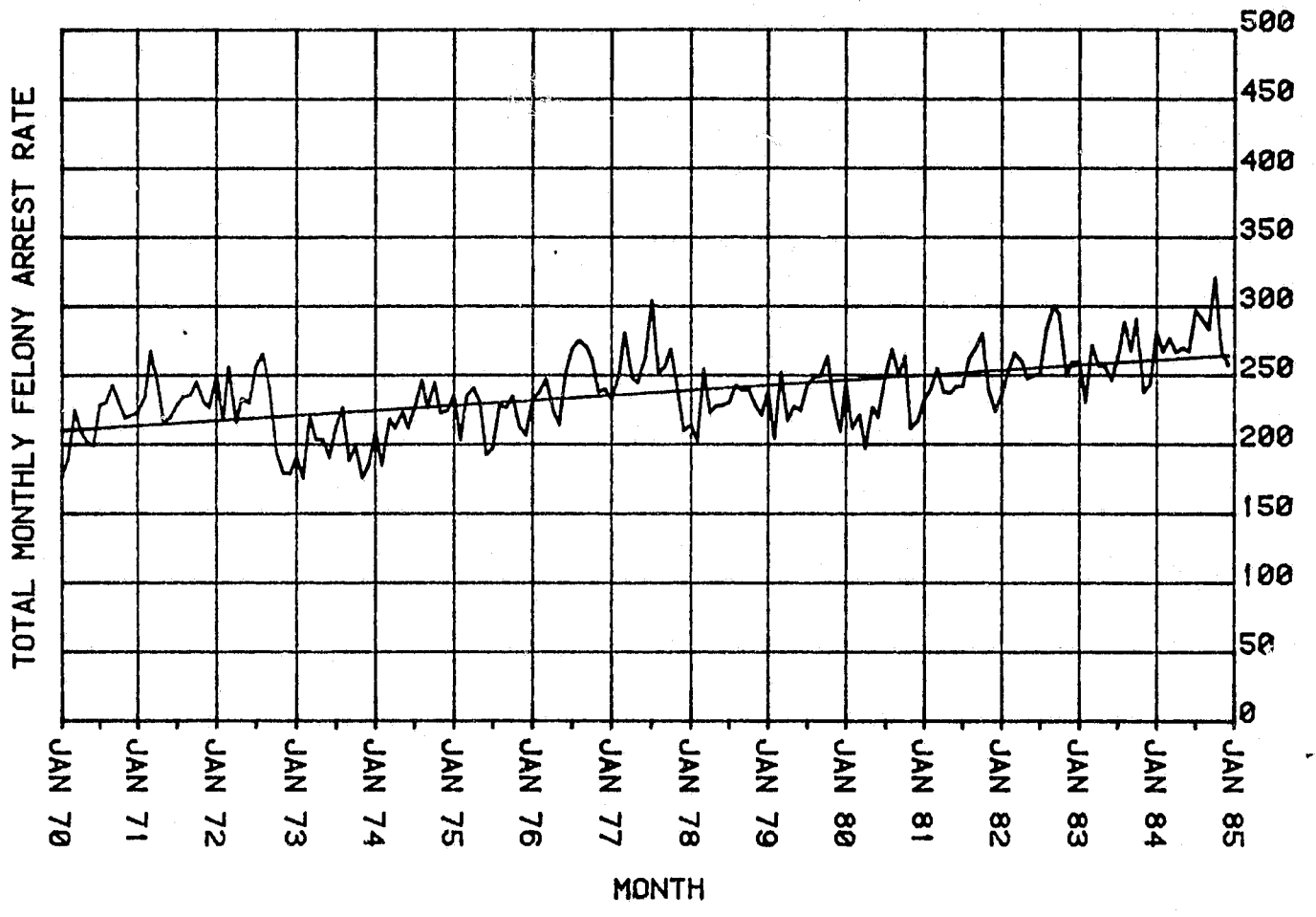
FELONY ARREST RATE PER 100,000 POP, MALES, AGES 20 THROUGH 24
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST	SLOPE =	2.76	FIRST TURNING POINT	X: 9/71
Y ZERO	INTERCEPT =	322.16		Y: 381.55
SECOND	SLOPE =	-4.46	SECOND TURNING POINT	X: 12/72
Y ZERO	INTERCEPT =	477.54		Y: 314.57
THIRD	SLOPE =	0.32	PCT SS EXPLAINED =	22.26
Y ZERO	INTERCEPT =	302.86		

FIGURE 26

FELONY ARREST RATE PER 100,000 POP, MALES, AGES 25 THROUGH 29
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

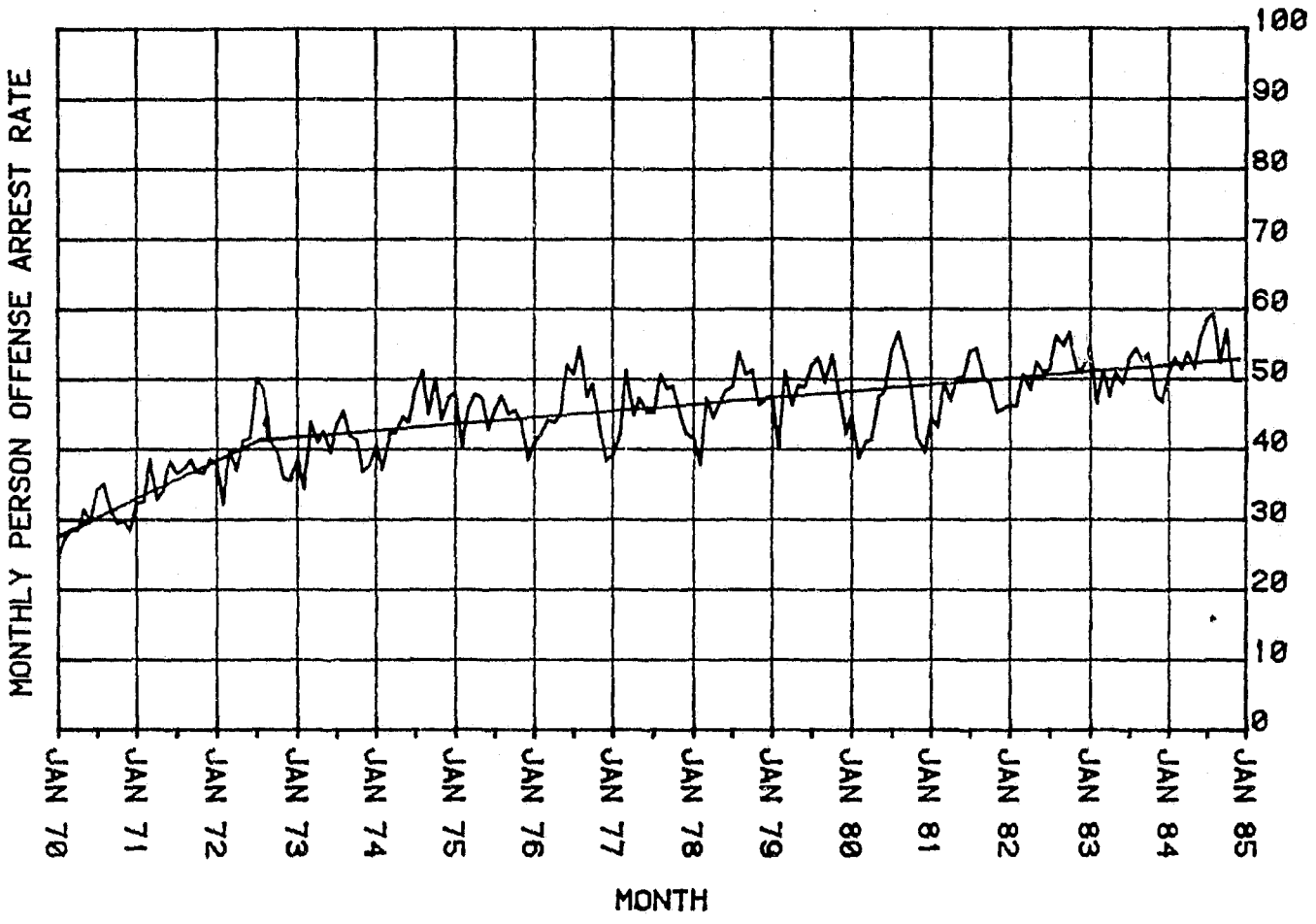


FIRST SLOPE = 0.31
Y ZERO INTERCEPT = 209.37

PCT SS EXPLAINED = 33.82

FIGURE 27

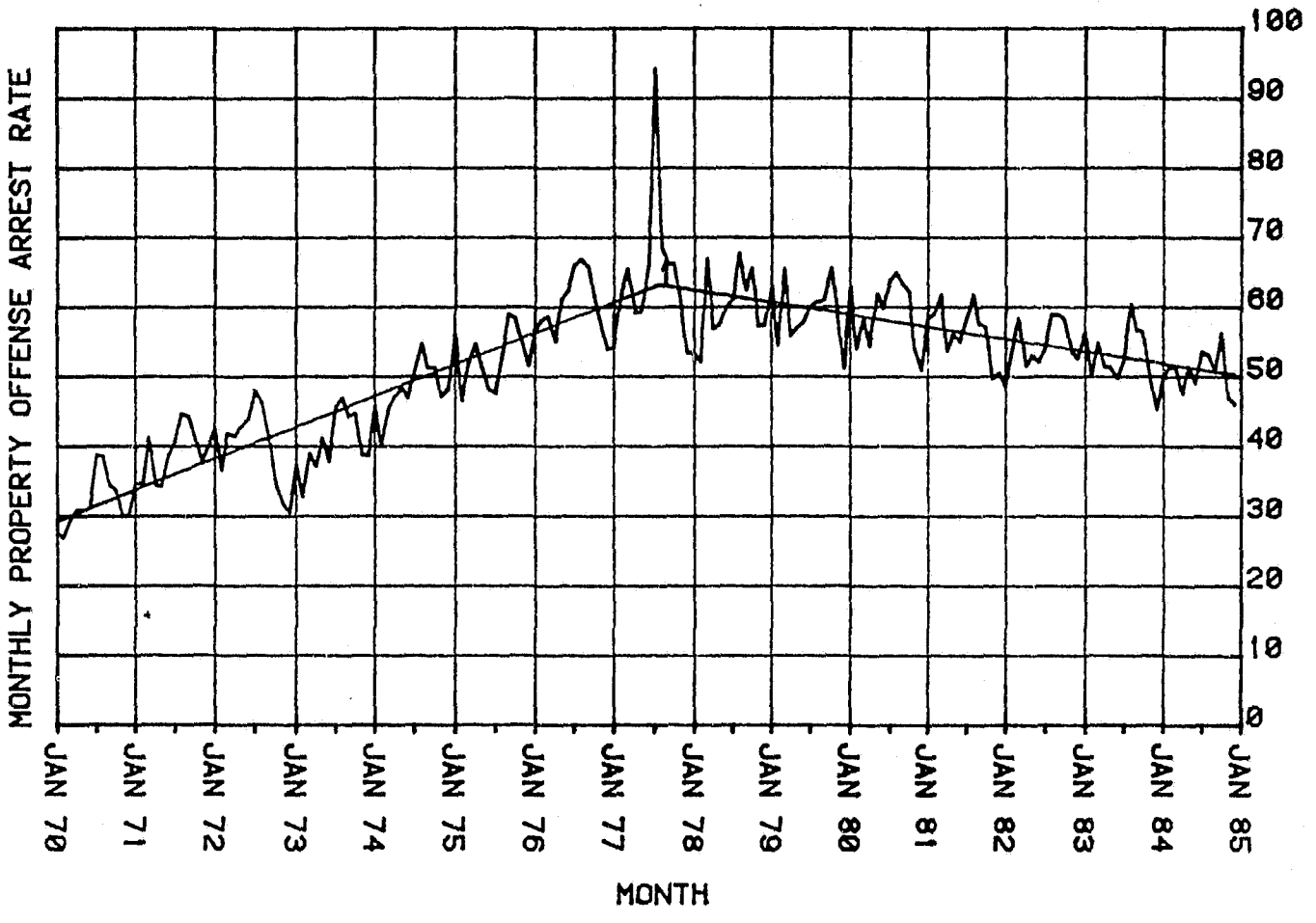
PERSON ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.45	FIRST TURNING POINT X:	7/72
Y ZERO INTERCEPT =	27.19	Y:	41.42
SECOND SLOPE =	0.08	PCT SS EXPLAINED =	70.84
Y ZERO INTERCEPT =	38.99		

FIGURE 28

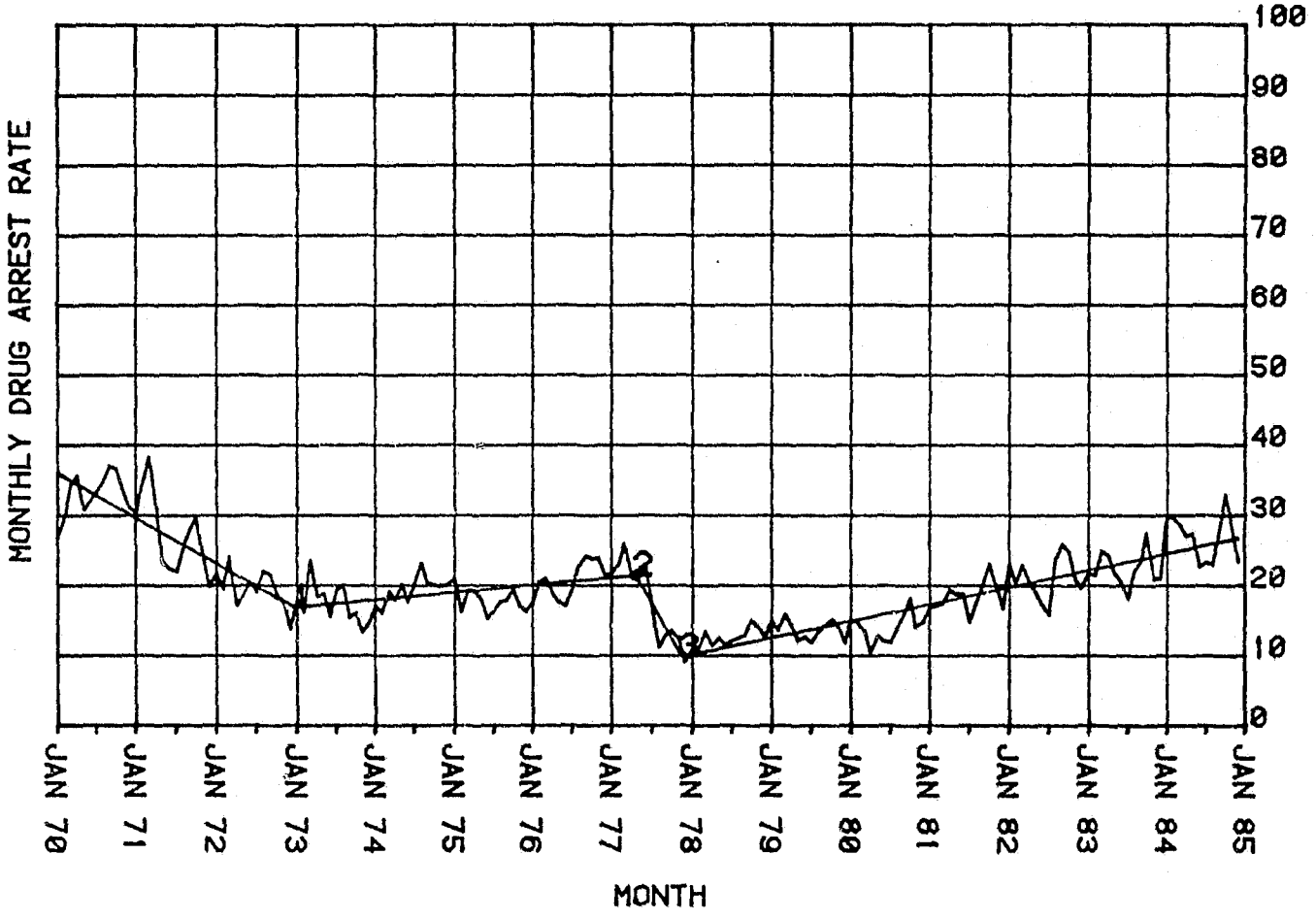
PROPERTY ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.37	FIRST TURNING POINT X:	7/77
Y ZERO INTERCEPT =	28.91	Y:	63.16
SECOND SLOPE =	-0.15	PCT SS EXPLAINED =	77.72
Y ZERO INTERCEPT =	76.54		

FIGURE 29

DRUG ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE

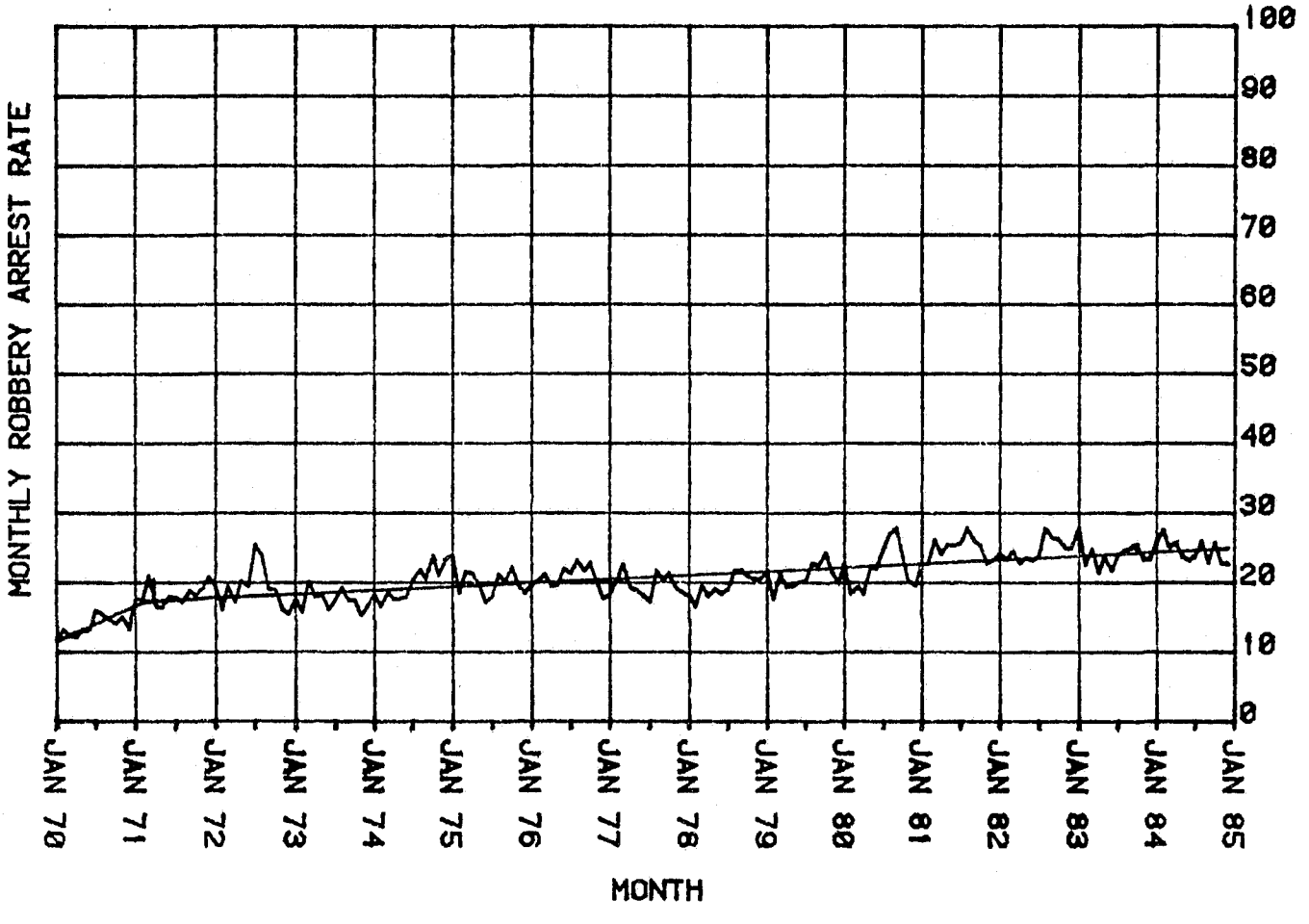


FIRST SLOPE =	-0.54	
Y ZERO INTERCEPT =	36.56	
SECOND SLOPE =	0.09	
Y ZERO INTERCEPT =	13.80	
THIRD SLOPE =	-1.66	
Y ZERO INTERCEPT =	168.08	
FOURTH SLOPE =	0.20	
Y ZERO INTERCEPT =	-9.22	

FIRST TURNING POINT	X: 12/72
	Y: 16.95
SECOND TURNING POINT	X: 4/77
	Y: 21.43
THIRD TURNING POINT	X: 11/77
	Y: 9.83
PCT SS EXPLAINED =	78.94

FIGURE 30

ROBBERY ARREST RATE PER 100,000 POP, MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.43	FIRST TURNING POINT X:	2/71
Y ZERO INTERCEPT =	11.22	Y:	17.39
SECOND SLOPE =	0.05	PCT SS EXPLAINED =	64.40
Y ZERO INTERCEPT =	16.73		

where there is a lack of congruence there still seems to be a similar change in rates; however, for the rate trend the change is no longer found (by the pattern description method) to be statistically significant. In the figures representing the trends in arrest counts and rates for 20-24 year olds the rate series requires more segments than the count series to represent the change in trends. The difference is only present in the first three years of the time period. A visual inspection of the graphs indicates a similarity in the direction of the monthly observations of counts and rates. Because the best 2-segment fit of the arrest count series was not a significant improvement over a single line representation, the model fitting was stopped at the single line. Had it been allowed to continue, the best 3-segment fit would have been almost identical to the 3-segment representation found for the arrest rate series.

Changes in Comparative Arrest Rates

Regional Differences. It has been shown that the average yearly arrest rates differ among levels of the major demographic variables and that the trends in monthly arrest rates have also differed within these variables. Because of these differences, comparisons of rates will differ at different points in time. Changes in comparative arrest rate ratios over the 15-year period are shown in Table 4. While New York City has typically had rates three times higher than either Suburban New York City or Upstate New York, the ratios have varied over the time period. The New York City to Suburban New YorK City arrest rate ratio ranged from 2.9 to 4.4 during this period. The New York City to Upstate New York arrest rate ratio ranged between 2.7 and 4.7 during this time. Both ratios were increasing during the last four years of the study period.

Racial Differences. Across the time series there was some convergence in the non-White to White arrest rate ratios in each region of the State. In New York City the ratios converged from 4.3 in 1970 to 3.1 in 1984. As noted earlier, the ratios were higher in the Suburban New York City counties and in the Upstate New York region, but these too showed some covergence in arrest rates. In Suburban New York City the ratio declined from 9.8 in 1970 to 6.1 in 1984. In Upstate New York the ratio declined from 9.8 in 1970 to 6.2 in 1984. During this time period White arrest rates increased much more than did non-White rates, thus leading to this convergence. There are alternative plausible explanations for this phenomenon, none of which will be discussed in this report. What is important for this report is the persistence of this phenomenon across all regions of the State. The continuing high ratios should still cause concern for our society.

Age Differences. A comparison of arrest rates between the age groups having the highest arrest rates (16-19 vs. 20-24), shows that the arrest rate ratio has ranged from 0.9 in 1970 to a high of 1.5 in the years 1979-1981. Similar changes occurred in each of the three regions.

TABLE 4
Trends in Comparative Arrest Rate Ratios*, 1970-1984

Year	NYC/SUB	NYC/UPS	RACE-NYS	RACE-NYC	RACE-SUB	RACE-UPS	AGE
1970	4.4	4.7	7.1	4.3	9.8	9.8	0.9
1971	3.9	4.4	7.1	4.4	9.4	9.5	0.9
1972	3.6	3.6	6.4	4.2	7.5	8.7	0.9
1973	2.9	3.0	5.8	3.9	7.0	7.7	1.2
1974	3.1	2.7	5.5	3.8	6.5	6.8	1.3
1975	3.1	2.7	5.3	3.6	6.1	7.0	1.3
1976	3.5	3.1	5.4	3.6	5.7	7.0	1.4
1977	3.8	3.5	5.4	3.5	5.5	6.7	1.4
1978	3.5	3.3	5.1	3.3	5.7	6.2	1.5
1979	3.3	3.1	5.0	3.3	5.8	6.1	1.5
1980	3.0	2.9	4.7	3.1	5.6	5.7	1.5
1981	3.2	3.1	4.8	3.1	6.2	5.8	1.4
1982	3.4	3.3	5.2	3.3	6.1	6.2	1.4
1983	3.6	3.4	5.3	3.4	6.1	5.9	1.4
1984	4.0	3.8	5.1	3.1	6.1	6.2	1.3

*The acronyms for the computed arrest ratios are as follows:

NYC/SUB - The ratio of New York City to Suburban New York City arrest rates for all adult males
NYC/UPS - The ratio of New York City to Upstate New York arrest rates for all adult males
RACE-NYS - The ratio of non-White to White arrest rates in New York State for all adult males
RACE-NYC - The ratio of non-White to White arrest rates in New York City for all adult males
RACE-SUB - The ratio of non-White to White arrest rates in Suburban NewYork City for all adult males
RACE-UPS - The ratio of non-White to White arrest rates in Upstate New York for all adult males
AGE - The ratio of 16-19 to 20-24 year old males' arrest rates in New York State

HOMOGENEITY OF THE FELONY ARREST RATE SERIES

The previous section has focused on the changes that have taken place in felony arrest rates using monthly data. Each trend line has been described in reference to its starting value. While this technique has indicated how and where the rates have changed, it does not provide an overall assessment of how constant the rates have been. In this section attention is focused on the homogeneity of the felony rates within distinct demographic groups. Yearly arrest rates per 1,000 males were used in this stage of the analysis.

Since the arrest rates of the different demographic groups are so disparate, it is difficult to compare the stability of each of these series directly. To overcome this problem, each yearly series was transformed in such a manner that the mean of the series was at zero and each element of the series was expressed as a proportion above or below the 15-year mean. All series were then in the same metric (proportion from the mean) and their standard deviations readily compared. These standard deviations are equivalent to the coefficient of variation, V, of the original series (Blalock, 1972 p. 88). The larger the coefficient, the more a series may be considered to have departed from a flat, trendless line over the time period considered.

The relative stability of the arrest rate series was examined within each demographic group. Examination of the transformed series revealed a degree of regularity that was not easily observed in the original metric (see Figures 31-36). Within any particular race-by-region subgroup, the three age groups tracked each other closely, although the 16-19 year olds showed some tendency to depart from the other two age groups. The series looked very similar to each other across the race and region dimensions as well except for the early years 1970-1972. Within the White series there was a tendency for rates to be increasing during these early years while for non-Whites there had been a rise and then fall in rates during this period.

The coefficients of variation of these series ranged from .01 for many of the non-White series to .07 for the 20-24 year old White male series in Suburban New York City. Such statistics indicate that the fully-disaggregated arrest rate series were relatively "trendless" over the period . The coefficients of the series for 16-19 year old White males and 20-24 year old White males in Suburban New York City suggest some evidence of upward trending.

A further analysis which considers the prior felony conviction history of the arrested individuals yields very different results (see Figures 37-48). The trends for the transformed arrest rates of those with prior felony convictions and those without prior felony convictions were very different from each other. While the "no priors" series had coefficients of variation of less than .05 and did not exhibit any overall trends, the "prior felony" series had coefficients that ranged from .07 to .41 and demonstrated strong upward movement over time.

Figure 31

Difference from Mean Rate, Felony Arrest
New York City, White Males by Age

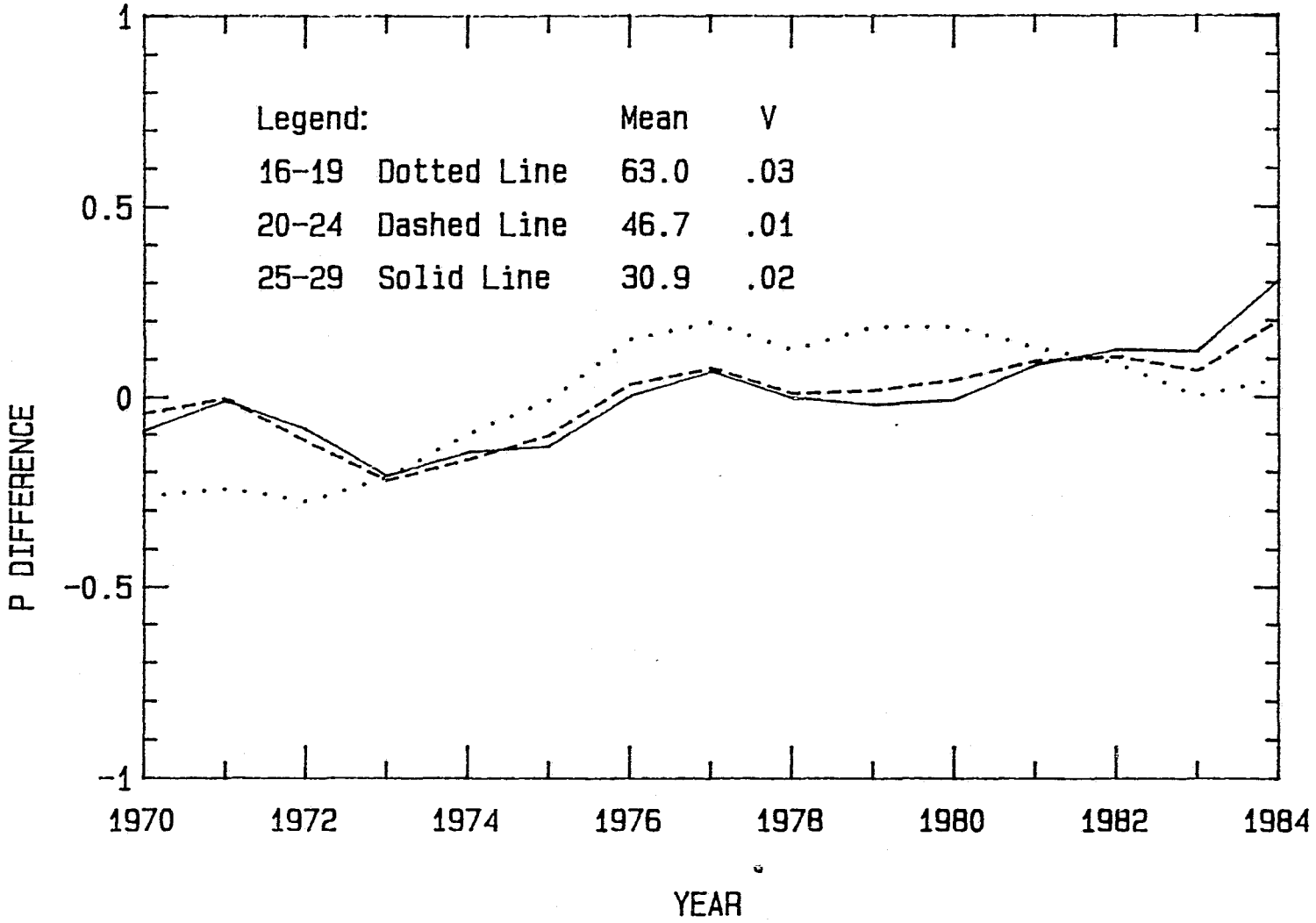


Figure 32

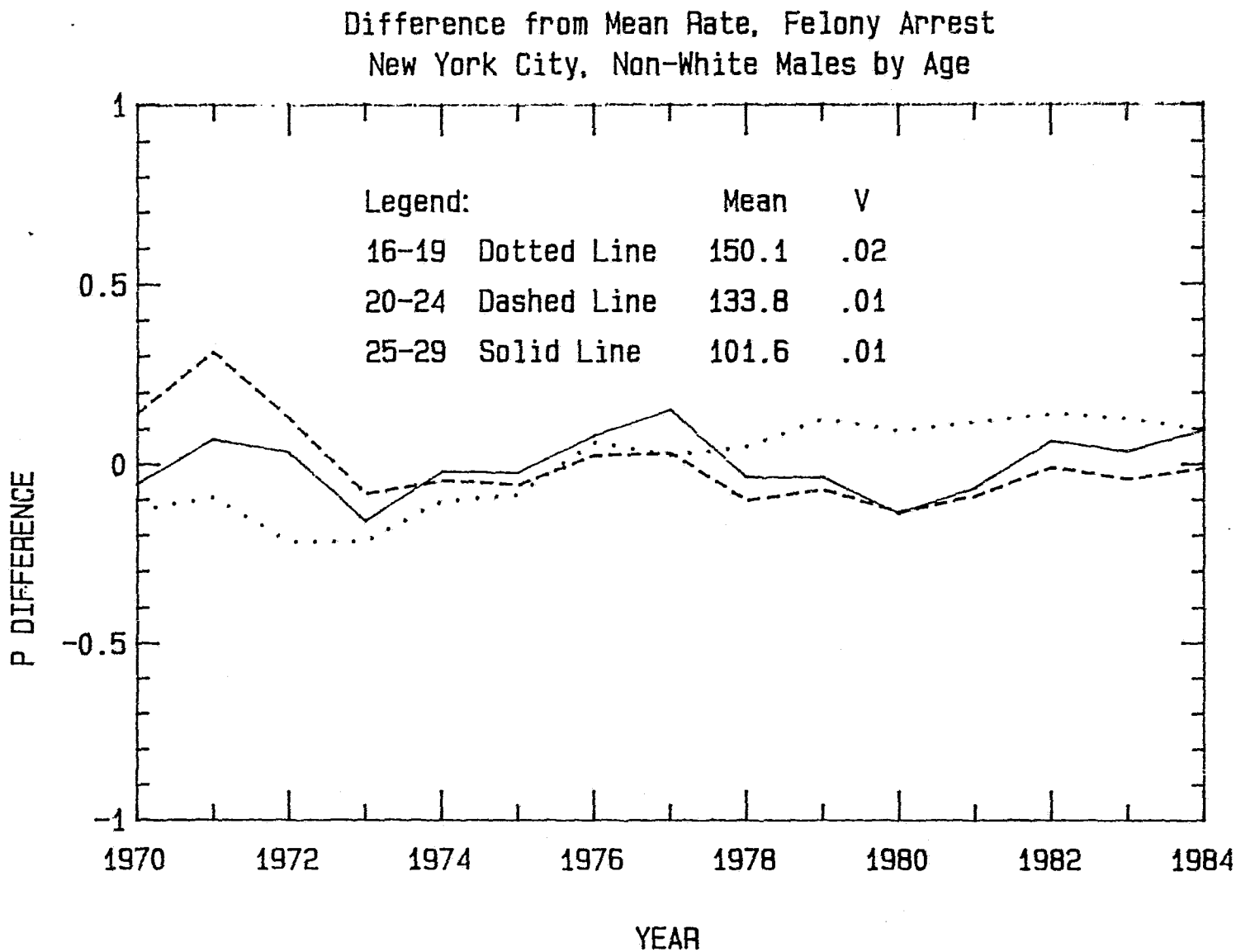

Difference from Mean Rate, Felony Arrest
New York City, Non-White Males by Age
Legend:
Mean
V
16-19 Dotted Line
150.1
.02
20-24 Dashed Line
133.8
.01
25-29 Solid Line
101.6
.01
1
0.5
0
-0.5
-1
P DIFFERENCE
1970
1972
1974
1976
1978
1980
1982
1984
YEAR

Figure 33

Difference from Mean Rate, Felony Arrest
Suburban New York City, White Males by Age

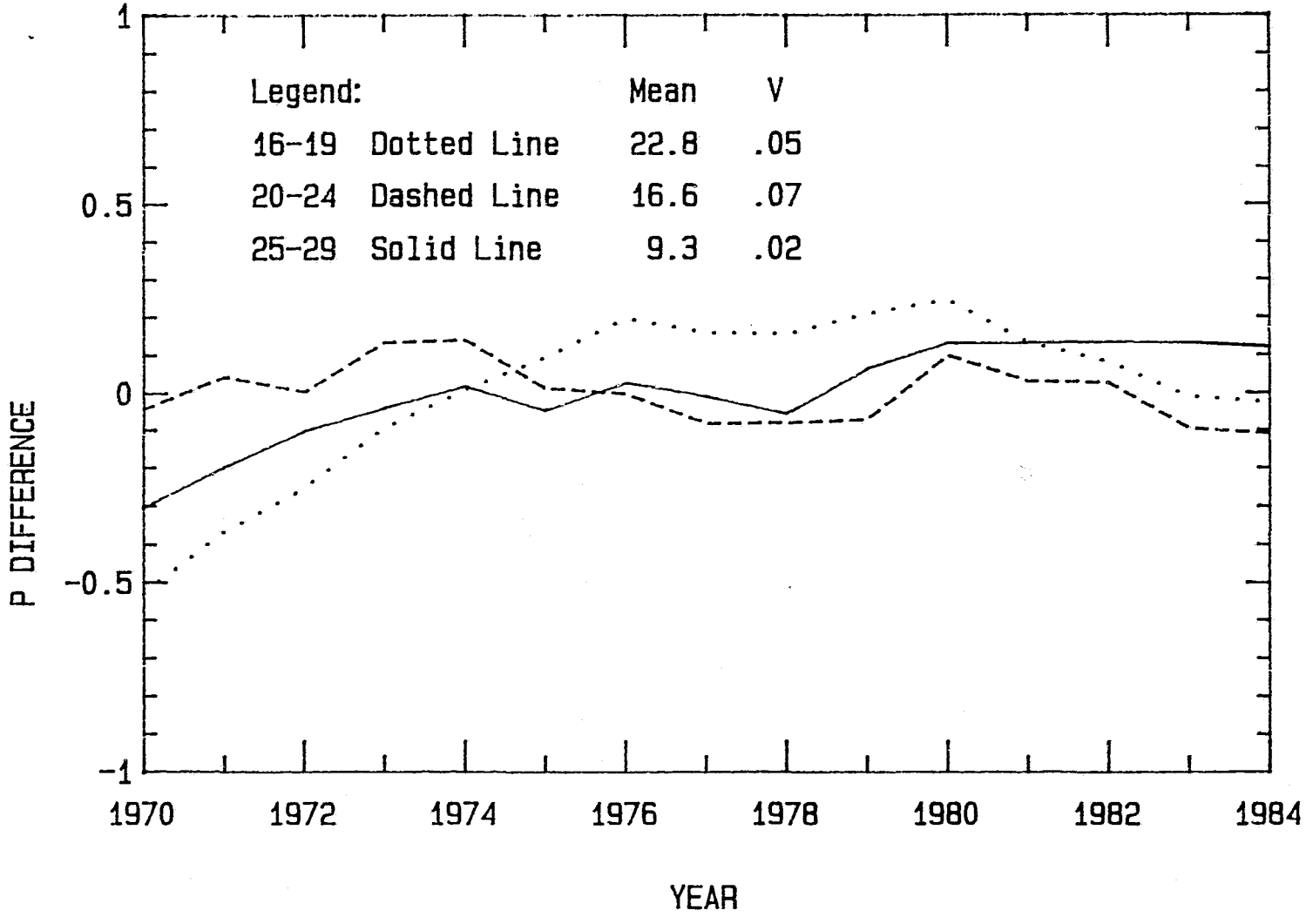


Figure 34

Difference from Mean Rate, Felony Arrest

Suburban New York City, Non-White Males by Age

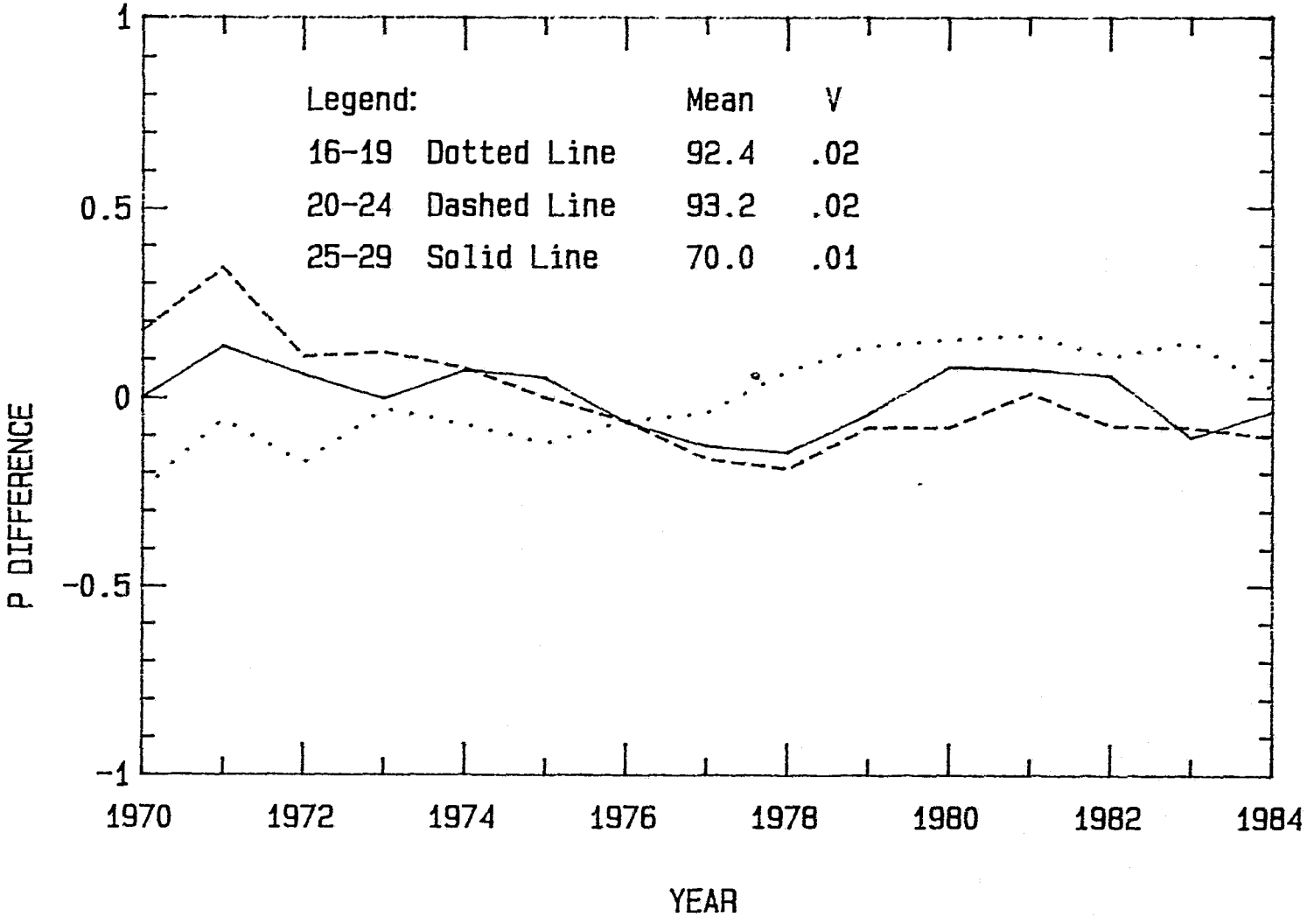


Figure 35

Difference from Mean Rate, Felony Arrest

Upstate New York, White Males by Age

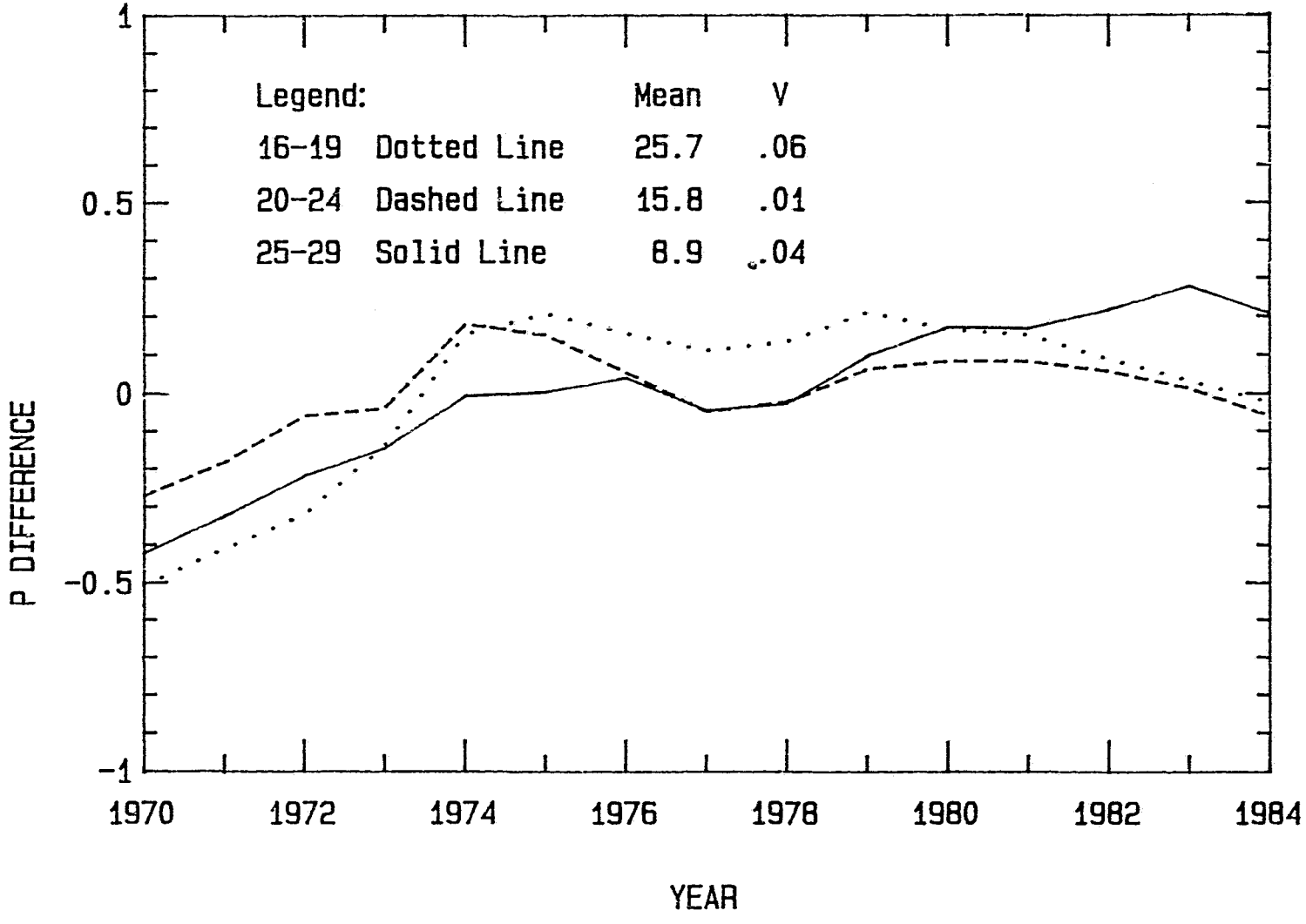


Figure 36

Difference from Mean Rate, Felony Arrest
Upstate New York, Non-White Males by Age

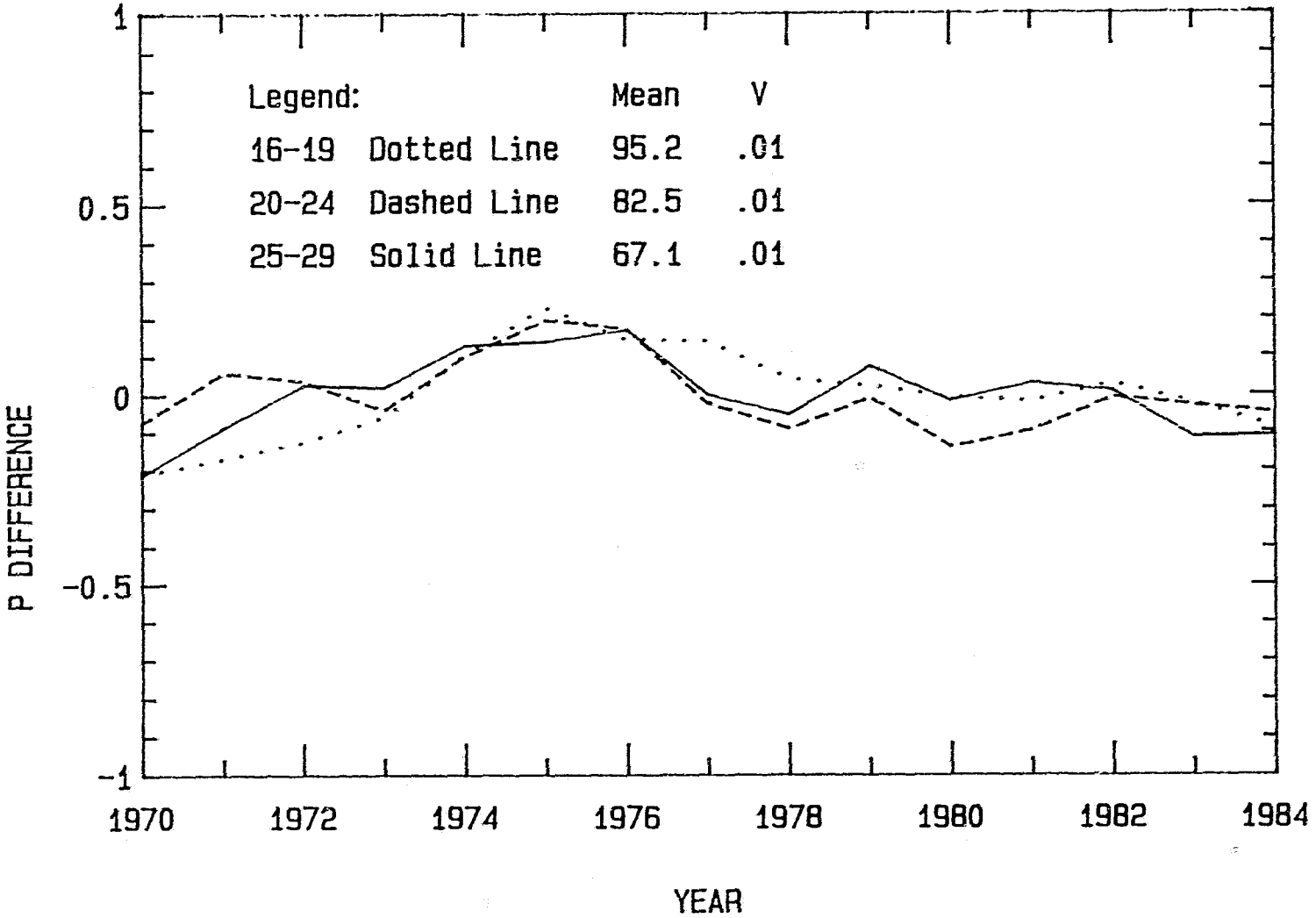


Figure 37

Difference from Mean Rate, No Prior Felony
New York City, White Males by Age

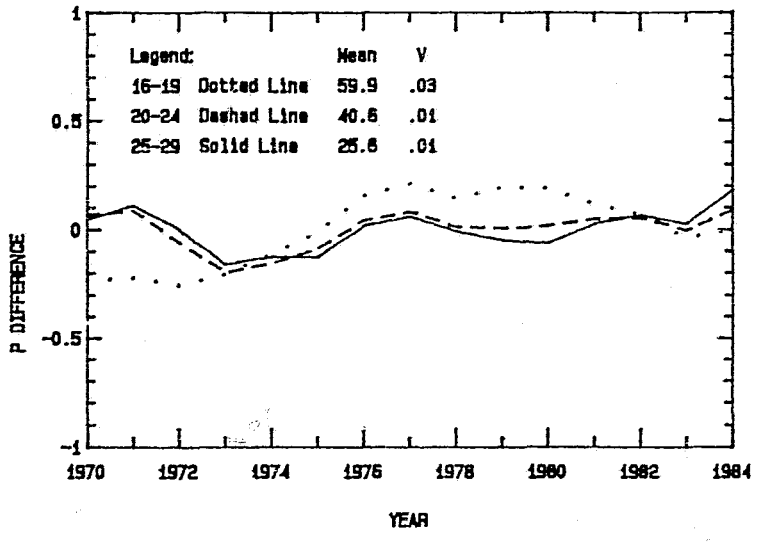


Figure 38

Difference from Mean Rate, No Prior Felony
New York City, Non-White Males by Age

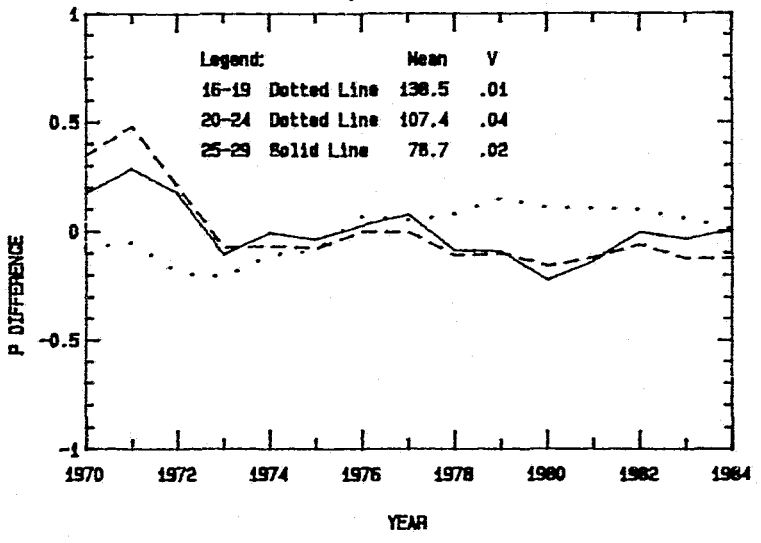


Figure 39

Difference from Mean Rate, Prior Felony Conviction
New York City, White Males by Age

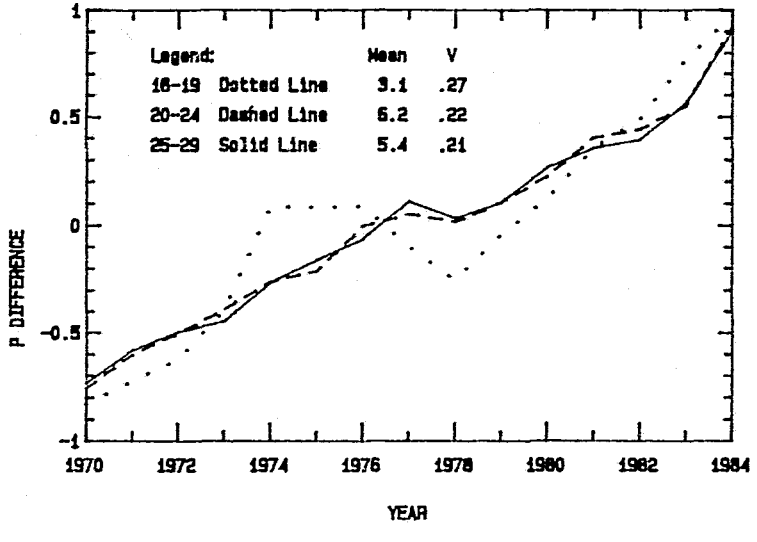


Figure 40

Difference from Mean Rate, Prior Felony Conviction
New York City, Non-White Males by Age

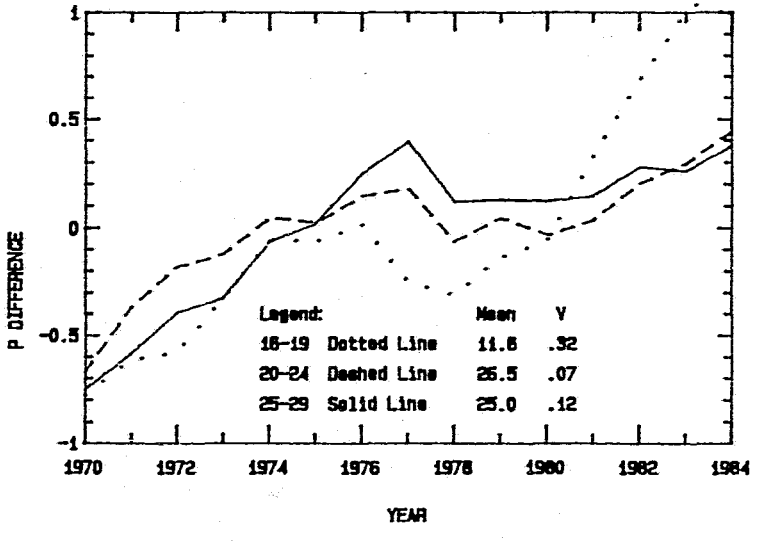


Figure 41

Difference from Mean Rate, No Prior Felony
Suburban New York City, White Males by Age

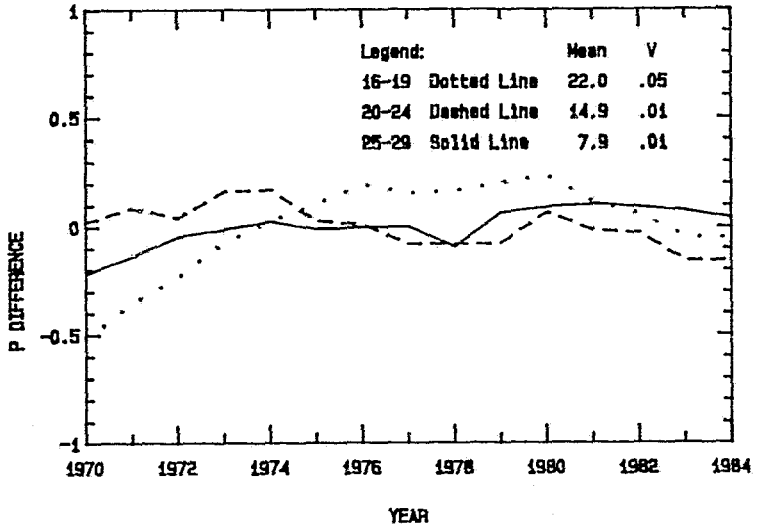


Figure 42

Difference from Mean Rate, No Prior Felony
Suburban New York City, Non-White Males by Age

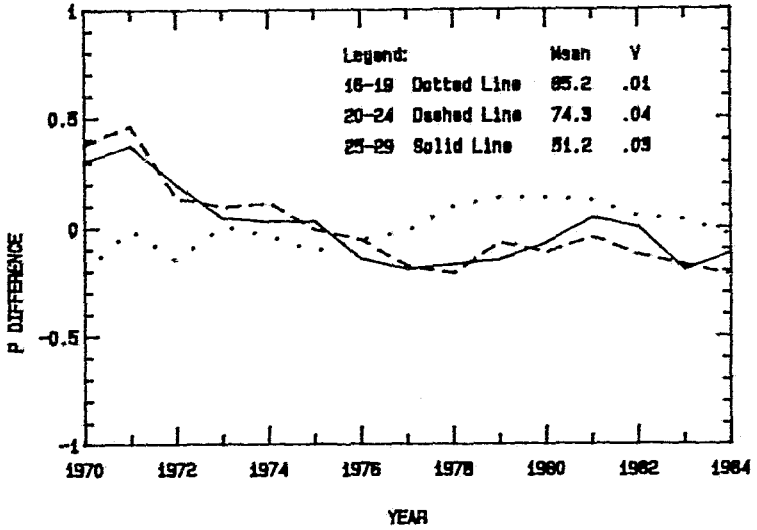


Figure 43

Difference from Mean Rate, Prior Felony Conviction
Suburban New York City, White Males by Age

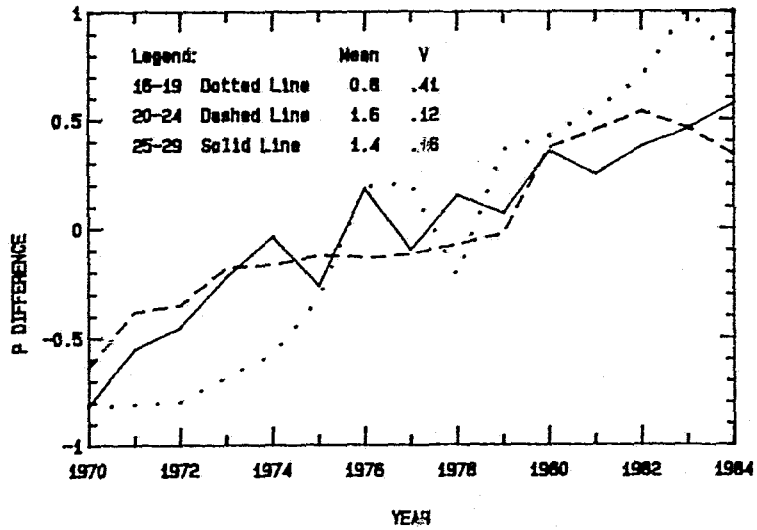


Figure 44

Difference from Mean Rate, Prior Felony Conviction
Suburban New York City, Non-White Males by Age

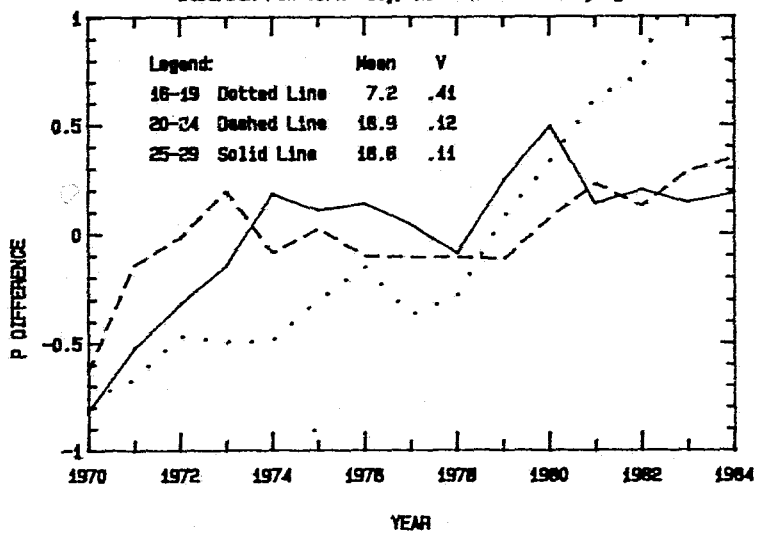


FIGURE 45

Difference from Mean Rate, No Prior Felony
Upstate New York, White Males by Age

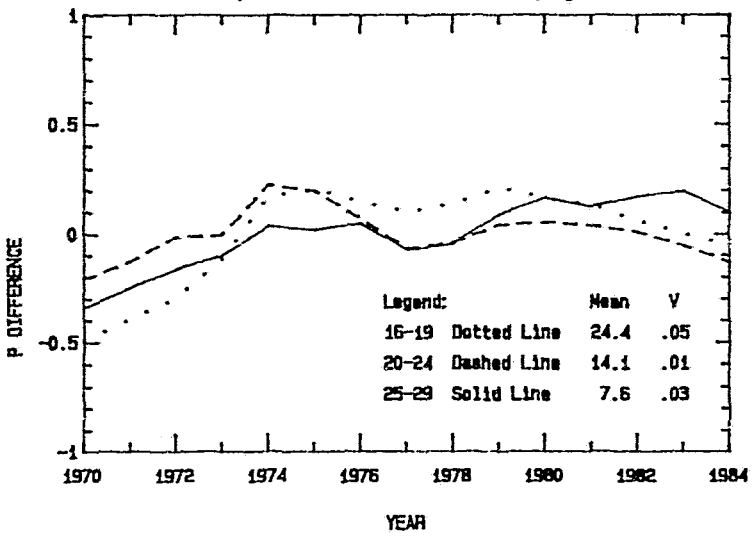


FIGURE 46

Difference from Mean Rate, No Prior Felony
Upstate New York, Non-White Males by Age

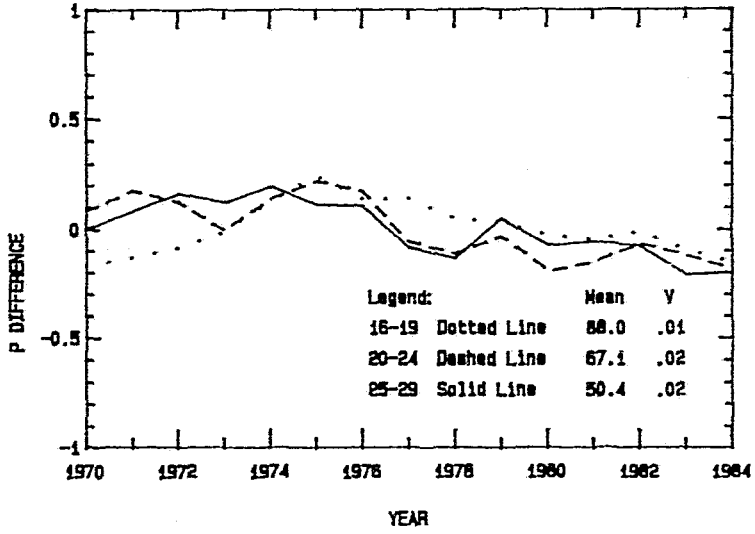


FIGURE 47

Difference from Mean Rate, Prior Felony Conviction
Upstate New York,. White Males by Age

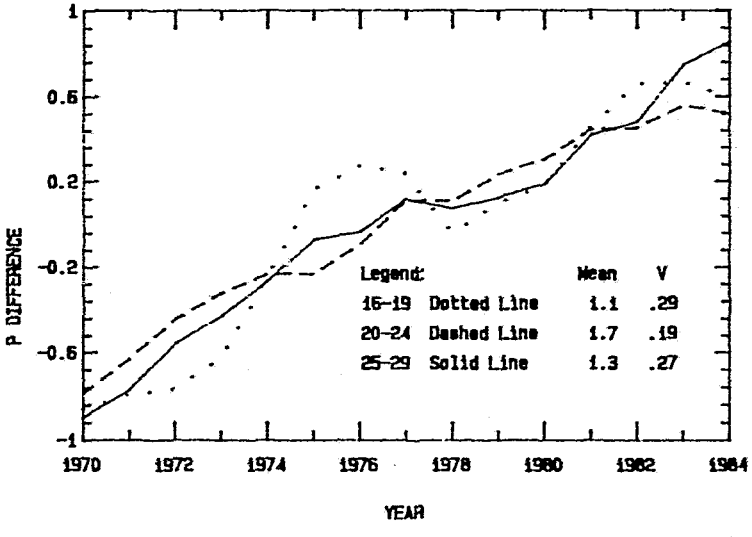
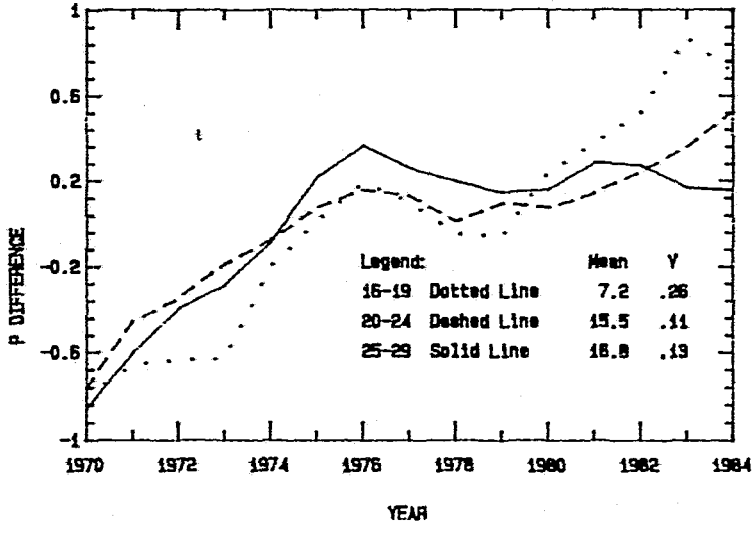


FIGURE 48

Difference from Mean Rate, Prior Felony Conviction
Upstate New York, Non-White Males by Age



Among those with prior felony convictions, the 16-19 year olds typically had higher coefficients of variation than the other two age groups. Much of the upward trend for the 16-19 year olds is concentrated in the time period from 1978 on. It is believed that the restrictions on plea bargaining found within the Violent Felony Laws of 1978 have caused young persons to acquire felony convictions at an earlier age than they had prior to this legislation. Separate analysis, not shown, indicates that the rate for violent felony offense arrests involving individuals with prior felony convictions shows even stronger upward trend than those who were arrested for non-violent felonies.[5]

A further analysis by crime categories revealed similar findings concerning the trends of arrest rates for those with and without prior felony convictions. Only the patterns for drug crimes departed radically from these overall findings. Drug arrest rates were the least stable of the four crime groups examined. Figures 49-60 show that the age groups still tracked each other fairly closely within each race and region grouping but the coefficients of variation indicate there was considerable instability in the rates over time. Unlike the other crime groups, even the no prior felony conviction series show large fluctuations in the rates. The coefficient of variation for those without prior felony convictions ranged from a low of .08 to a high of .57, while among those with prior felony convictions the coefficient ranged from .08 to .86. Only the figures for New York City (Figures 49-52) follow the expected patterns of generally trendless series for those without priors and upwardly trending arrest rates for those groups with prior felony convictions.

It was not feasible to obtain accurate estimates of the number of persons with prior felony convictions in each demographic subgroup living in New York State during each of the 15 years studied. Instead, an estimate of the total population (predicate and nonpredicate) within each demographic subgroup was used in the denominator to calculate arrest rates for those with prior felony convictions. As such, the rates may be considered to be misspecified. One should not necessarily infer from these upward trends that individual predicate offenders have been facing increasing likelihoods of subsequent felony arrests. A different analysis would have to be undertaken to address that issue. Rather, these upward trends may simply reflect increasing numbers of persons having prior felony convictions, thereby increasing the "at risk" pool. If the probability of prior conviction given that a prior arrest occurred has increased over the time period (for any number of reasons) this could result in these upward trends. Alternatively, if the probability of prior conviction given that a prior arrest occurred did not change over the period, but that there had been increasing arrests this could lead to the same increasing rates. This report has already shown that the absolute number of felony arrests have been increasing during the time period under study. In either case, the number of arrests involving persons with prior felony convictions could be expected to increase without any change in the individual probability of arrest. This increase in the numerator without any adjustment in the denominator for the increasing numbers "at risk" would result in increasing rate estimates. Another alternative is that an increasing emphasis on "career criminal" programs, in which extra police and prosecutor resources are applied to events involving these individuals, may indeed have led to a greater individual probability of arrest and subsequent felony conviction for those persons with prior criminal histories.

Figure 49

Difference from Mean Rate, Drug Offense, No Prior Felony
New York City, White Males by Age

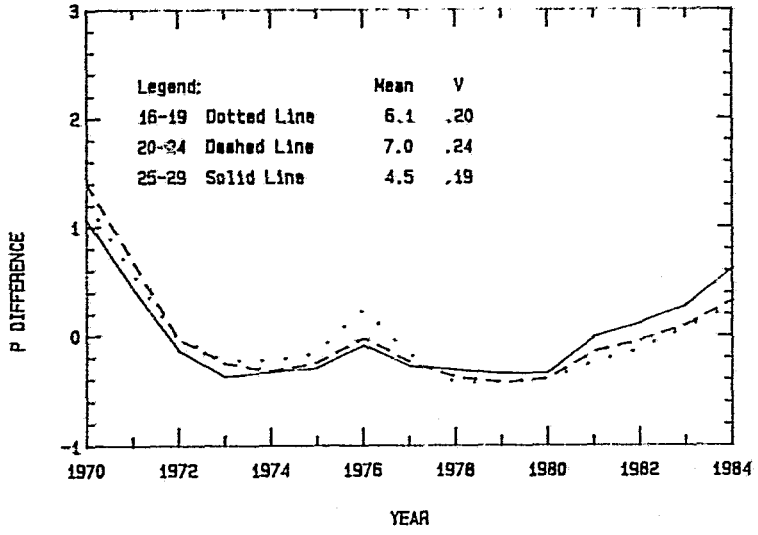


Figure 50

Difference from Mean Rate, Drug Offense, No Prior Felony
New York City, Non-White Males by Age

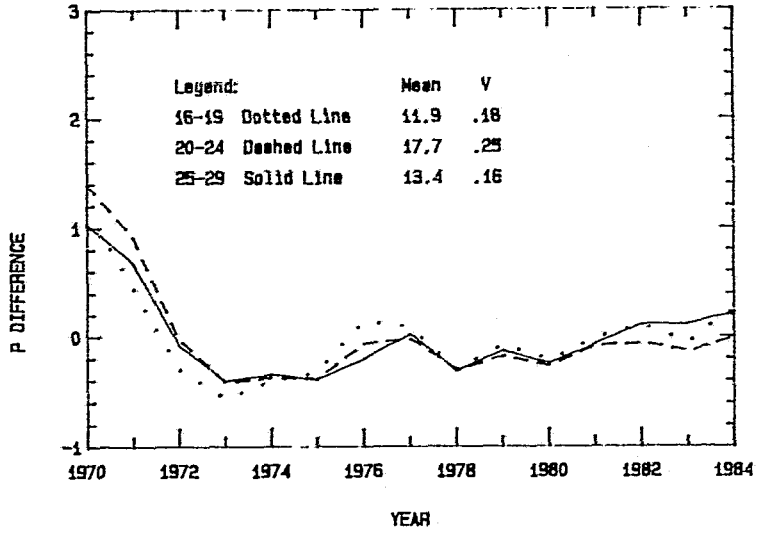


FIGURE 51

Difference from Mean Rate, Drug Offense, Prior Felony Conviction
New York City, White Males by Age

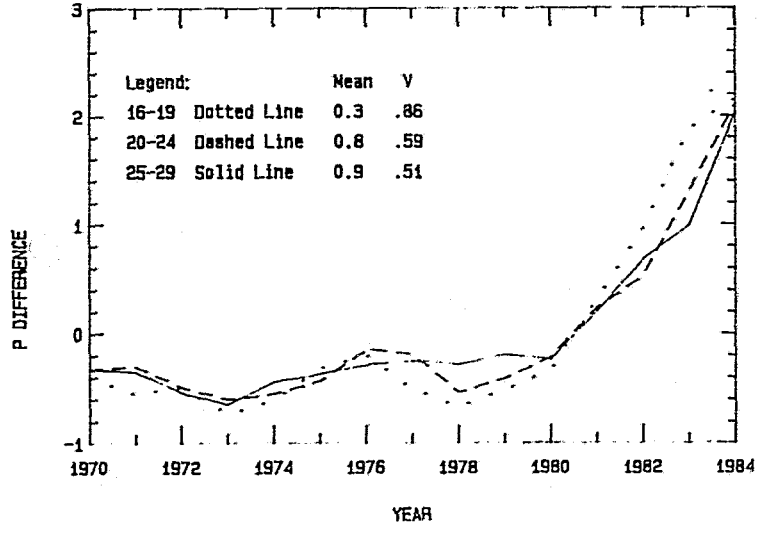


FIGURE 52

Difference from Mean Rate, Drug Offense, Prior Felony Conviction
New York City, Non-White Males by Age

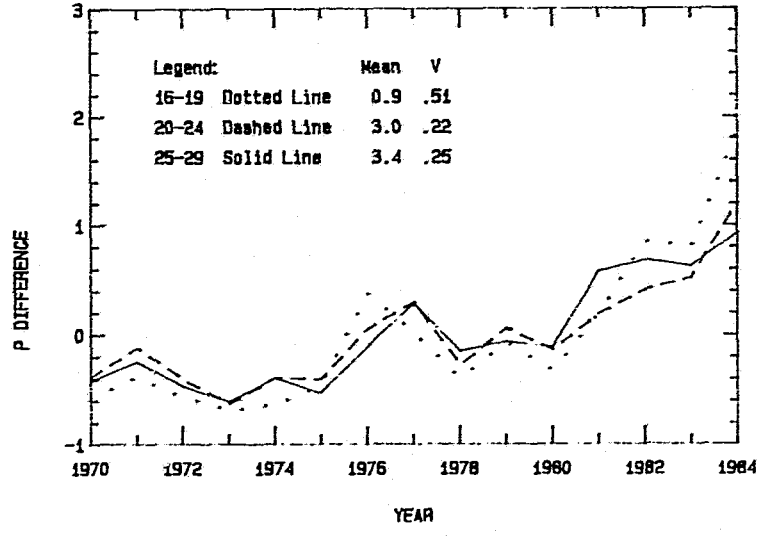


FIGURE 53
Difference from Mean Rate, Drug Offense, No Prior Felony
Suburban New York City, White Males by Age

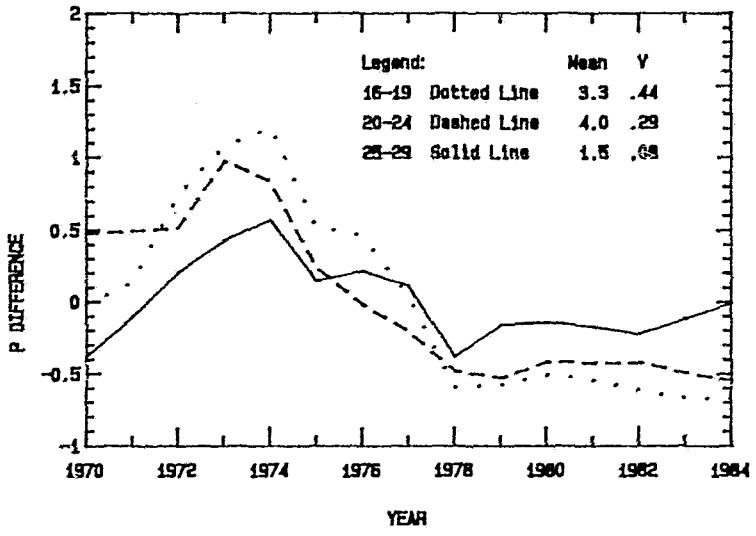


FIGURE 54
Difference from Mean Rate, Drug Offense, No Prior Felony
Suburban New York City, Non-White Males by Age

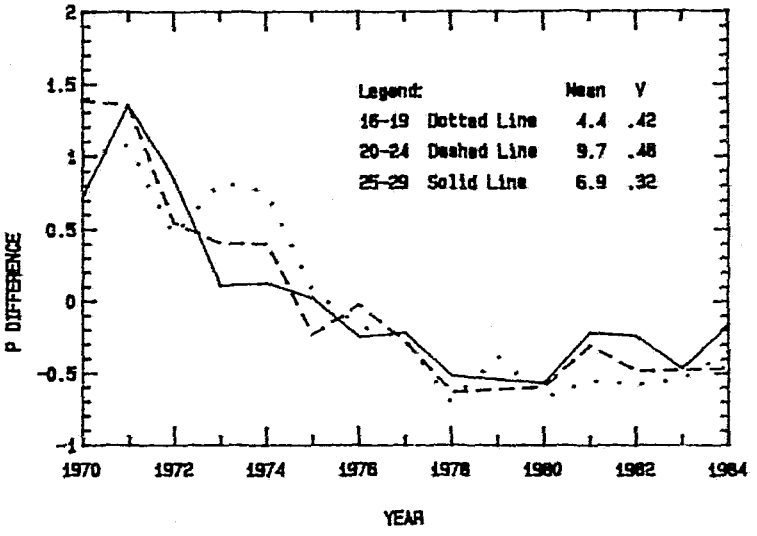


FIGURE 55
Difference from Mean Rate, Drug Offense, Prior Felony Conviction
Suburban New York City, White Males by Age

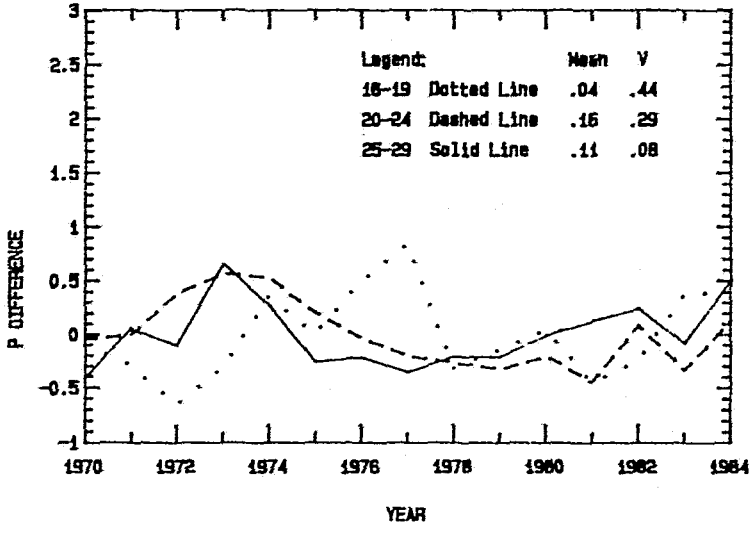


FIGURE 56
Difference from Mean Rate, Drug Offense, Prior Felony Conviction
Suburban New York City, Non-White Males by Age

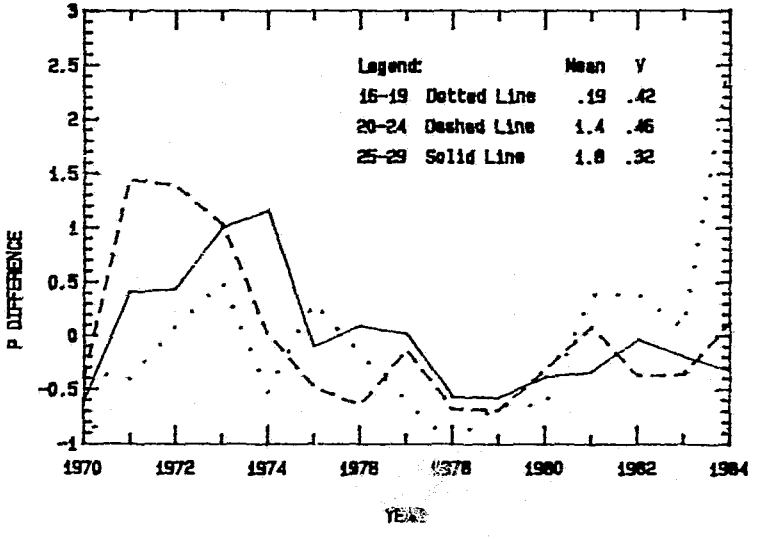


FIGURE 57
Difference from Mean Rate, Drug Offense, No Prior Felony
Upstate New York, White Males by Age

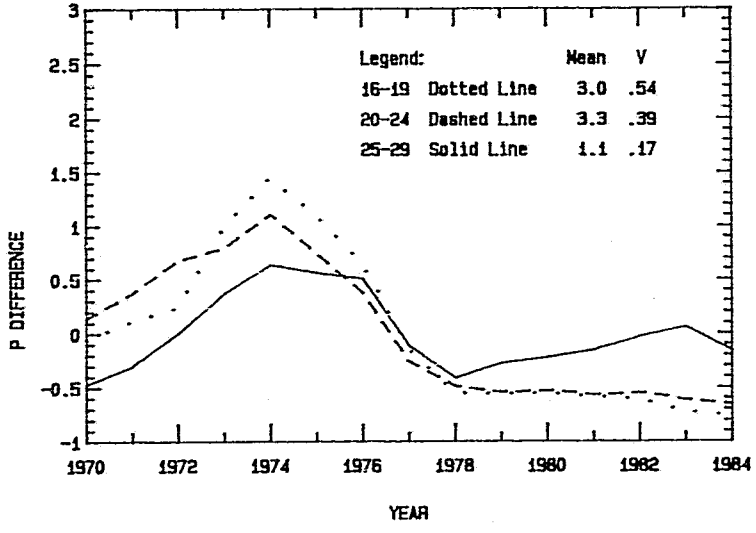


FIGURE 58
Difference from Mean Rate, Drug Offense, No Prior Felony
Upstate New York, Non-White Males by Age

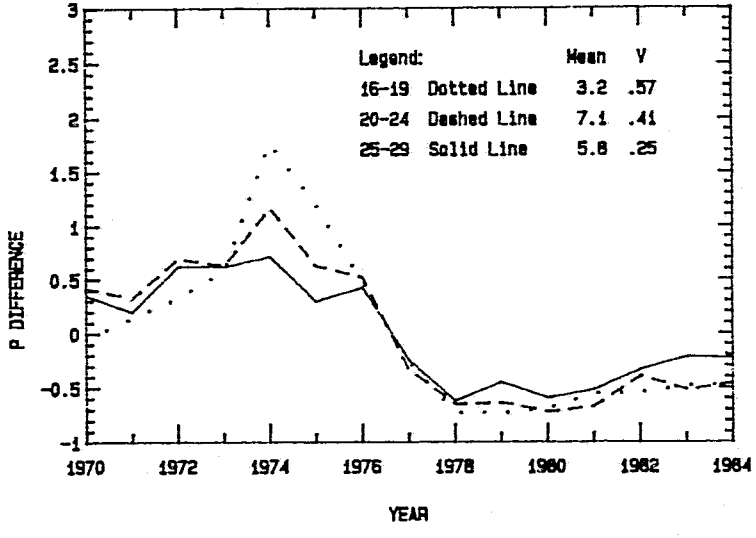


FIGURE 59
Difference from Mean Rate, Drug Offense, Prior Felony Conviction
Upstate New York, White Males by Age

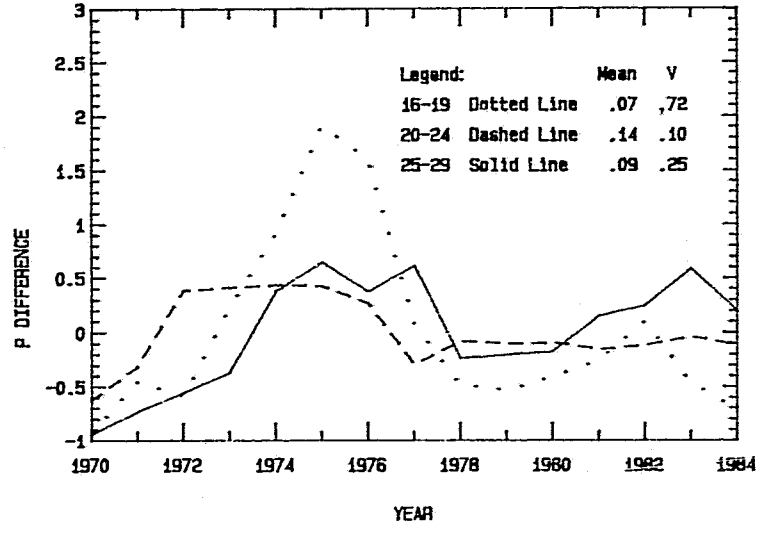
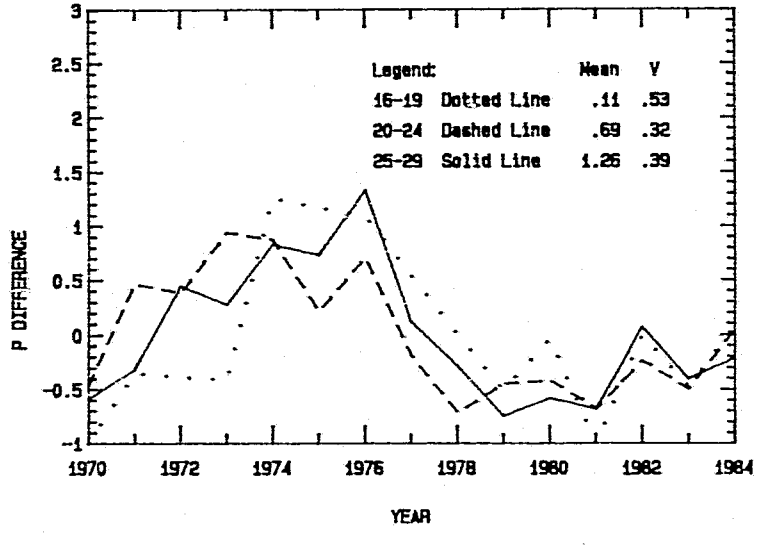


FIGURE 60
Difference from Mean Rate, Drug Offense, Prior Felony Conviction
Upstate New York, Non-White Males by Age



Whatever the reasons for the increasing numbers and rates of arrests involving individuals with prior felony convictions, it is an important finding for persons interested in modeling the criminal justice system and developing New York State criminal justice policies. Under current New York State sentencing statutes, individuals who are convicted of a felony and have prior felony convictions (within certain time constraints) must be given mandatory prison terms. Further, higher minimum and maximum indeterminate sentences are available for them. Since individuals with prior felony convictions are likely to have higher incarceration probabilities once convicted and longer times served in prison, the State correctional system could be expected to grow over time even if arrests and felony convictions remained constant as long as the proportion having prior felony convictions increased. If one assumes that the probability of conviction for those with prior felony convictions is at least as great as those without previous convictions, then the increasing arrest rates for those with prior felony convictions does not bode well for the correctional system in the future.

Based on the demographic hypothesis, there are at least three different factors that could contribute to the increase in arrests that took place between 1970 and 1984:

1. the overall population could have increased (the Size factor);

2. a shift in the distribution of the population along the race and/or age dimensions could have occurred (the Race, Age, and Joint Distribution factors); and

3. the demographic-specific arrest rates could have changed (the Rate factor).

Table 5 shows that all of these factors changed during this time period. In order to obtain some estimate of the effect each change had on arrests, a series of hypothetical exercises were undertaken. In each case a hypothetical arrest count was computed for 1984 by leaving four factors fixed at 1970 levels and allowing the remaining factor to change to 1984 levels. The change in hypothetical counts from the observed counts in 1970 were then compared to the actual changes in counts between 1970 and 1984 to estimate the influence of each factor. The exact calculations are displayed in Table 6.

Sensitivity to Changes in Population Size

An assessment of the impact of change in population size was accomplished by fixing demographic-specific arrest rates and the joint age and race distribution of the population at 1970 levels while using the total 1984 population. Under this scenario, the total number of arrests in 1984 would have been 91,969 while the actual number of 1984 arrests in 1984 was 131,854. Change in population size alone accounted for 10 percent of the observed change in arrest counts.

Sensitivity to Changes in Population Distribution

The impacts of changes in the population distribution on the variables age and race were estimated separately by fixing the demographic-specific arrest rates and total population size and the age or race distribution to 1970 levels while allowing the distribution of the population on the other factor to change to the observed 1984 levels. The impact of the change in the joint age/race distribution of the population on age and race was also examined. This resulted in three scenarios:

1) If only the age distribution of the general population had changed, the expected 1984 total arrest count would have been 95,026. The changing age distribution accounted for over 16 percent of the change in actual arrests.

TABLE 5
Population Size, Felony Arrest Counts, and Arrest Rates
Per 1,000 Male Population by Age and Race Group, 1970 vs.1984
New York State (Ages 16 and Over)

Group	1970 Arrests	1970 Population	1970 Rate	1984 Arrests	1984 Population	1984 Rate
16-19						
White	12,479	541,032	23.07	16,249	455,096	35.70
Non-White	10,008	86,056	116.30	15,579	108,976	142.96
20-24						
White	14,410	554,990	25.96	17,601	643,630	27.35
Non-White	11,564	84,210	137.32	16,732	141,610	118.16
25-29						
White	7,677	503,820	15.24	13,209	628,140	21.03
Non-White	7,474	85,010	87.92	11,980	121,890	98.29
30-34						
White	4,344	423,110	10.27	8,936	574,980	15.54
Non-White	4,656	78,520	59.30	8,005	111,830	71.58
35-39						
White	2,716	422,360	6.43	5,454	512,720	10.64
Non-White	3,229	71,120	45.40	4,746	97,690	48.58
40 & Over						
White	4,197	2,943,270	1.43	7,477	2,598,870	2.88
Non-White	5,002	293,330	17.05	5,886	383,590	15.39
16 & Over						
Total	87,756	6,086,828	14.42	131,854	6,379,022	20.67

TABLE 6

Demographic Factors Influence on the Change in Arrest Counts: 1970 vs. 1984 Calculating Formulas and Estimates

Factor Change	Formula	Estimated Count (1984)	Percent of Actual
SIZE	Sigma ij CNT(i,j,k)/POP(i,j,k) * POP(i,j,k)/TOTPOP(k) * TOTPOP(k+14)	91,969	9.6
AGE	Sigma i ACNT(i,k)/APOP(i,k) * APOP(i,k+14)/TOTPOP(k+14) * TOTPOP(k)	95,026	16.5
RACE	Sigma j RCNT(j,k)/RPOP(j,k) * RPOP(j,k+14)/TOTPOP(j,k+14) * TOTPOP(k)	99,258	26.1
JOINT DIST (Race/Age)	Sigma ij CNT(i,j,k)/POP(i,j,k) * POP(i,j,k+14)/TOTPOP(k+14) * TOTPOP(k)	105,085	39.3
JOINT DIST + SIZE	Sigma ij CNT(i,j,k)/POP(i,j,k) * POP(i,j,k+14)	110,130	50.7
RATES	Sigma ij CNT(i,j,k+14)/POP(i,j,k+14) * POP(i,j,k)	108,810	47.7

where Sigma ij = the summation of the results formed from the subgroups i and j

where i = age group : 16-19, 20-24, 25-29, 30-34, 35-39, 40 & over
j = racial group: White, Non-White
k = arrest year 1970
k+14 = arrest year 1984

where CNT(i,j,k) = arrests in year k (1970) for the male age/race group formed from i and j

POP(i,j,k) = New York State male population in year k (1970) for the age/race group formed from i and j

ACNT(i,k) = arrests in year k for male age group i

APOP(i,k) = New York State male population in year k for age group i

RCNT(j,k) = arrest in year k for males in race group j

RPOP(j,k) = New York State population in year k for males in race group j

TOTPOP(k) = Total New York State male population 16 years of age and over in year k

2) If only the racial distribution of the general population had been allowed to change to the proportions found in 1984, the expected arrest count would have been 99,258. This scenario accounted for 26 percent of the observed change in arrests between 1970 and 1984.

3) Changing the joint age/race distribution of the population to the observed distribution of 1984 results in an expected arrest count of 105,085. This change in the joint distribution accounts for 39 percent of the observed differences between the 1970 and 1984 arrest levels.

In each of these three scenarios the aggregate population size was fixed at the level found in 1970. Only the distribution along the race or age dimension was allowed to change. If changes in population size were accounted for in addition to the change in the age/race distribution, 110,130 arrests would have been expected, representing 51 percent of the observed change in arrests.

Sensitivity to Changes in Demographic-Specific Arrest Rates

A fifth scenario estimated the impact of changes in demographic-specific (age/race) arrest rates on the total arrests by fixing the total population size and the age and race population distribution to 1970 levels. The demographic-specific arrest rates were allowed to reflect the rates present in 1984. Under this scenario the expected number of arrests in 1984 would have been 108,810. Such change in rates accounts for almost 48 percent of the observed differences in arrest levels. This factor had the largest single effect on the observed change in arrest counts.

Average Demographic Effects and Regional Differences

The above analysis was restricted to just two points in time, 1970 and 1984. The same type of analysis was repeated for each of the 14 consecutive year-pairs (e.g. 1970-1971, 1971-1972), after which average expected counts were computed. These results are summarized in Table 7 which shows the average percent of the change in counts across year-pairs that can be attributed to each of the five factors. These percents are not very different from the results found in the 1970-1984 comparison.

Table 7 also displays the results of a regional analysis. The effects of the demographic factors differ by region - especially for New York City. In New York City the impact of population size was negative. The change in this factor would have predicted declines in arrests when in fact arrests were, on average, increasing during the period. The change in the race distribution and the demographic-specific arrest rates were the strongest factors on the observed changes in arrest counts. Almost 70 percent of the change in New York City's arrest counts may be attributed to changes in arrest rates. For the other two regions of the State changes in arrest rates are most important, but the impact of changes in population size and to a lesser extent the race distribution are also large.

TABLE 7
Average Influence of Demographic Factors on the Yearly Change in Arrest Counts 1970-1984 by Region

	Average Percent*					
Region	Size	Age	Race	Joint Dist. Age/Race	Joint Dist. Age/Race+Size	Rates
New York City	-21.3	18.3	40.0	51.4	29.9	69.8
Suburban NYC	25.8	6.3	21.3	25.8	51.9	46.7
Upstate New York	19.9	2.1	11.0	12.0	32.1	66.3
New York State	11.2	12.1	25.8	34.5	45.9	53.4

* These effects are not additive given that the formulas used to estimate them are multiplicative.

It should be remembered that the standardization process that was used results in hypothetical counts. If the particular scenario had taken place, then the standardized estimates might have resulted. Of course the size and makeup of the New York State population did change, as did the rates. Because of this, a certain amount of caution should be exercised when interpreting the results.[6] In addition, the lack of statistical independence among the variables makes the interpretation of the results difficult. For example, the age distributions are different for Whites and non-Whites; therefore, it is likely that changes the race distribution would be accompanied by changes in the age distribution.

SUMMARY OF FINDINGS

This report describes the patterns of change in adult male felony arrests in New York State over the years 1970-1984 within region, race, age and crime type groupings. Each region exhibited its own distinct pattern of change, as did the race, age, and crime type series examined. During the period studied there were major changes in trends both for arrest counts and arrest rates (per 100,000 population). While some of the changes in trends could be attributed to legislative changes in the Penal Law or changes in the demographic composition of the State, other changes could not be attributed to any particular circumstances. For example the factors that caused age- and race-specific arrest rates to change over the period are not identified in this report, and must await further research.

Average arrest rates differed dramatically among demographic subgroups. New York City's average felony arrest rate was three times that of the other two regions. The arrest rate of 16-19 year olds was 1.3 times that of the 20-24 year olds (who had the next highest arrest rates) and almost 15 times that of those persons 40 years and older. The non-White arrest rate was 5.5 times that of the White population over the last 15 years, and this finding was both pervasive (across ages, regions, and crime types) and persistent. While the non-White to White arrest ratio declined somewhat over the time period, the differences remain large. It is beyond the scope of this report to address explanations for this difference, but areas that warrant exploration include discrimination by the criminal justice system, unemployment, poverty, and the social and physical environment in which non-White New Yorkers live. Whatever the reasons for these differences by region, age, and race the magnitude and persistence of these differences make it essential that they be taken into account in any attempt to model criminal justice system operation or forecast system workload.

Despite the findings that patterns of change and the magnitude of arrest rates varied by demographic group and type of crime, a degree of regularity was observed when yearly arrest rates were standardized. The 18 arrest rate series formed from the variables of region, age, and race all displayed yearly rates that fluctuated moderately about their individual means but did not show any strong trends. No specific demographic group clearly appeared to be more stable than others.

This stability in rates was not evident when arrest rates were computed separately for events in which offenders had previous felony convictions at the time of the arrest. These series showed the arrest rates rising substantially over the 15 year period. This upward trend was most evident among 16-19 year olds. Alternative explanations for this upward trend were offered including the possibility that it simply reflects an increasing pool of "at risk" candidates. Future research efforts will be directed at this issue.

Since the arrest rates were found to vary by region, race, and age and the population of New York State had undergone changes both in the size and more importantly in the composition of the population along these same dimensions, an effort was made to discover how these changes related to changes in the arrest counts between 1970 and 1984. For New York State as a whole, change in the age- and race-specific arrest rates had the largest effect on the change in counts.

Change in the race distribution was next most significant followed by change in the age distribution. Change in the aggregate population size was the least significant factor. The relative importance of factors was also found to vary depending on which region of the State was being considered. In New York City, where the 16 and older population actually declined, the change in aggregate population size was unable to explain any of the observed growth in arrests. For the other two regions of the State, change in aggregate population size was the second most important factor in explaining the growth in arrest rates. While these findings give some credence to the utility of the demographic hypothesis for explaining some of the changes in aggregate data, a more rigorous treatment of the subject is required. One question that should be studied is why demographic-specific arrest rates changed during the period under study.

ENDNOTES

1. For good summaries of these legislative efforts, see the practice commentaries for the Penal Law by Arnold Hechtmen in McKinney's Consolidated Laws of New York State.

2. See Sagi, Philip C. and Charles F. Wellford 1968. "Age Composition in Patterns of Change in Criminal Statistics." Journal of Criminal Law, Criminology and Police Science 59:29 and Blumstein, Alfred, Jacqueline Cohen, and Harold D. Miller 1978. Demographically Disaggregated Projections of Prison Populations p. 21.

3. For more information on this technique see Block, Carolyn R. and Louise S. Miller 1982. Manual for the Pattern Description of Time Series, Part 1: Guide to Pattern Description and the bibliography contained therein.

4. The model of growth is a linear one in which the series grows a constant absolute number for a given time period. This absolute number has been expressed as a percentage of the starting value of the line segment. It should not be confused with a multiplicative model of growth in which the series grows a constant percentage that compounds across time periods.

5. For a complete list of violent felony offenses see New York State Penal Law Section 70.02. The major crimes include: murder, rape, robbery, aggravated assault, and certain burglaries. Murder is not included in the legislation since severe sentencing options already exist for this crime. For purposes of this report, it is treated as a violent felony offense.

6. For further deatails on standardization procedures see Mueller, John H., Karl F. Schuessler and Herbert L. Costner 1970. Statistical Reasoning in Sociology, 2nd Edition. Pp. 180-206.

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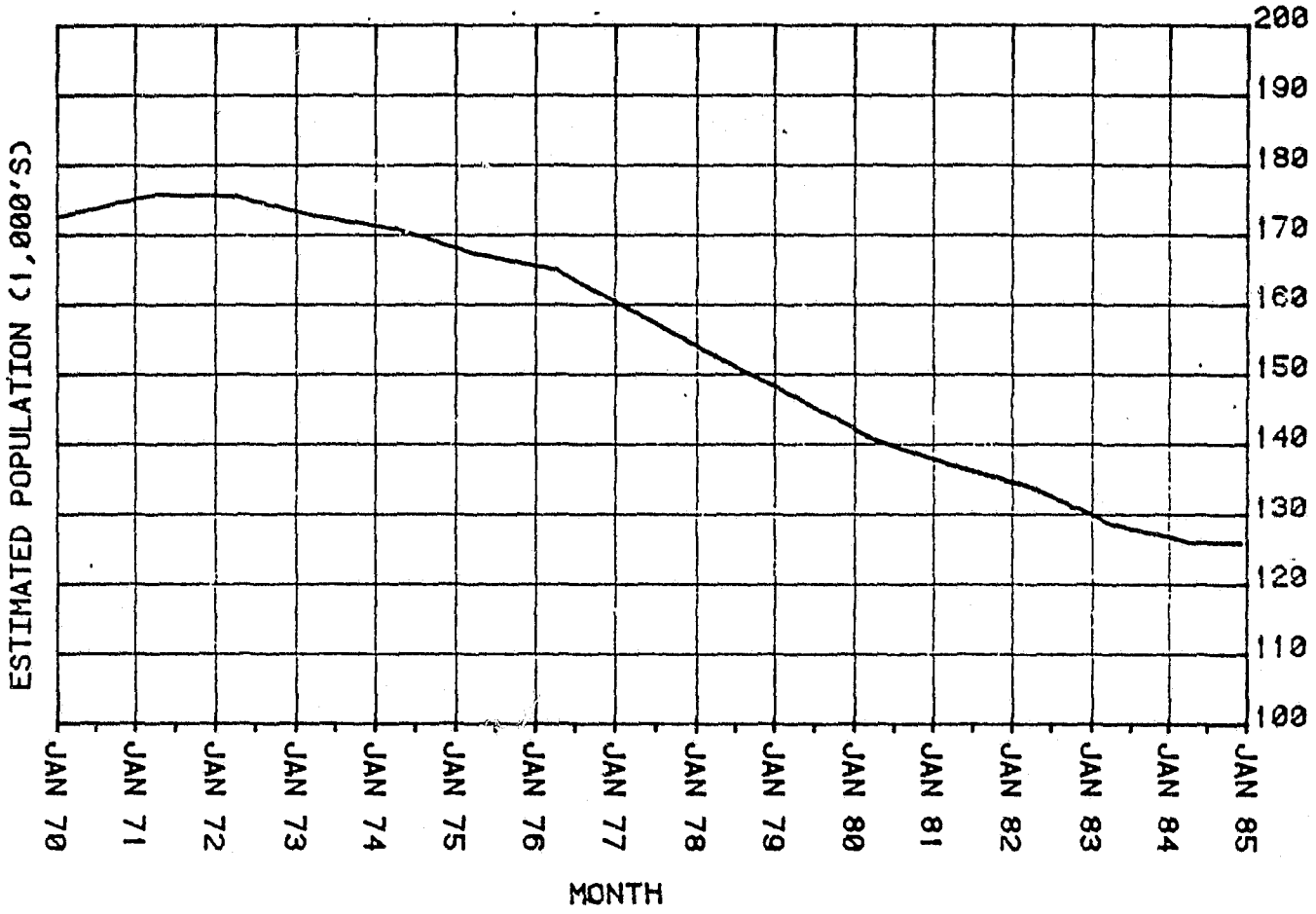
APPENDIX A

Estimated Male Population by Region, Race, and Age

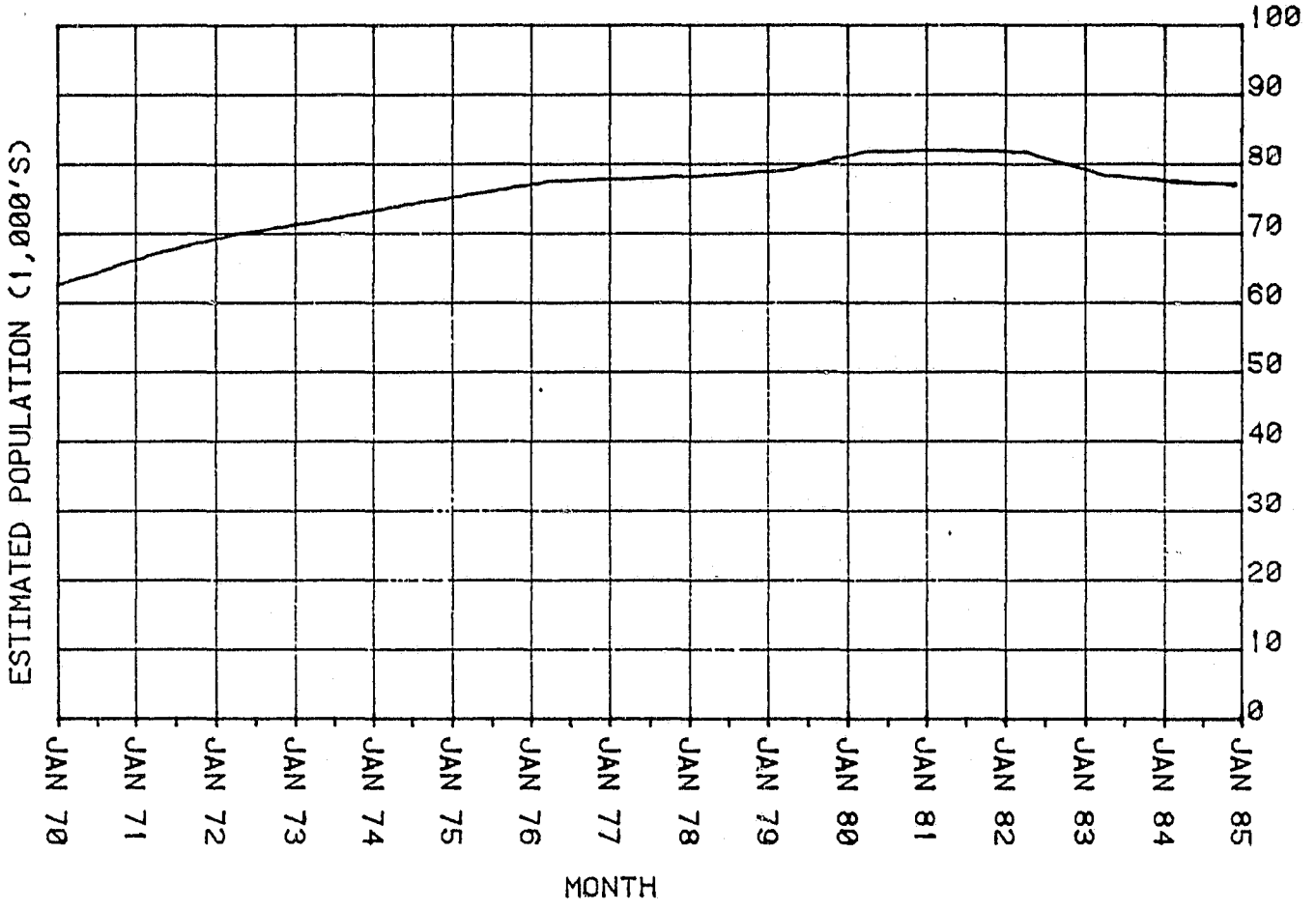
ESTIMATED POPULATION, WHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = -0.33
Y ZERO INTERCEPT = 184.44

PCT SS EXPLAINED = 96.09

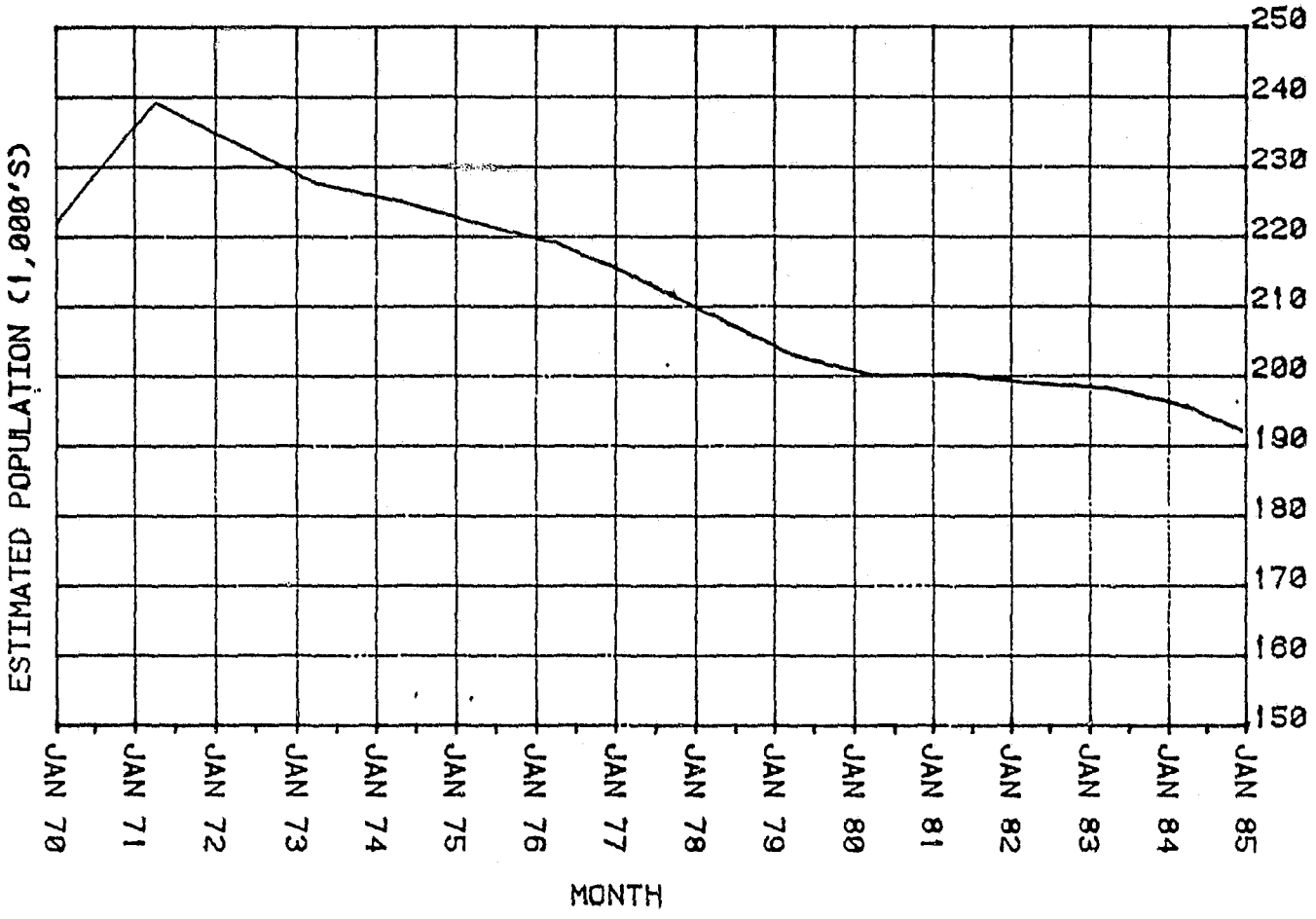
ESTIMATED POPULATION, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.14
Y ZERO INTERCEPT =	65.67
SECOND SLOPE =	-0.13
Y ZERO INTERCEPT =	99.26

FIRST TURNING POINT X: 8/80
Y: 83.04
PCT SS EXPLAINED = 95.76

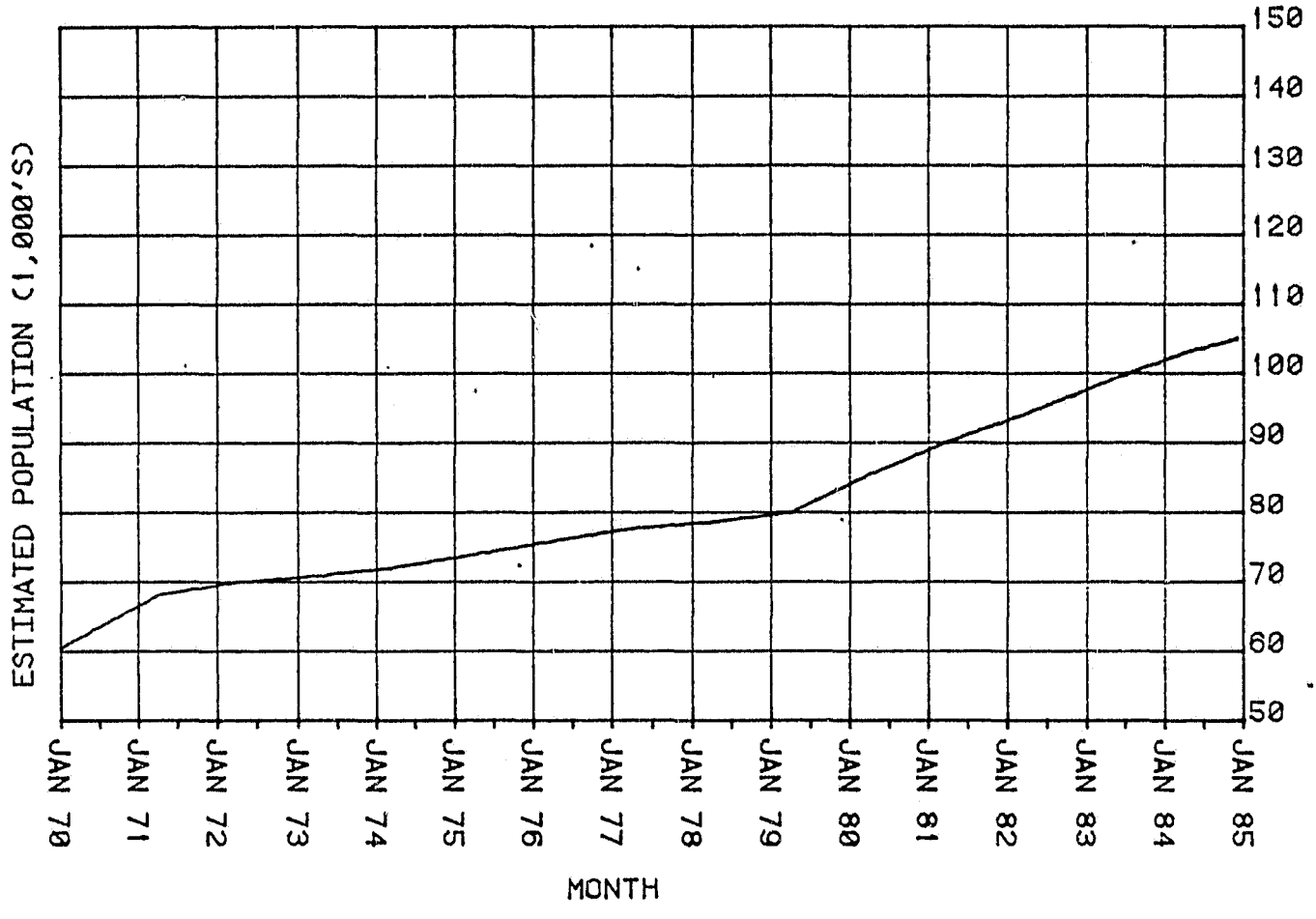
ESTIMATED POPULATION, WHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = -0.26
Y ZERO INTERCEPT = 236.96

PCT SS EXPLAINED = 93.58

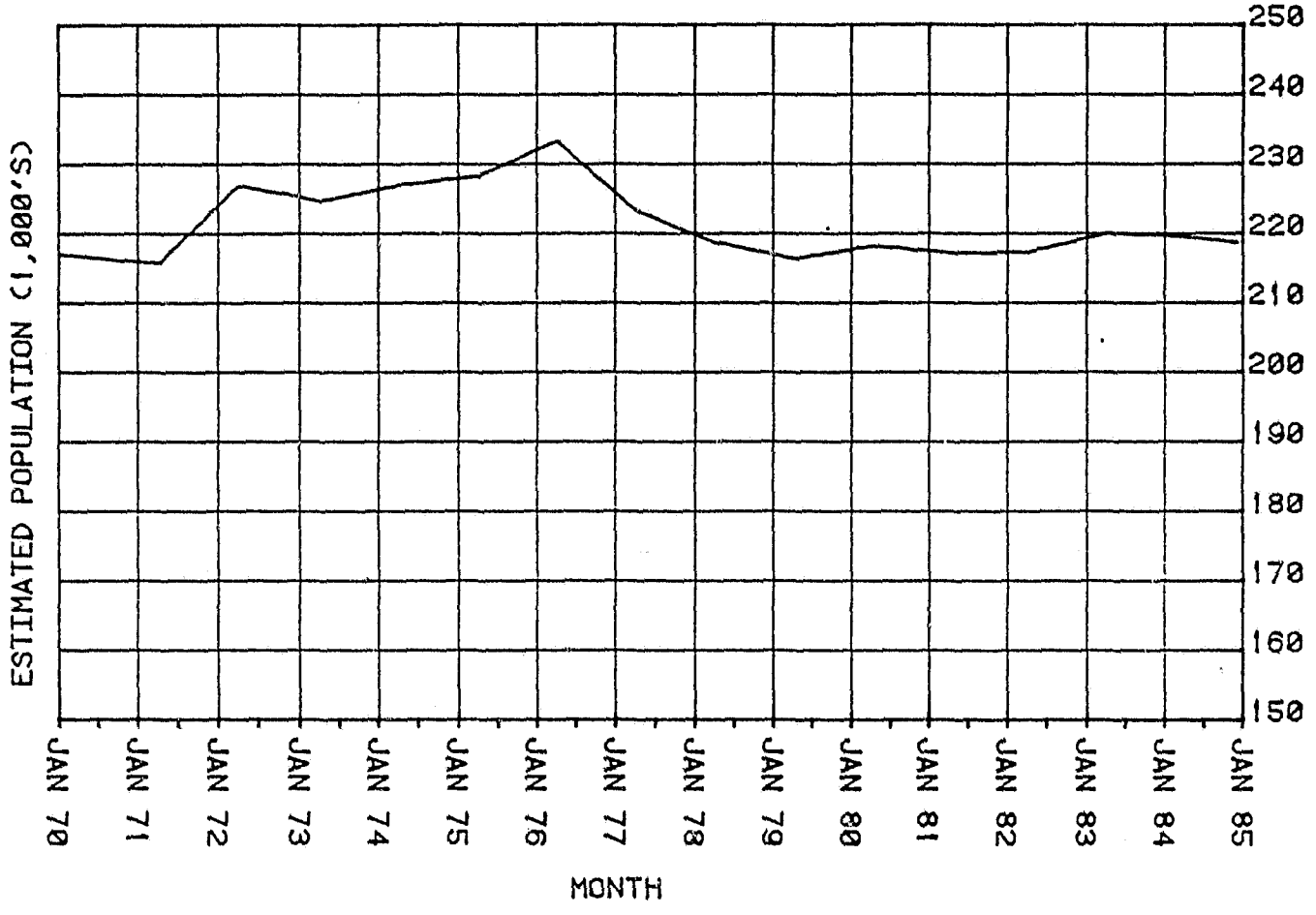
ESTIMATED POPULATION, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.22
Y ZERO INTERCEPT = 60.98

PCT SS EXPLAINED = 94.39

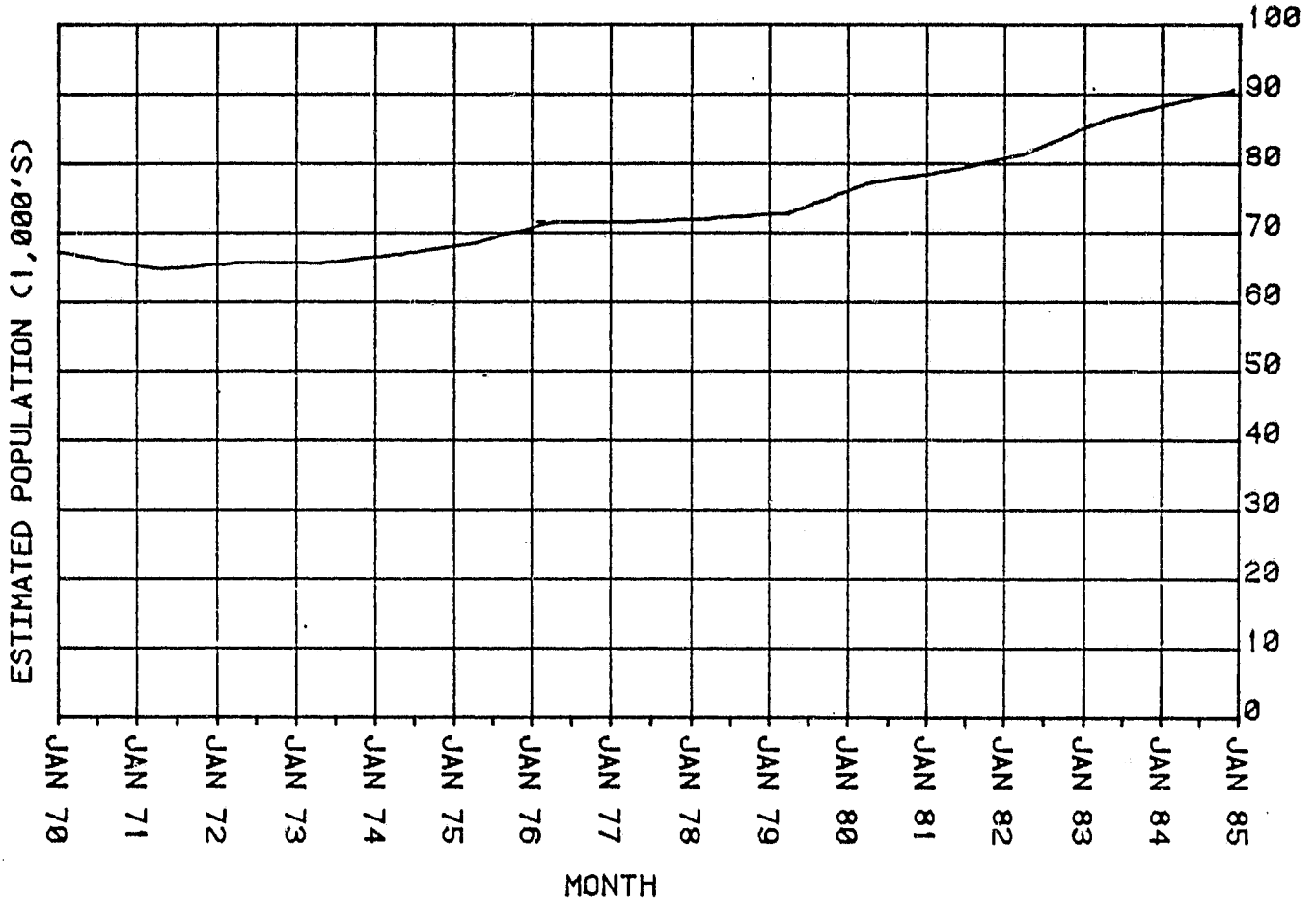
ESTIMATED POPULATION, WHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.22
Y ZERO INTERCEPT =	215.97
SECOND SLOPE =	-0.60
Y ZERO INTERCEPT =	277.47
THIRD SLOPE =	0.04
Y ZERO INTERCEPT =	213.15

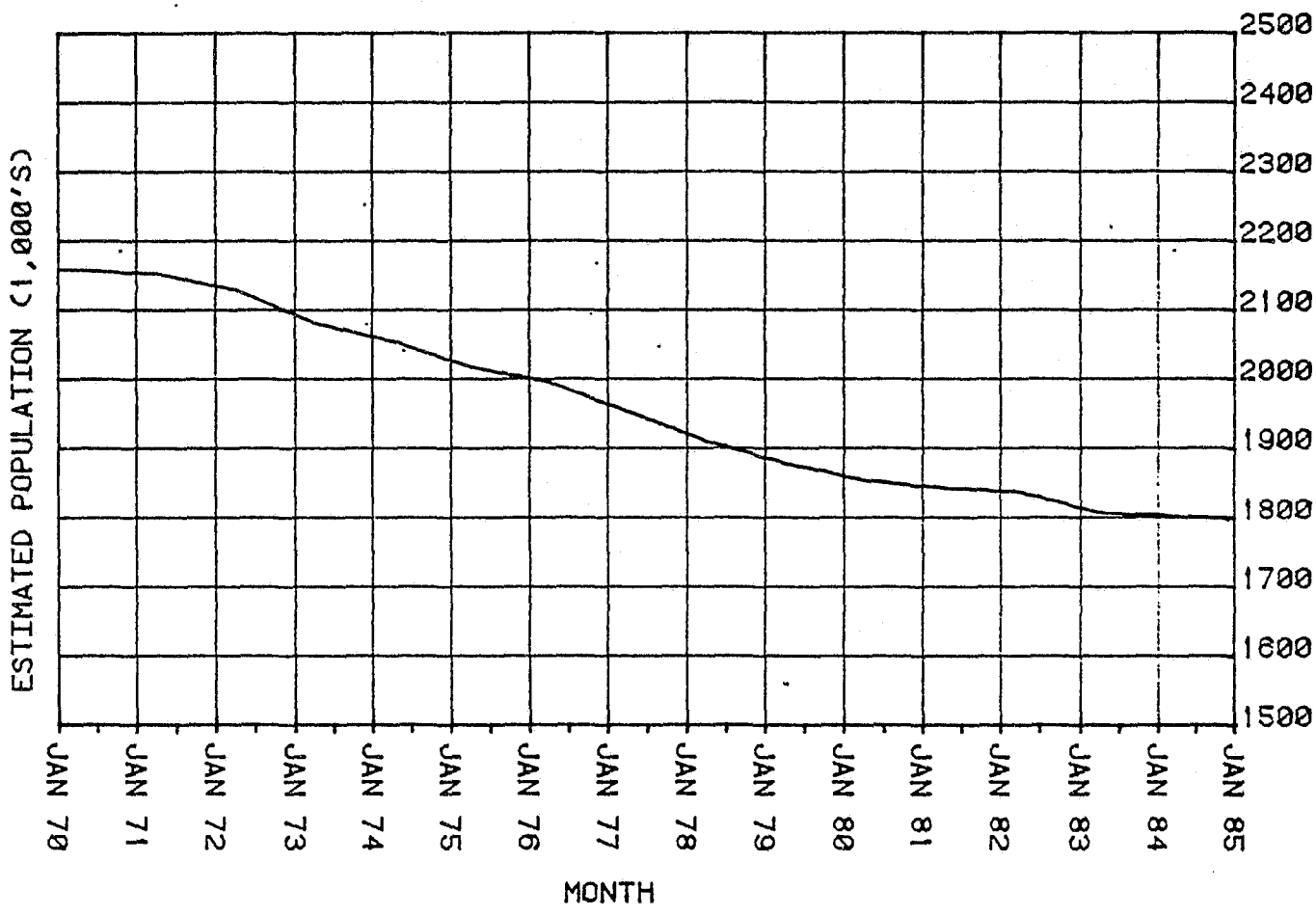
FIRST TURNING POINT X:	3/76
Y:	232.32
SECOND TURNING POINT X:	5/78
Y:	216.77
PCT SS EXPLAINED =	92.68

ESTIMATED POPULATION, NONWHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.14
Y ZERO INTERCEPT = 60.91
PCT SS EXPLAINED = 90.97.

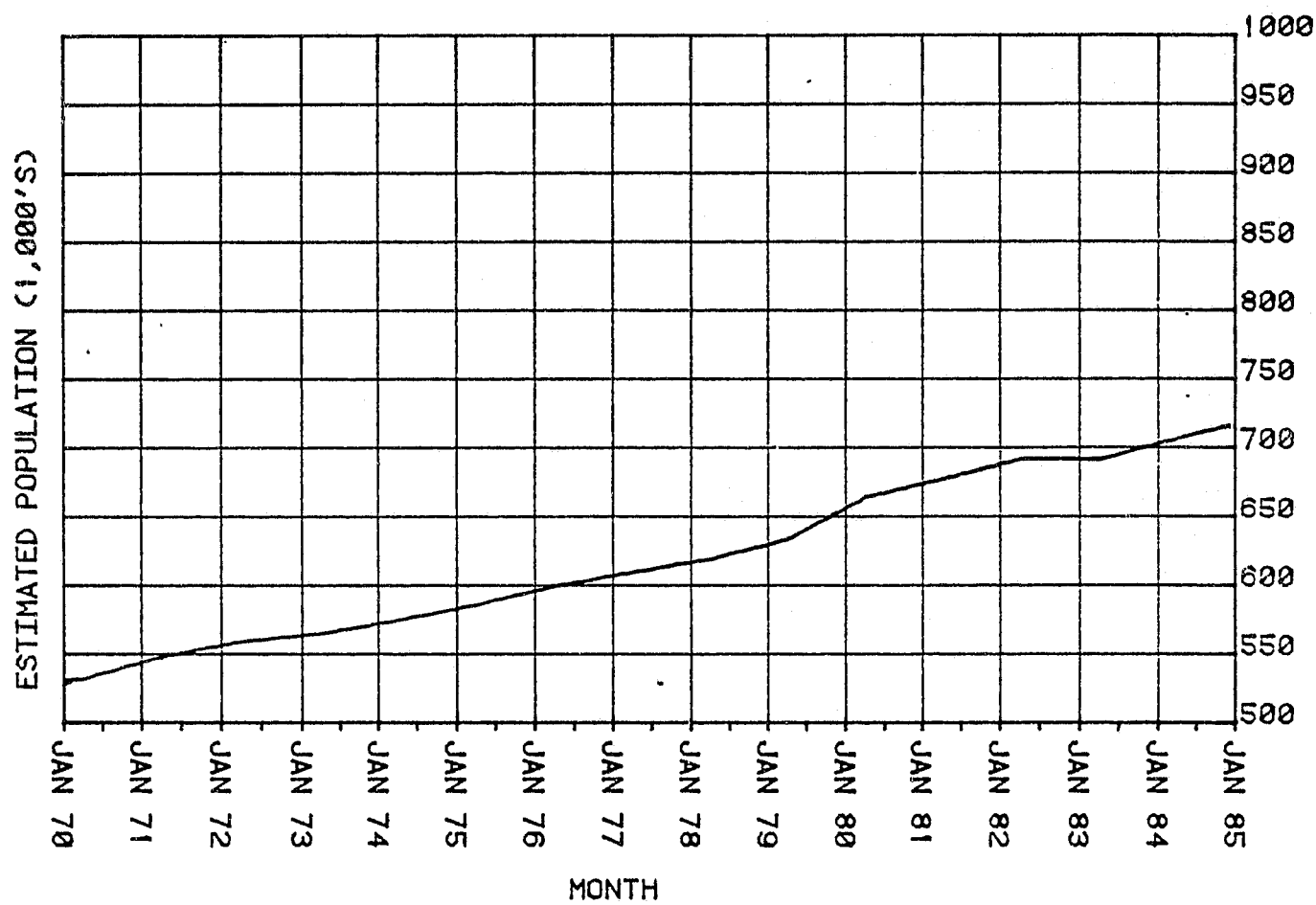
ESTIMATED POPULATION, WHITE MALES, AGES 16 AND OVER
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = -2.34
Y ZERO INTERCEPT = 2171.36

PCT SS EXPLAINED = 97.69

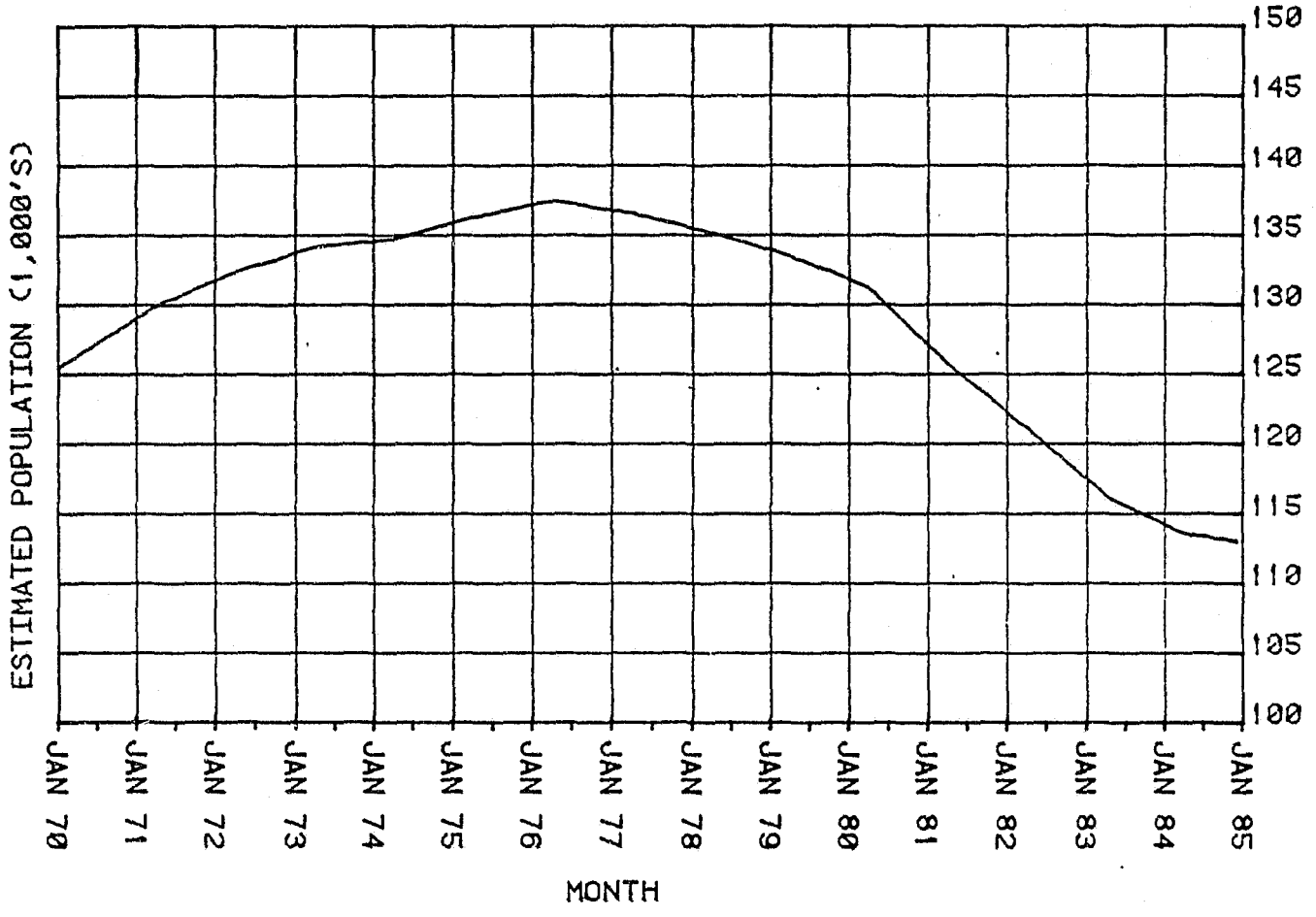
ESTIMATED POPULATION, NONWHITE MALES, AGES 16 AND OVER
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 1.07
Y ZERO INTERCEPT = 523.45

PCT SS EXPLAINED = 98.70

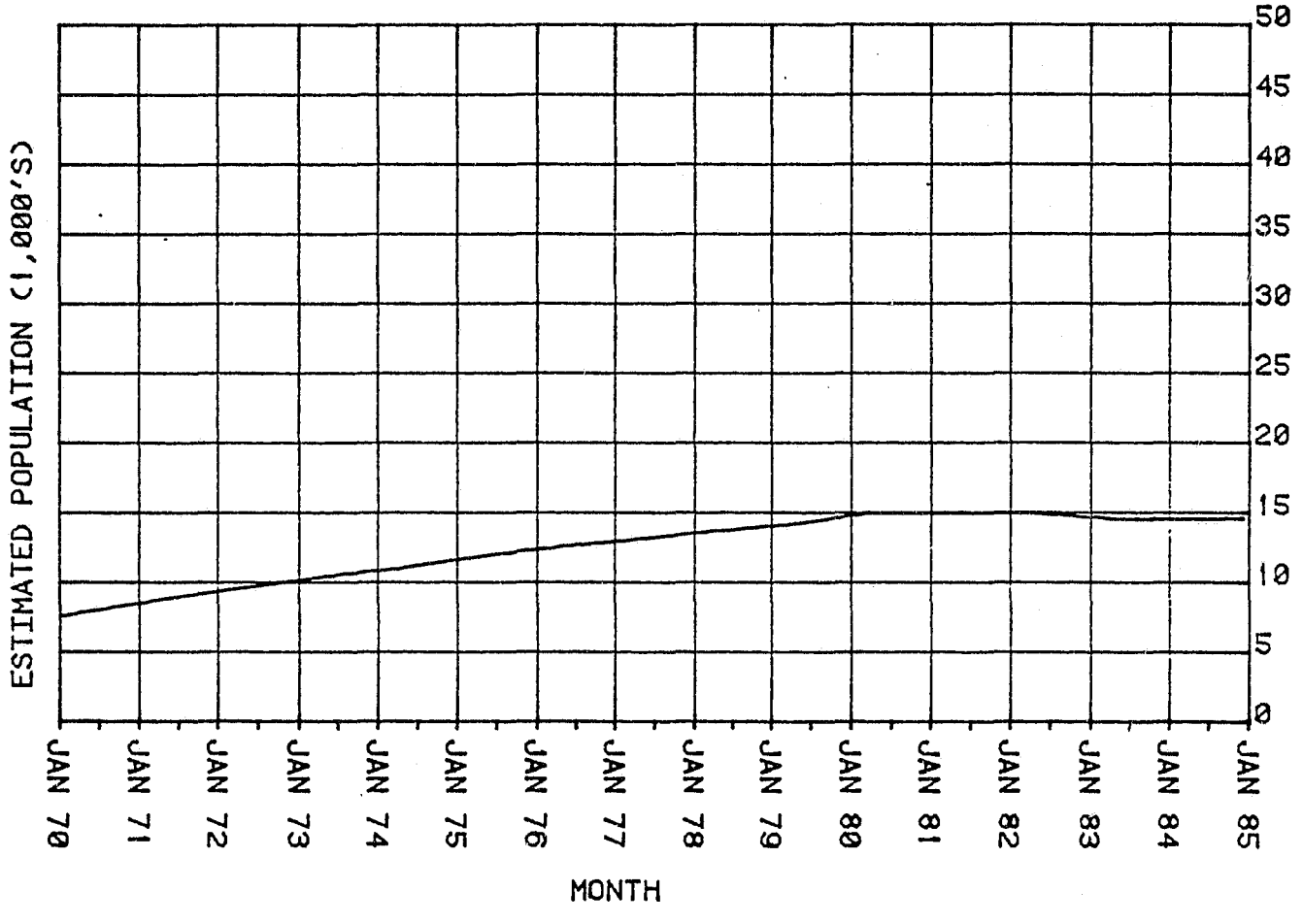
ESTIMATED POPULATION, WHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.12
Y ZERO INTERCEPT =	128.08
SECOND SLOPE =	-0.31
Y ZERO INTERCEPT =	167.49

FIRST TURNING POINT X: 7/77
Y: 139.03
PCT SS EXPLAINED = 97.51

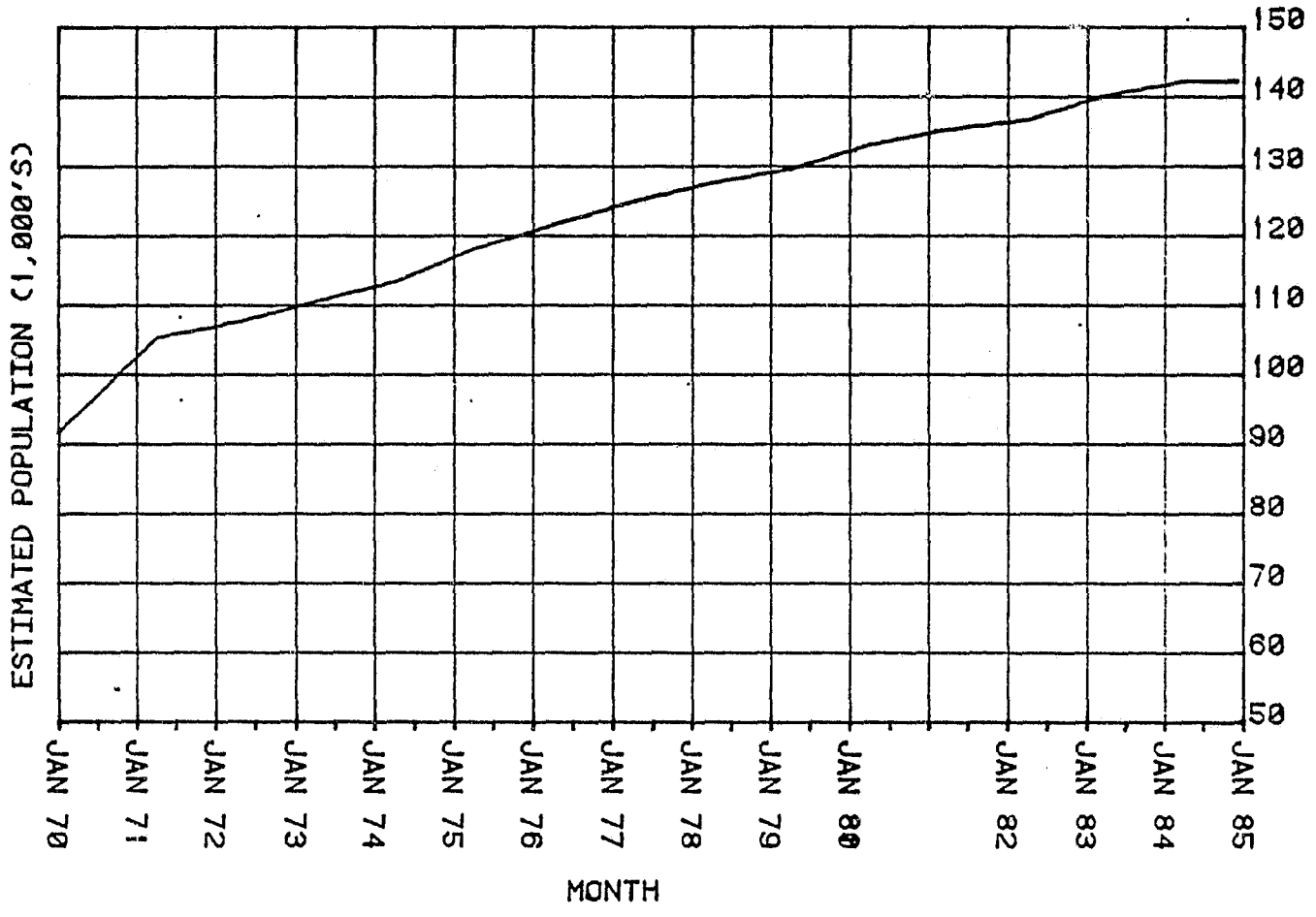
ESTIMATED POPULATION, NONWHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.06
Y ZERO INTERCEPT =	7.93
SECOND SLOPE =	-0.01
Y ZERO INTERCEPT =	16.61

FIRST TURNING POINT X: 3/80
Y: 15.14
PCT SS EXPLAINED = 99.63

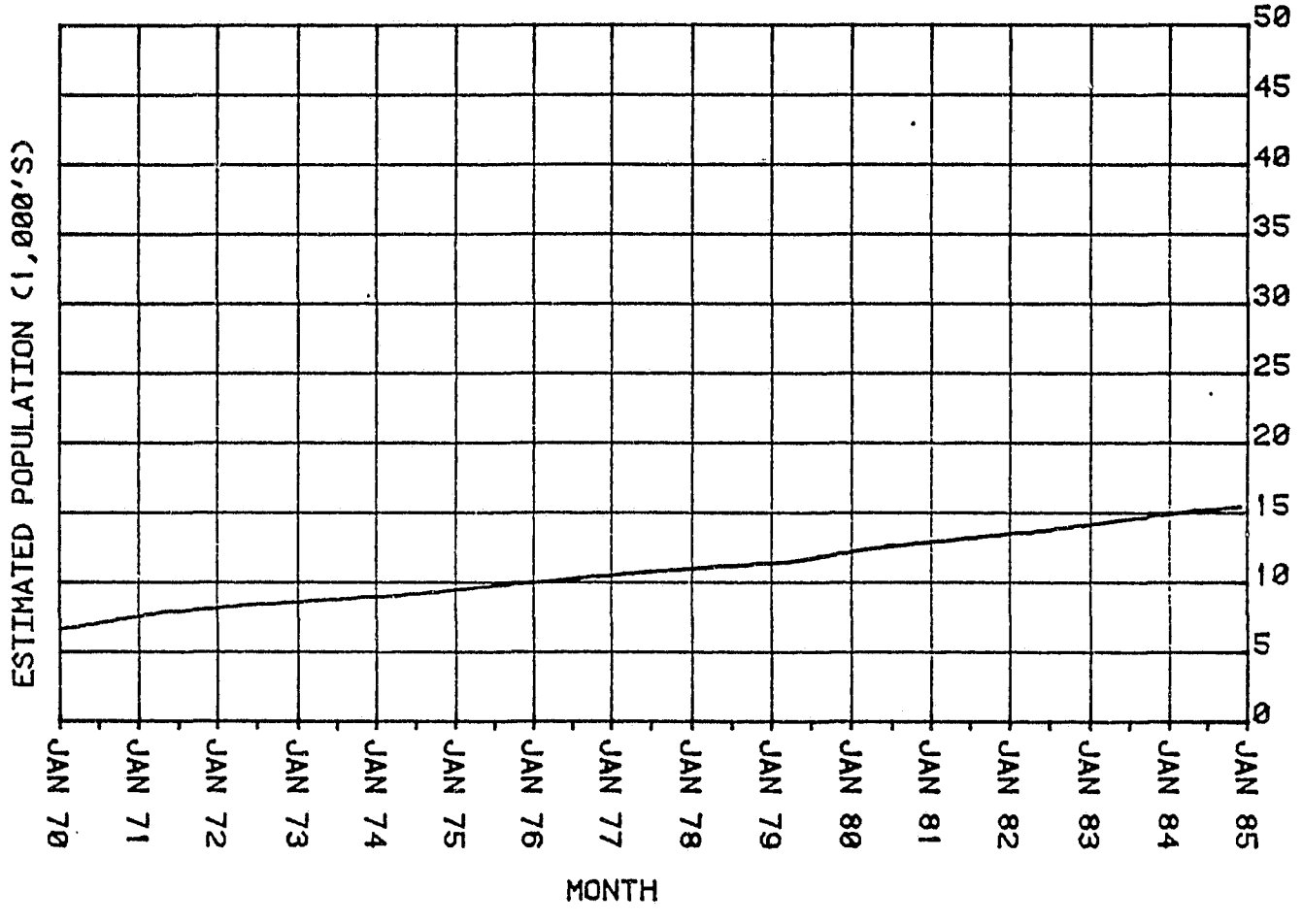
ESTIMATED POPULATION, WHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.26
Y ZERO INTERCEPT = 100.27

PCT SS EXPLAINED = 97.79

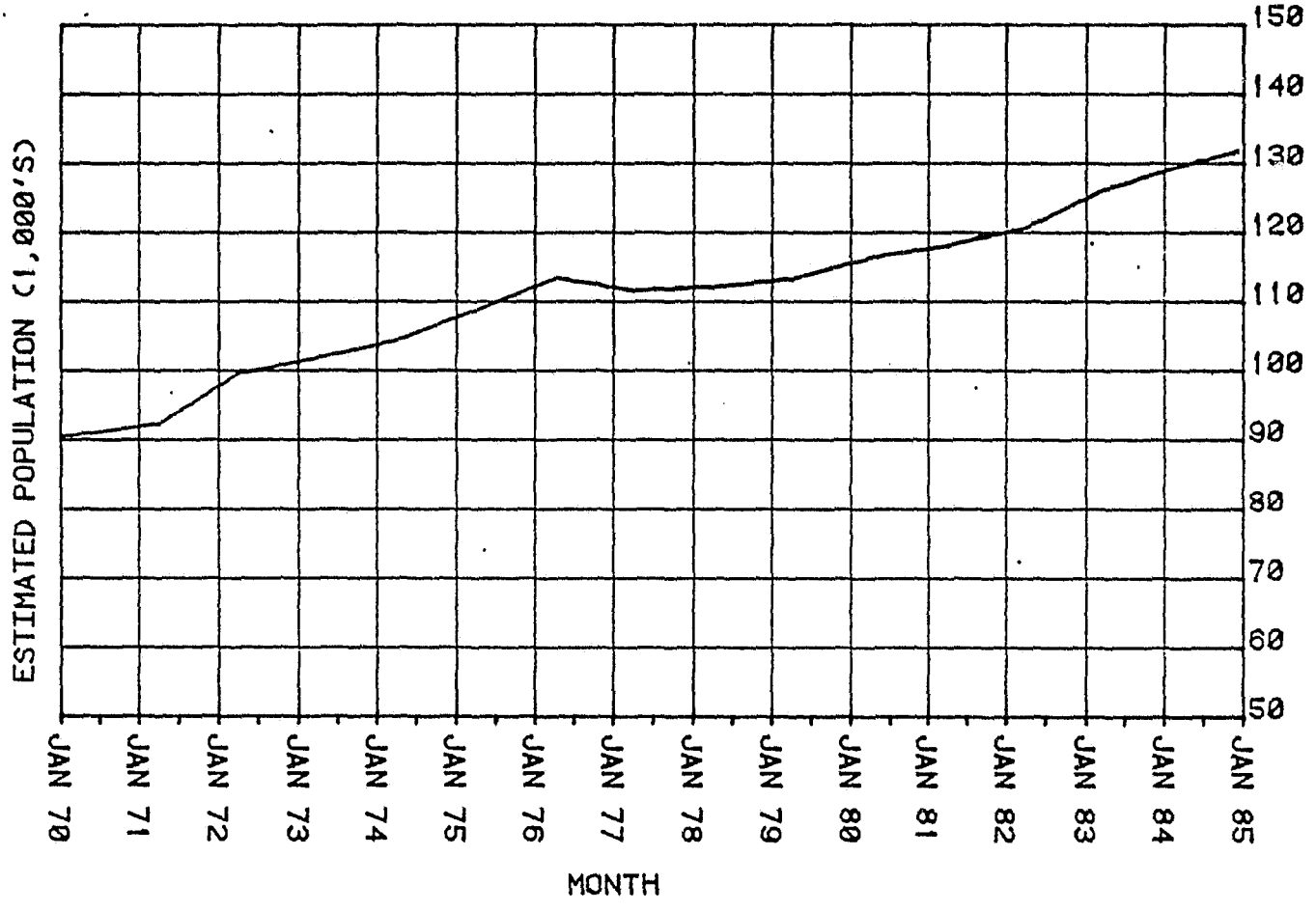
ESTIMATED POPULATION, NONWHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.05
Y ZERO INTERCEPT = 6.76

PCT SS EXPLAINED = 99.24

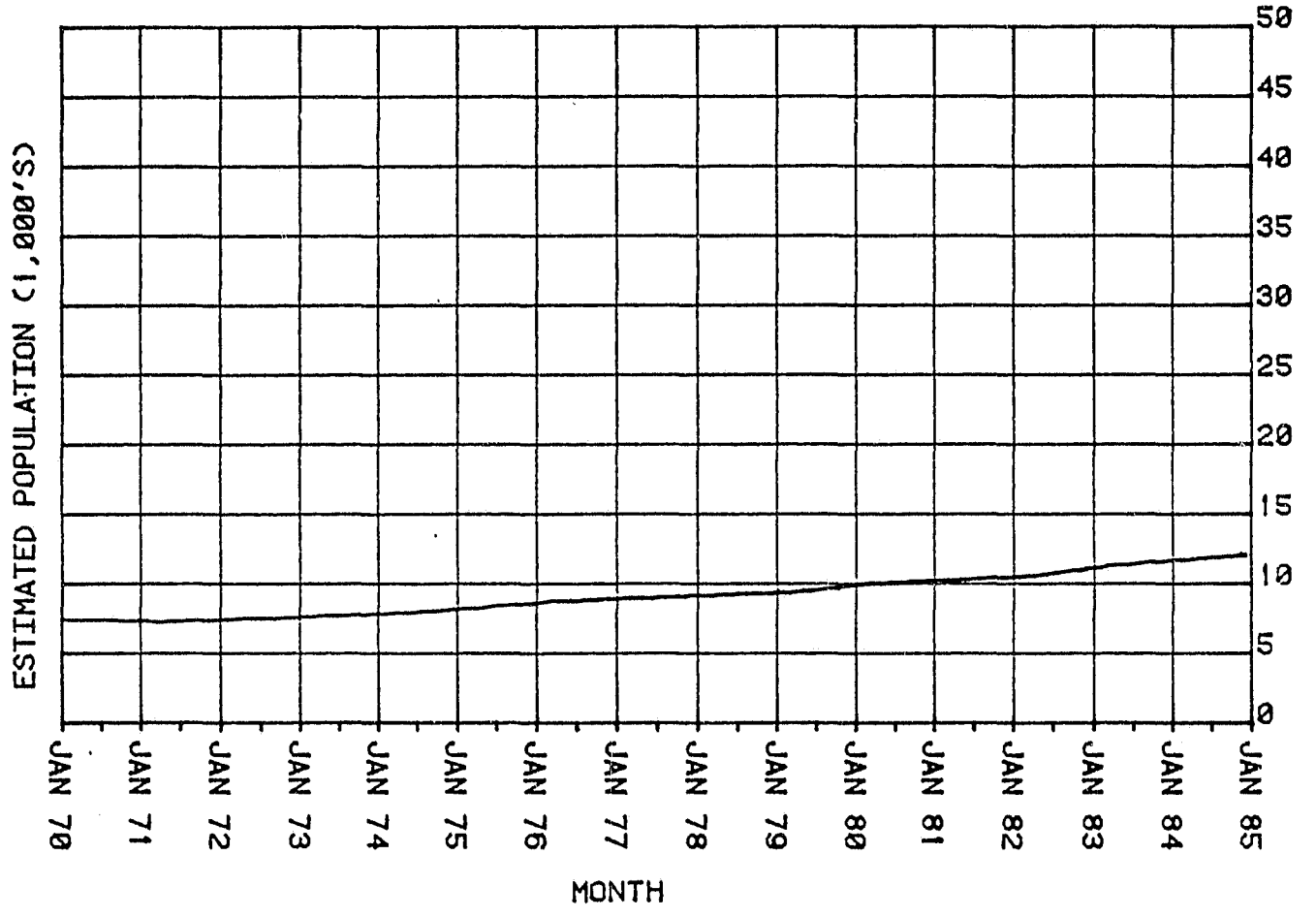
ESTIMATED POPULATION, WHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.21
Y ZERO INTERCEPT = 92.66

PCT SS EXPLAINED = 95.94

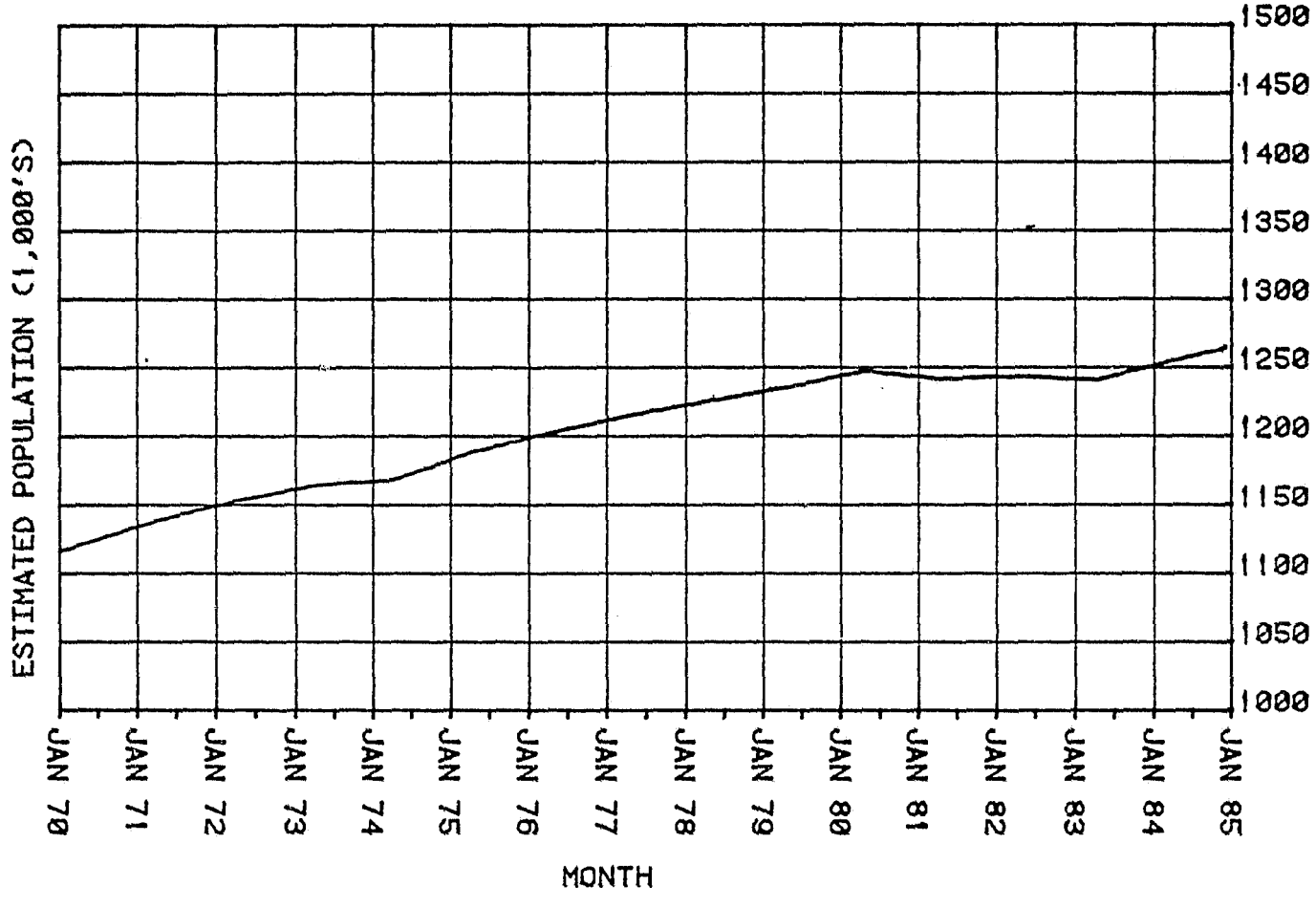
ESTIMATED POPULATION, NONWHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.03
Y ZERO INTERCEPT = 6.70

PCT SS EXPLAINED = 97.50

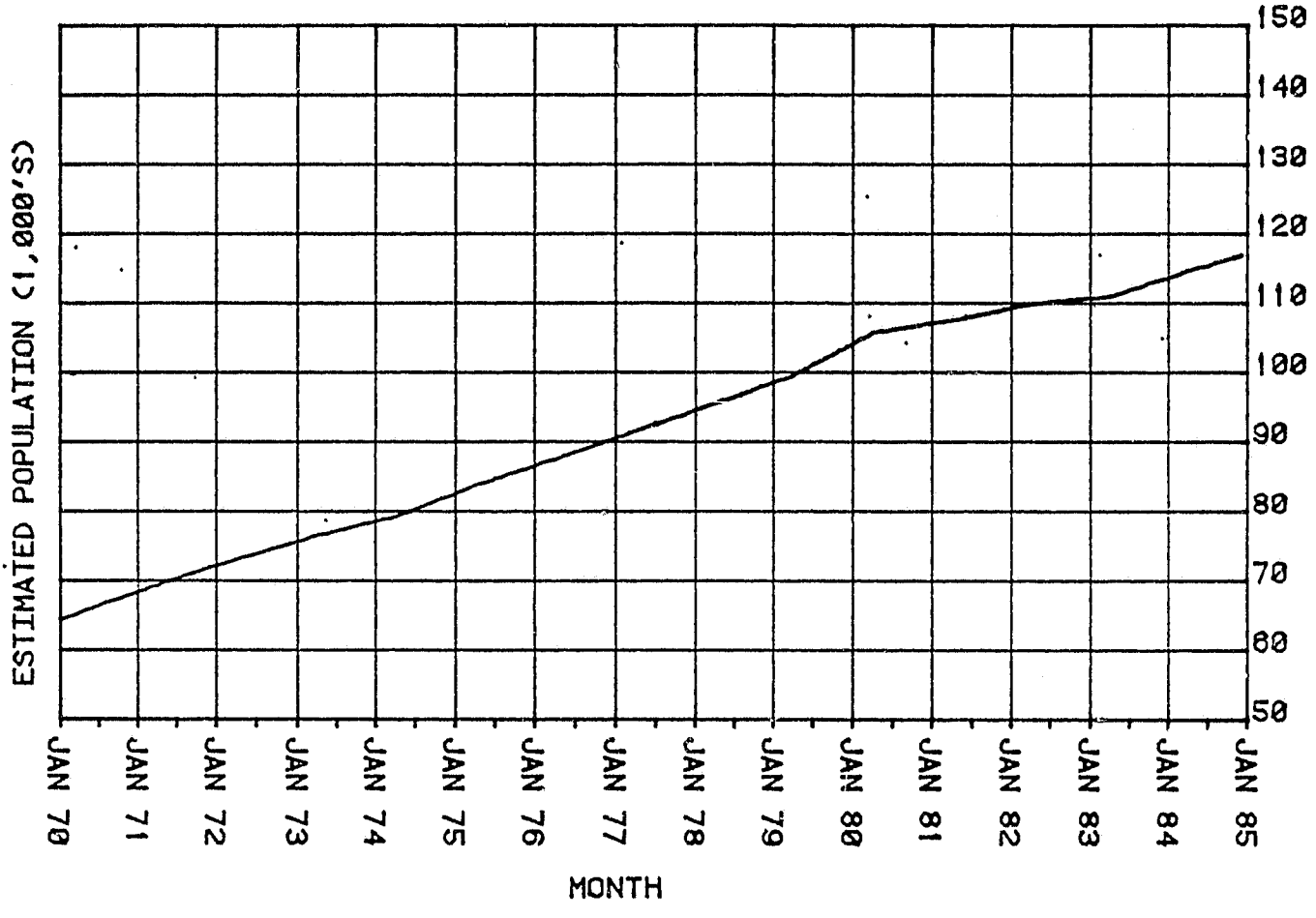
ESTIMATED POPULATION, WHITE MALES, AGES 16 AND OVER
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.78
Y ZERO INTERCEPT = 1134.09

PCT SS EXPLAINED = 93.79

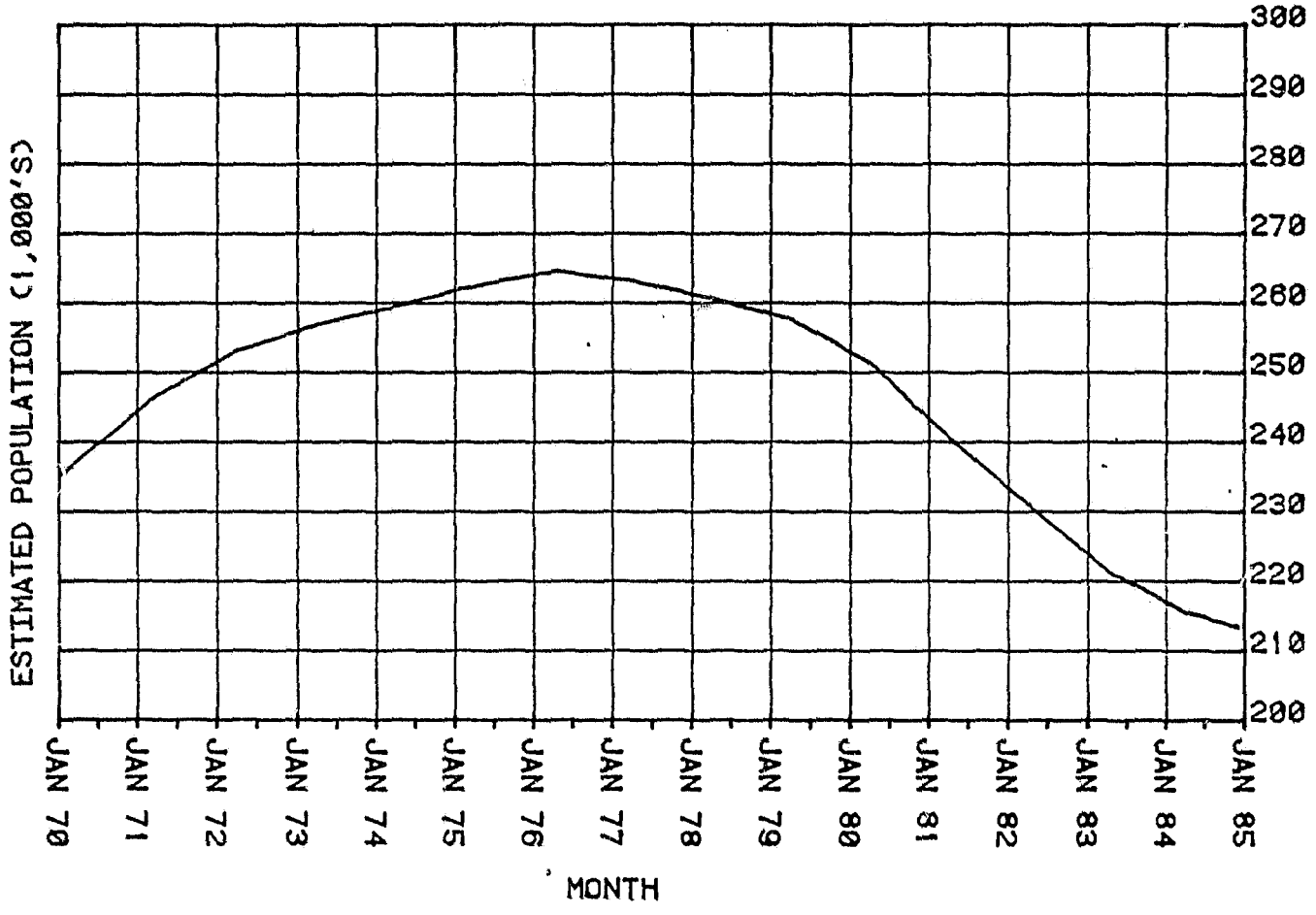
ESTIMATED POPULATION, NONWHITE MALES, AGES 16 AND OVER
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.30
Y ZERO INTERCEPT = 64.78

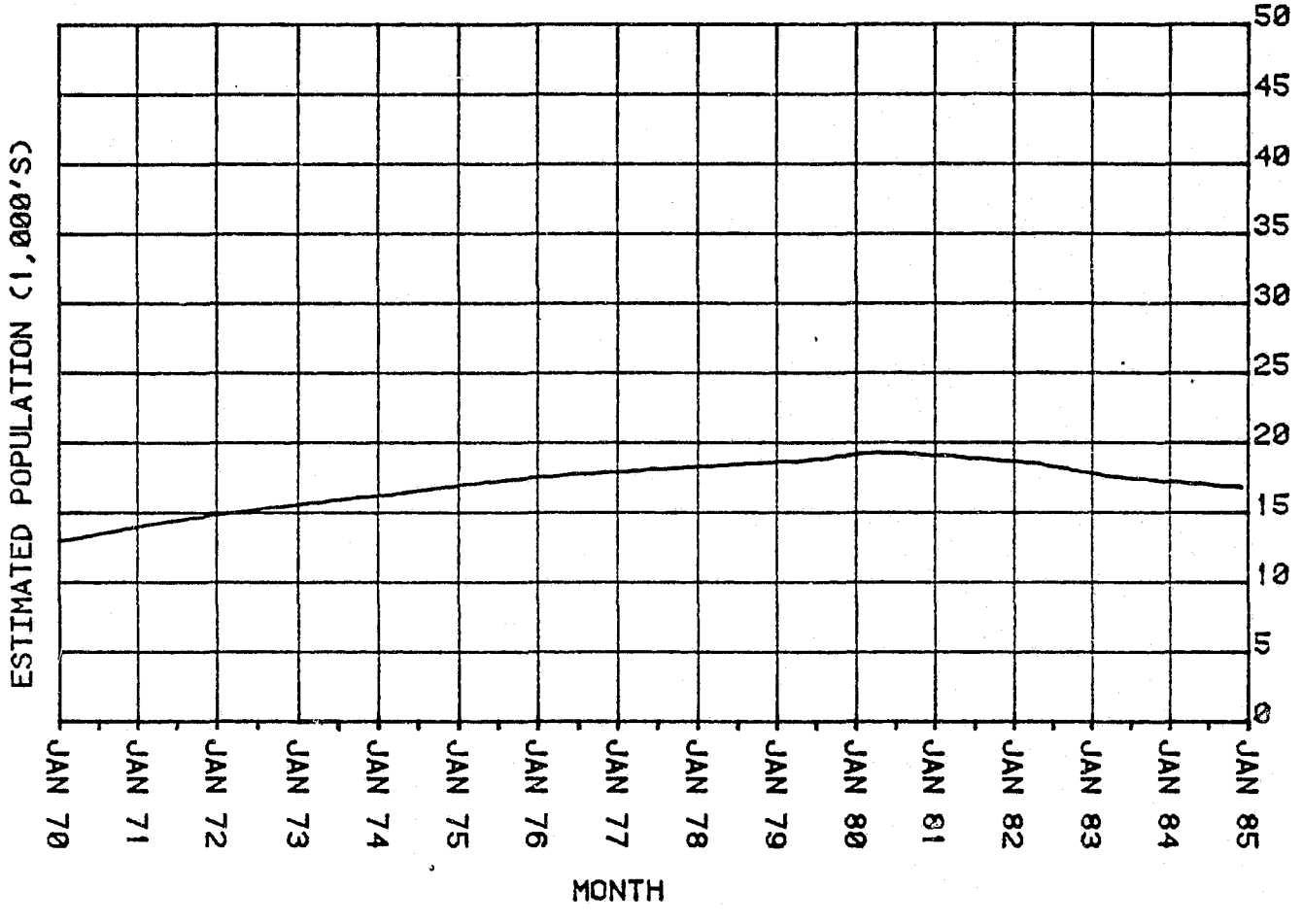
PCT SS EXPLAINED = 99.33

ESTIMATED POPULATION, WHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.31	FIRST TURNING POINT X:	5/77
Y ZERO INTERCEPT =	241.87	Y:	269.24
SECOND SLOPE =	-0.64	PCT SS EXPLAINED =	97.10
Y ZERO INTERCEPT =	326.50		

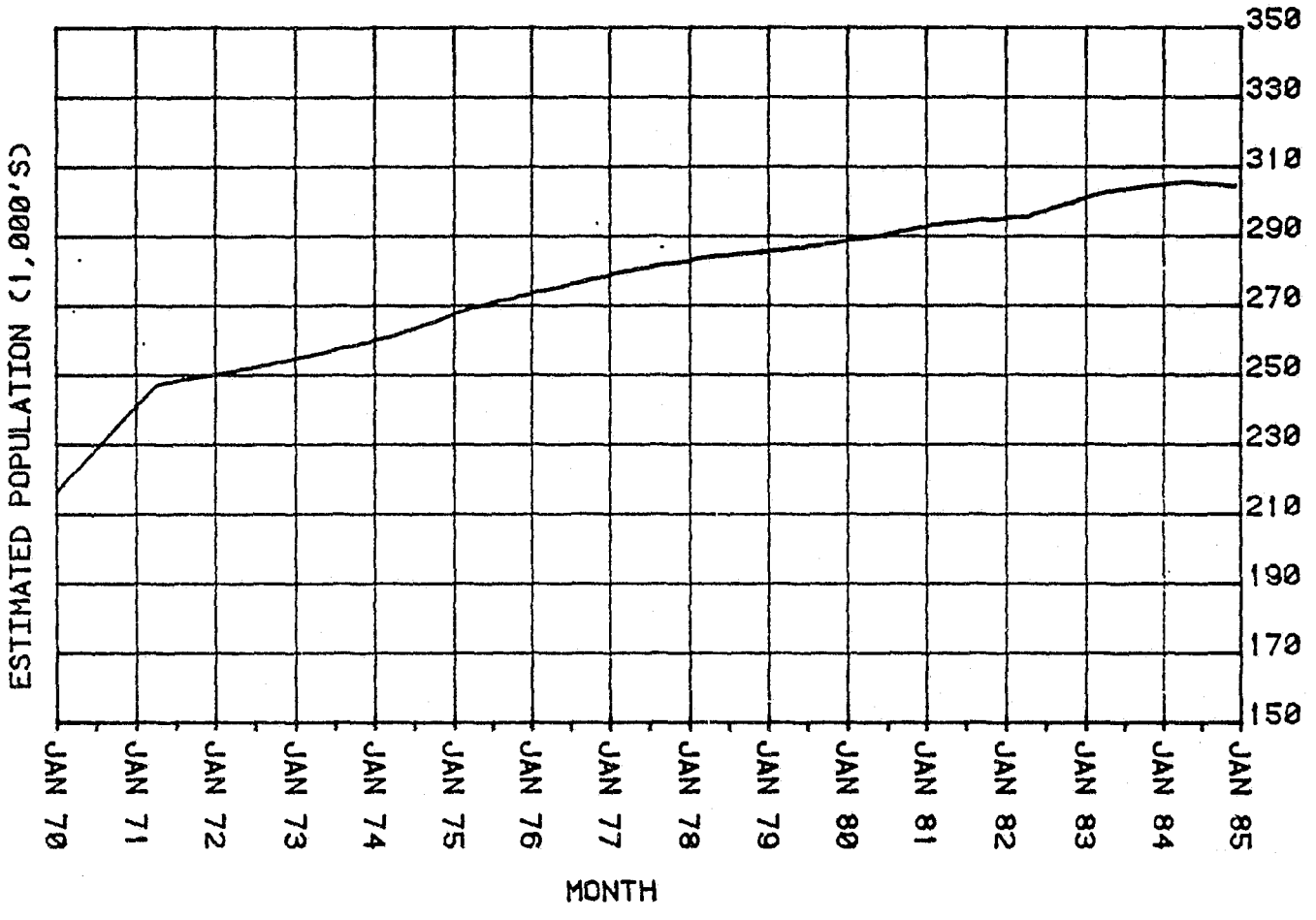
ESTIMATED POPULATION, NONWHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.05
Y ZERO INTERCEPT =	13.63
SECOND SLOPE =	-0.05
Y ZERO INTERCEPT =	25.53

FIRST TURNING POINT X: 1/80
Y: 19.59
PCT SS EXPLAINED = 97.79

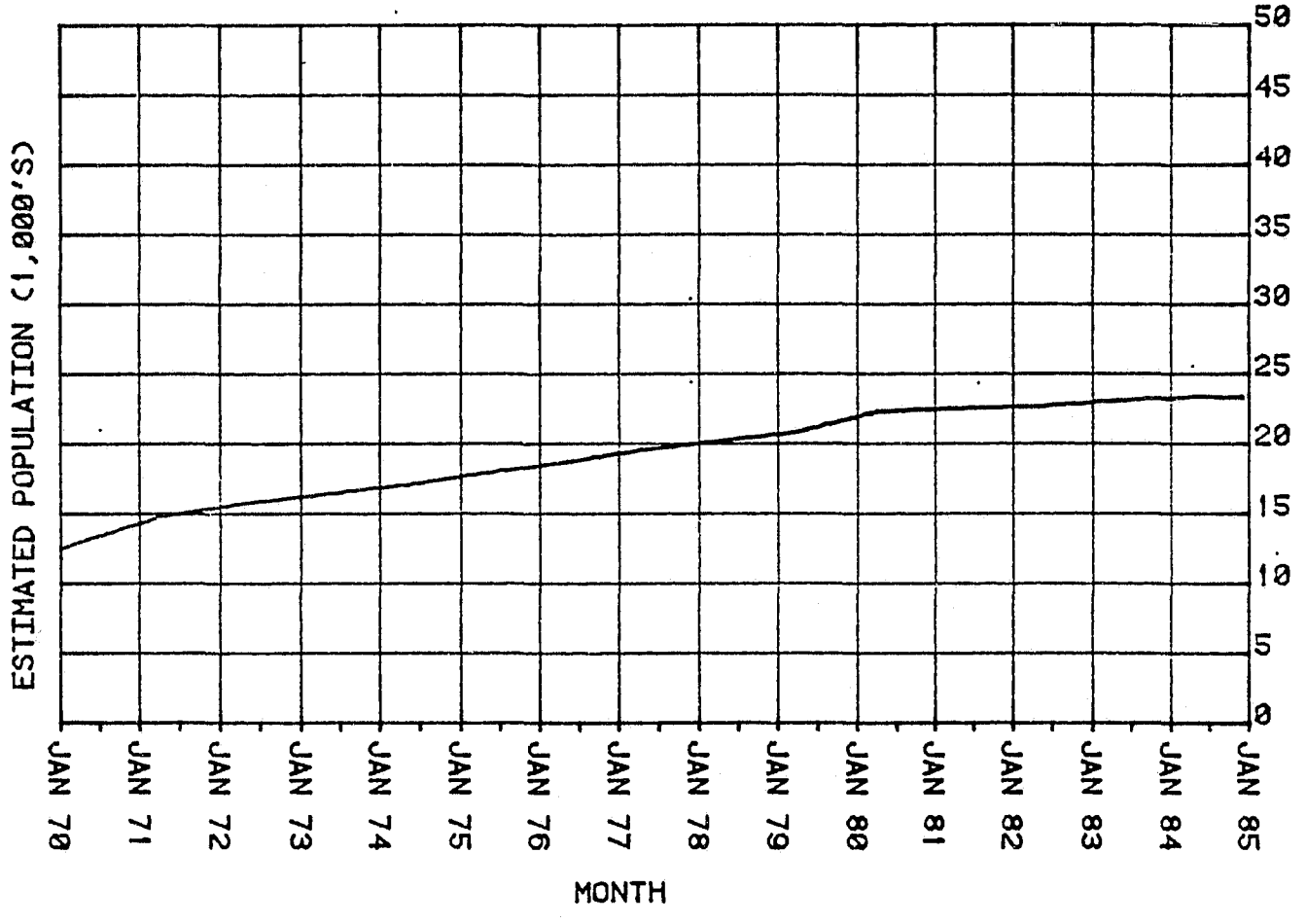
ESTIMATED POPULATION, WHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.41
Y ZERO INTERCEPT = 238.87

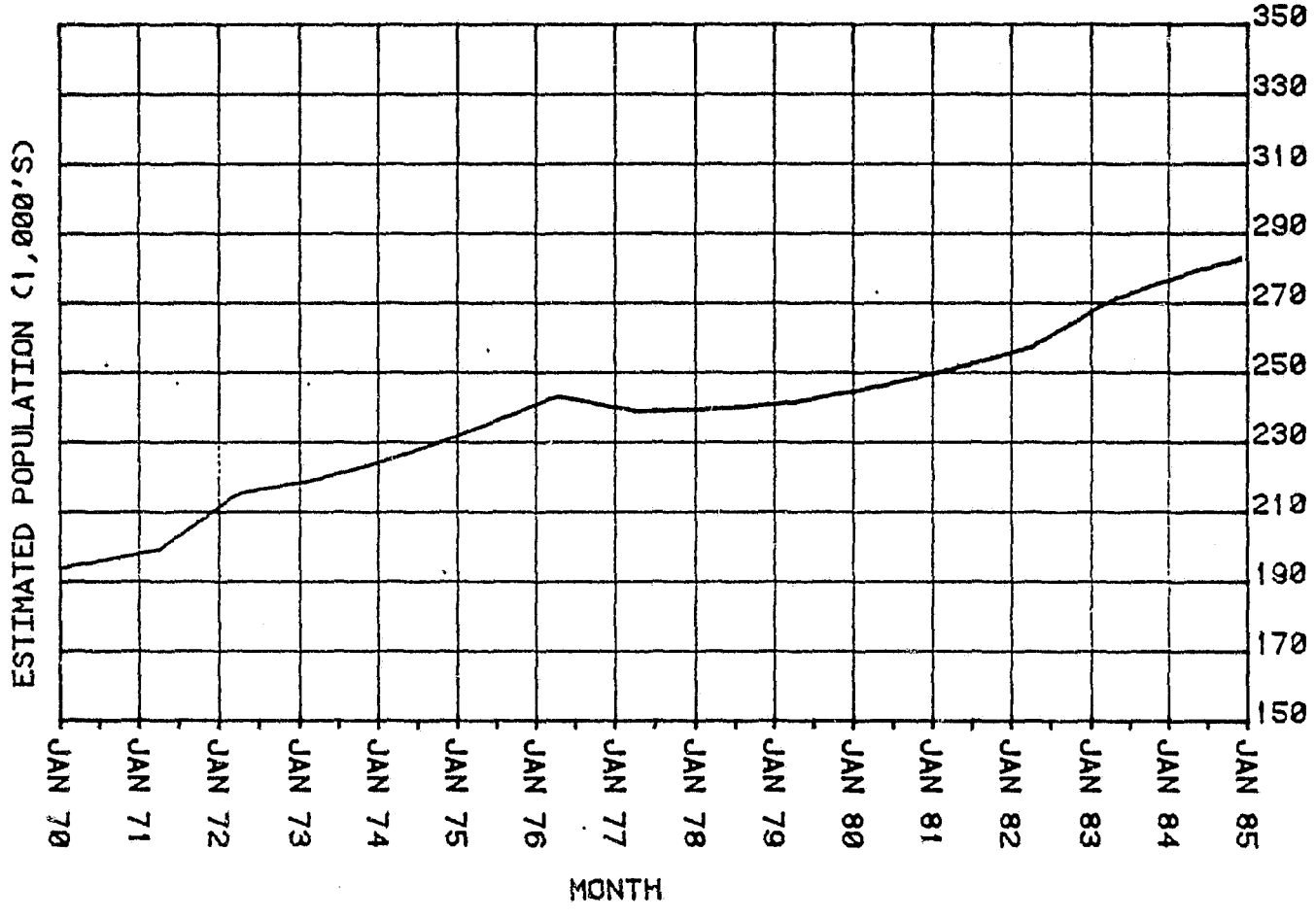
PCT SS EXPLAINED = 94.86

ESTIMATED POPULATION, NONWHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.06 PCT SS EXPLAINED = 97.45
Y ZERO INTERCEPT = 13.94

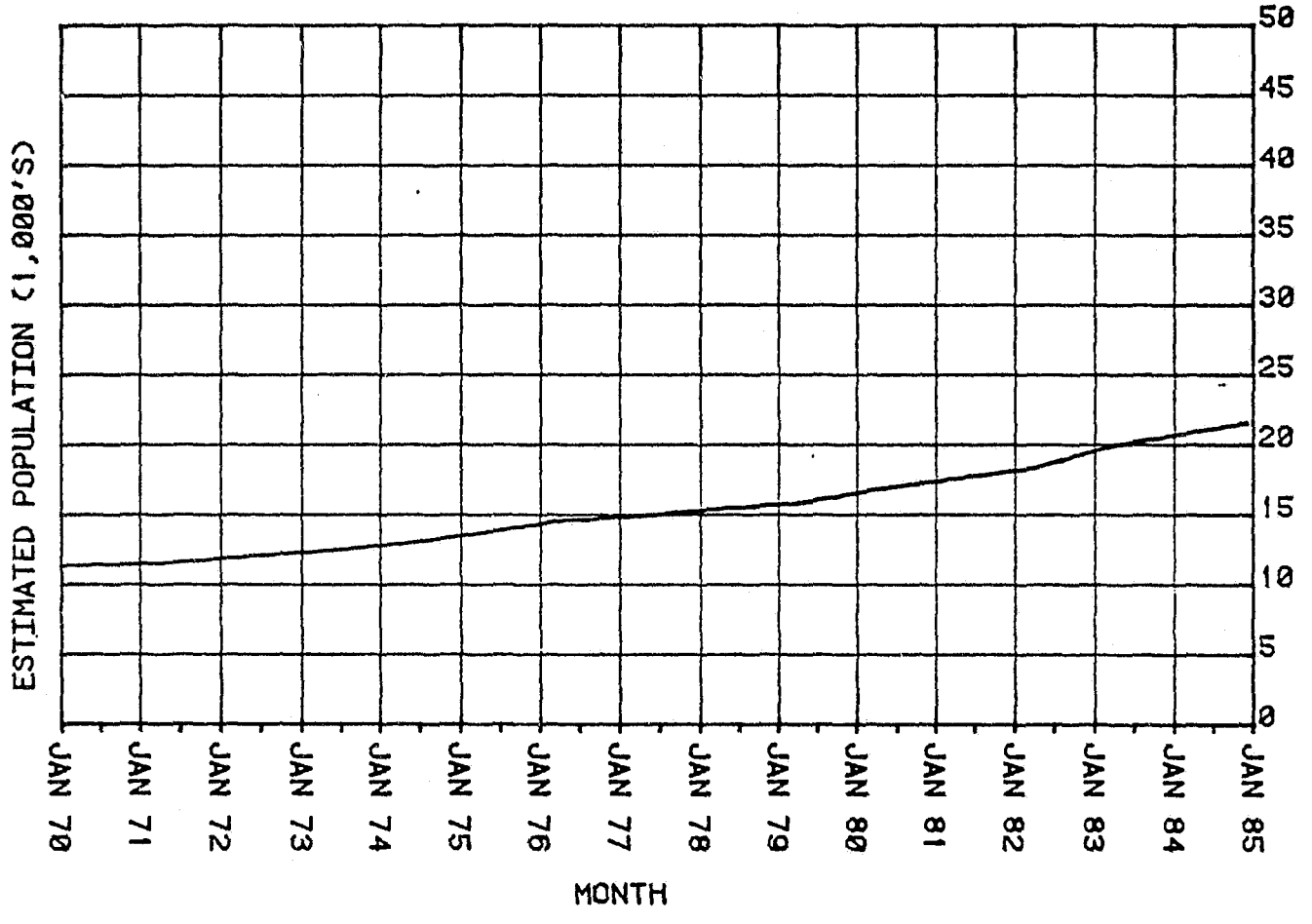
ESTIMATED POPULATION, WHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.42
Y ZERO INTERCEPT = 200.04

PCT SS EXPLAINED = 94.13

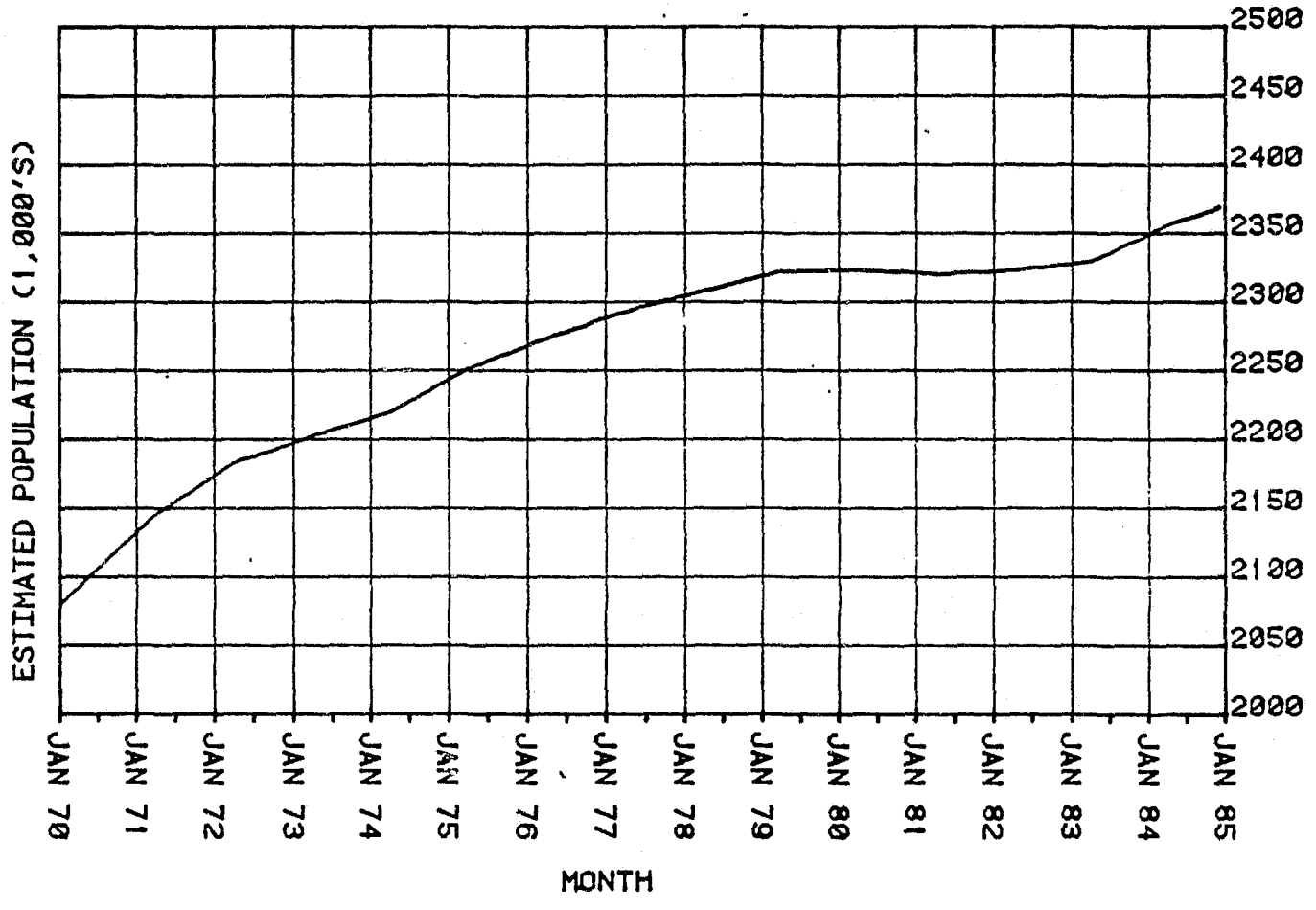
ESTIMATED POPULATION, NONWHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.06
Y ZERO INTERCEPT = 10.27

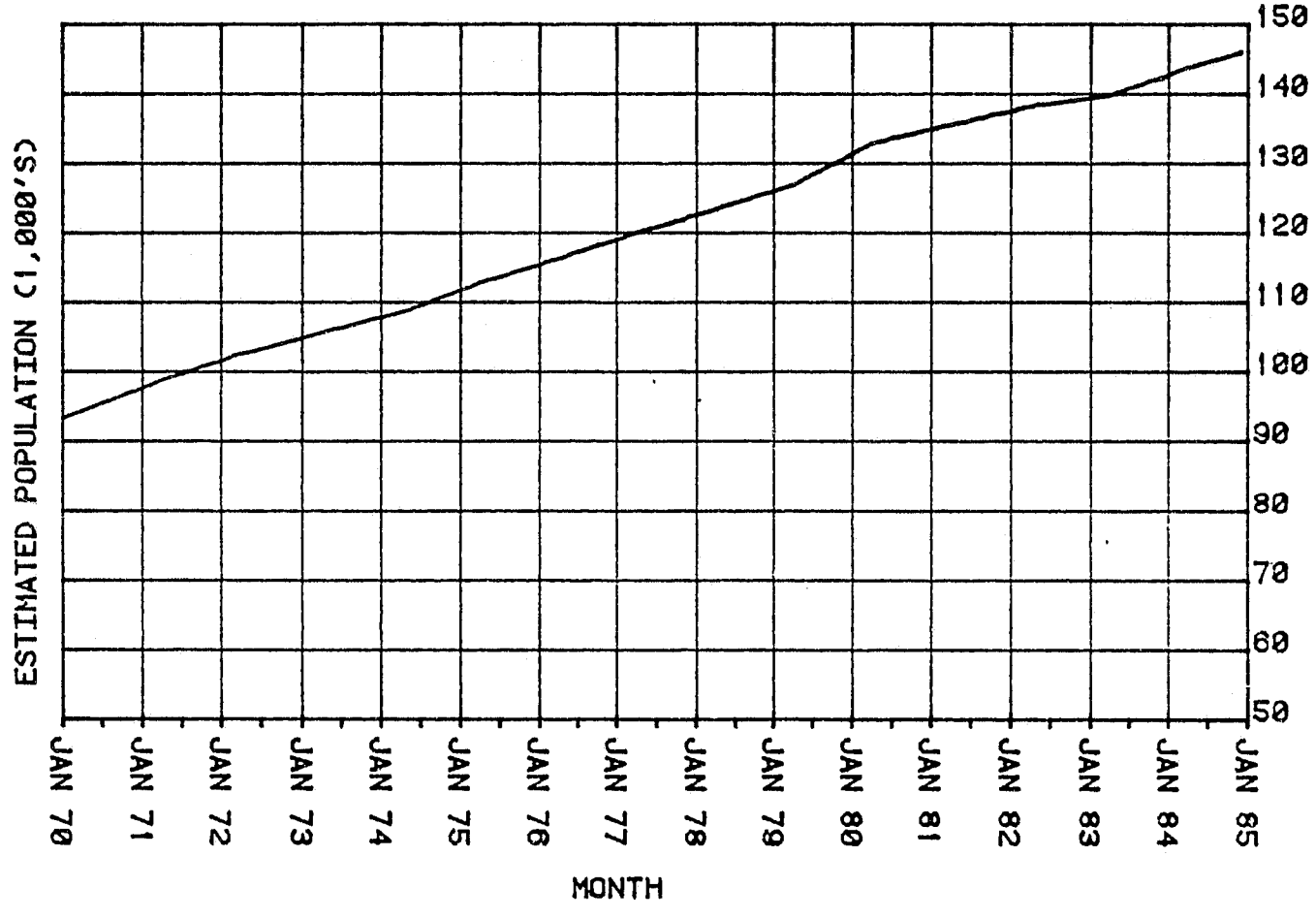
PCT SS EXPLAINED = 97.27

ESTIMATED POPULATION, WHITE MALES, AGES 16 AND OVER
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	2.29	FIRST TURNING POINT	X: 11/76
Y ZERO INTERCEPT =	2104.34		Y: 2295.81
SECOND SLOPE =	0.58	PCT SS EXPLAINED =	98.73
Y ZERO INTERCEPT =	2247.24		

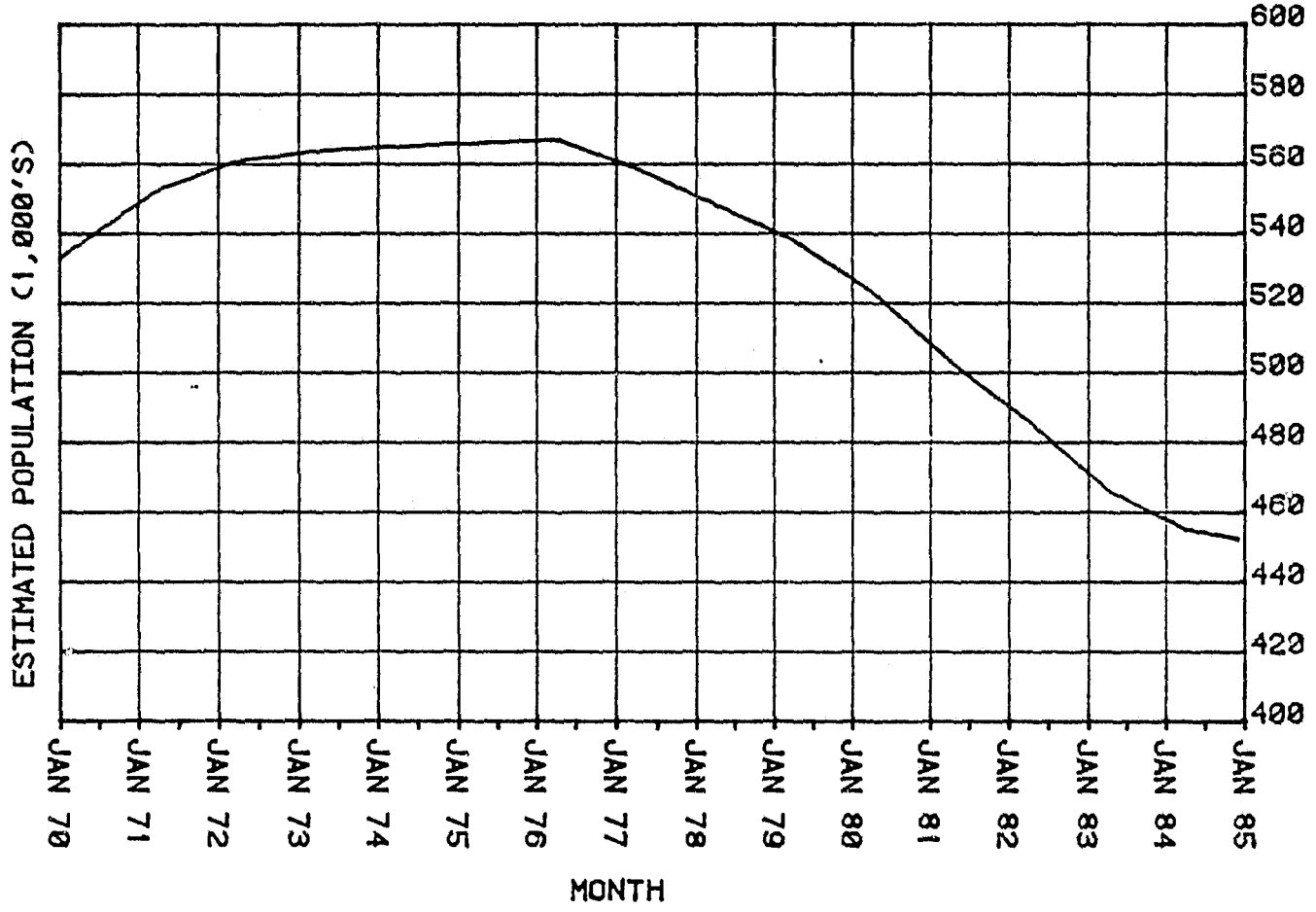
ESTIMATED POPULATION, NONWHITE MALES, AGES 16 AND OVER
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.30
Y ZERO INTERCEPT = 93.96

PCT SS EXPLAINED = 99.72

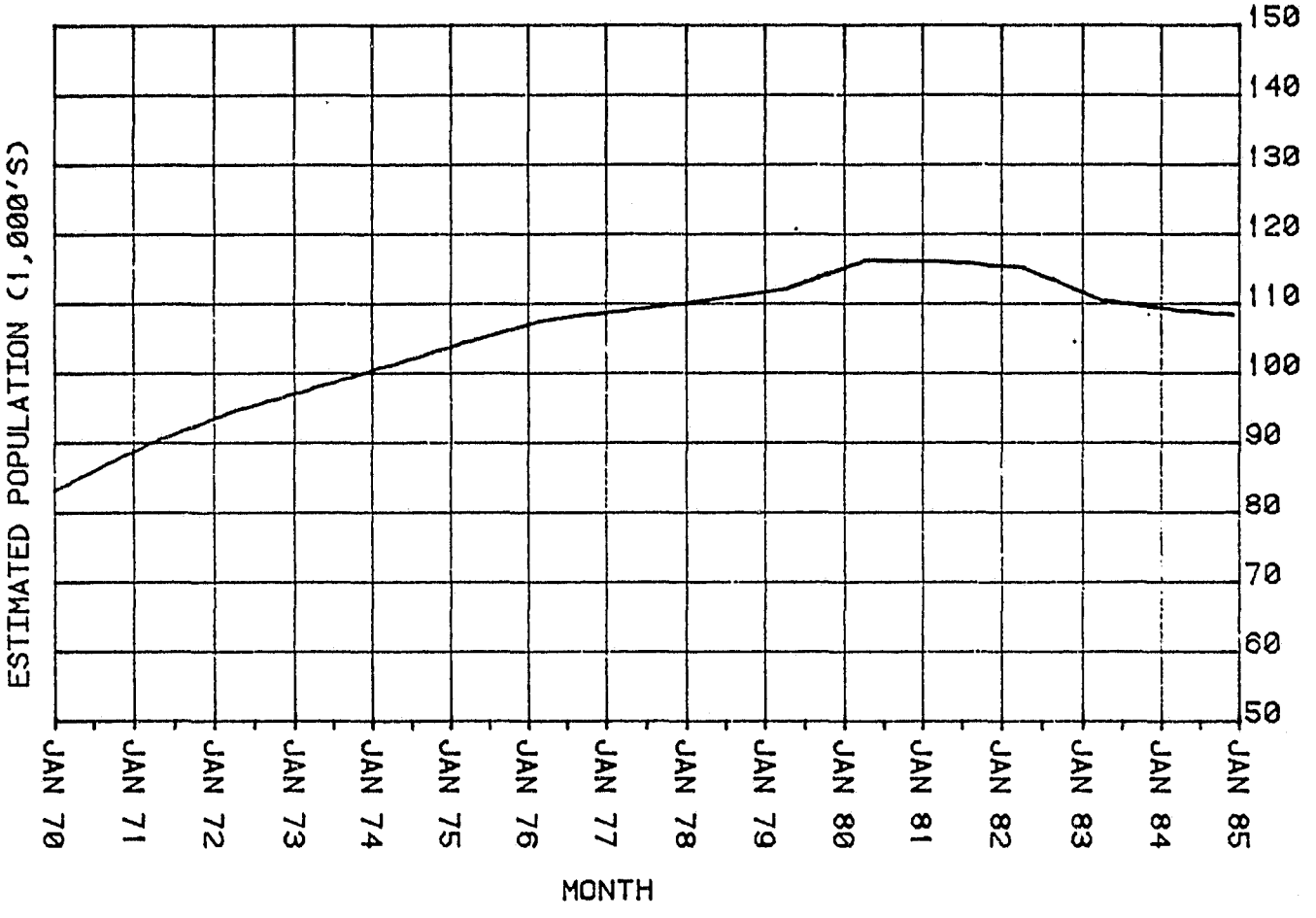
ESTIMATED POPULATION, WHITE MALES, AGES 16 THROUGH 19
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.35
Y ZERO INTERCEPT =	545.30
SECOND SLOPE =	-1.26
Y ZERO INTERCEPT =	673.35

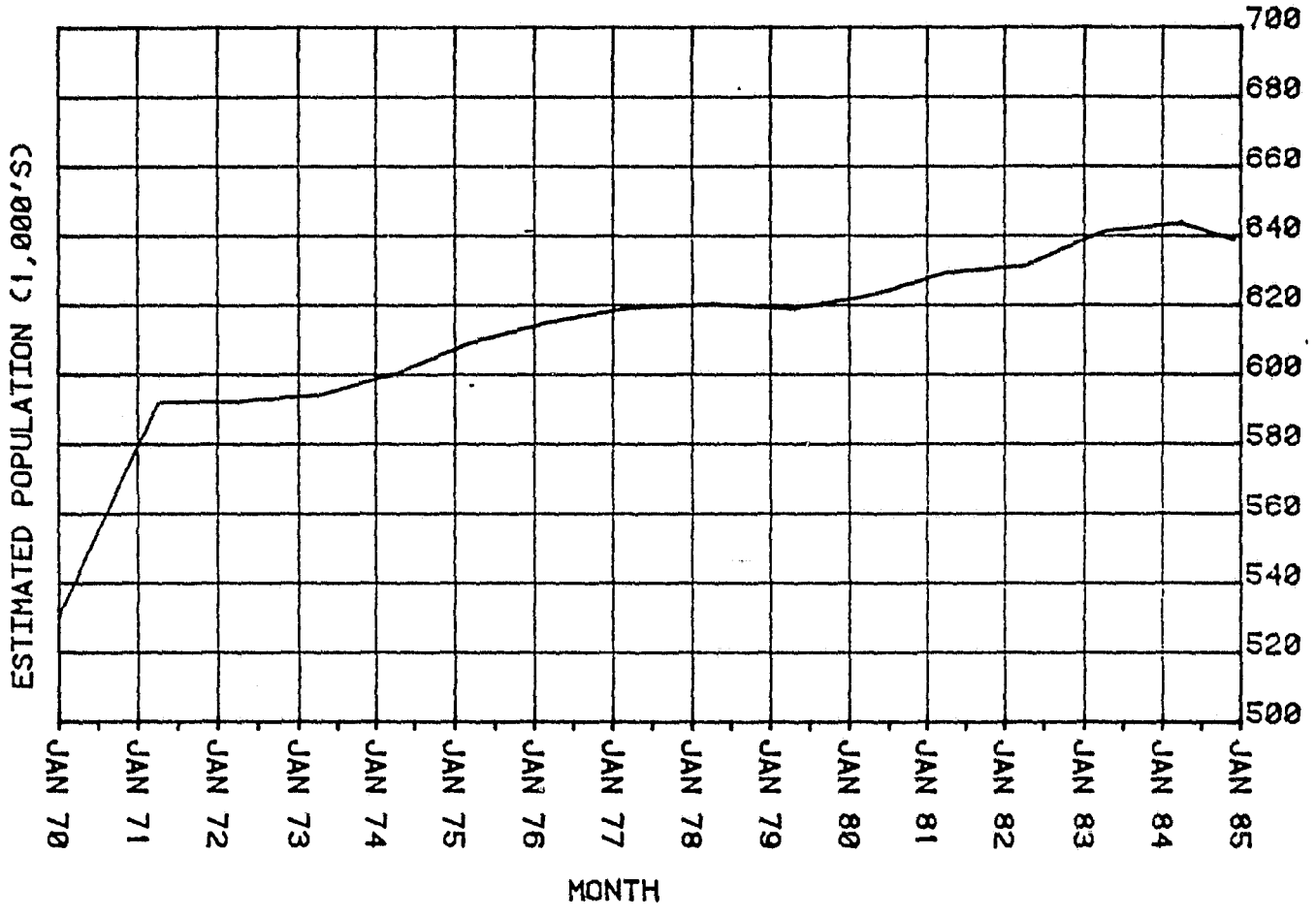
FIRST TURNING POINT X: 7/76
Y: 573.30
PCT SS EXPLAINED = 98.70

ESTIMATED POPULATION, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.24	FIRST TURNING POINT X:	5/80
Y ZERO INTERCEPT =	87.21	Y:	117.72
SECOND SLOPE =	-0.18	PCT SS EXPLAINED =	97.47
Y ZERO INTERCEPT =	140.50		

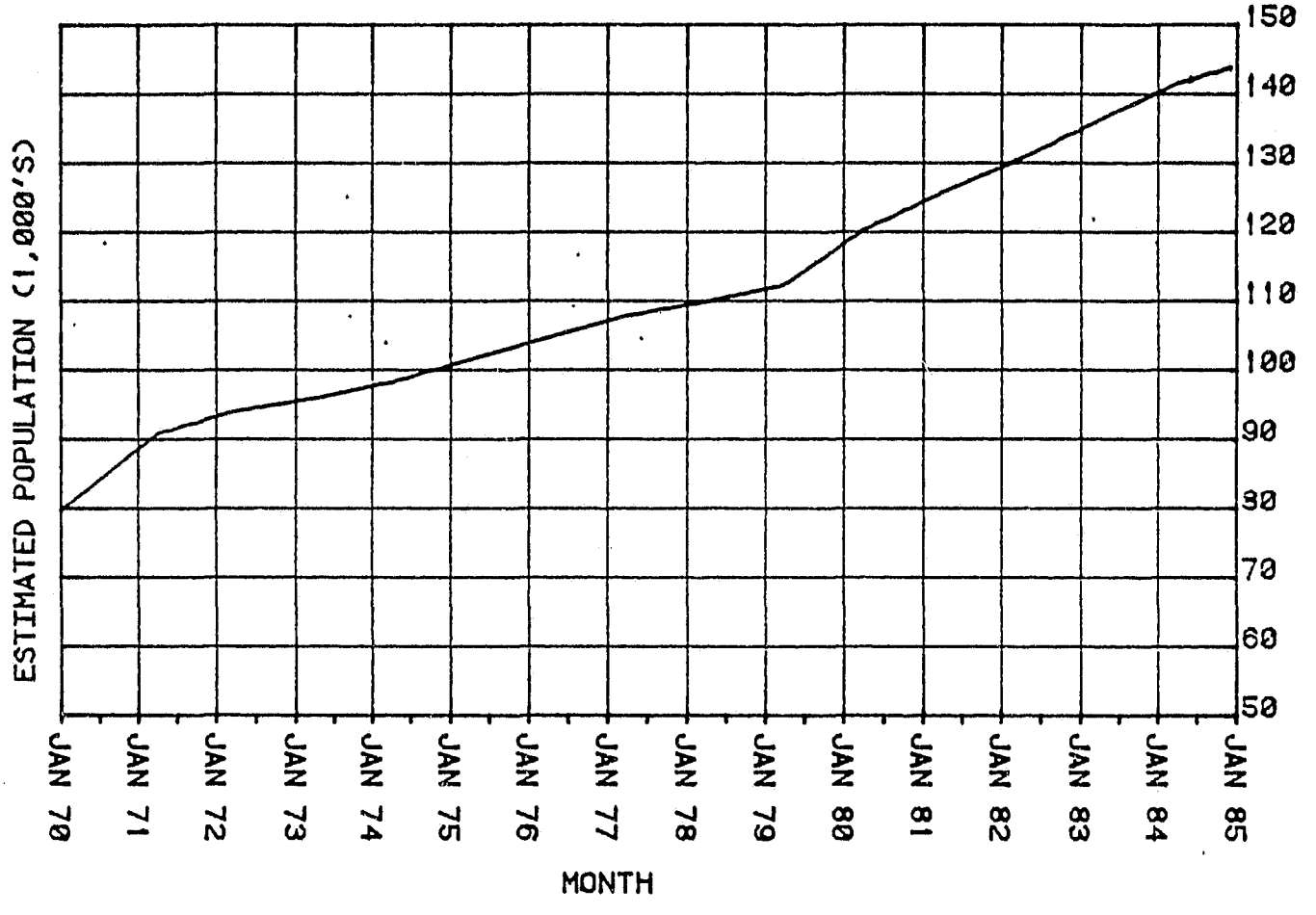
ESTIMATED POPULATION, WHITE MALES, AGES 20 THROUGH 24
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	4.16
Y ZERO INTERCEPT =	525.91
SECOND SLOPE =	0.33
Y ZERO INTERCEPT =	585.33

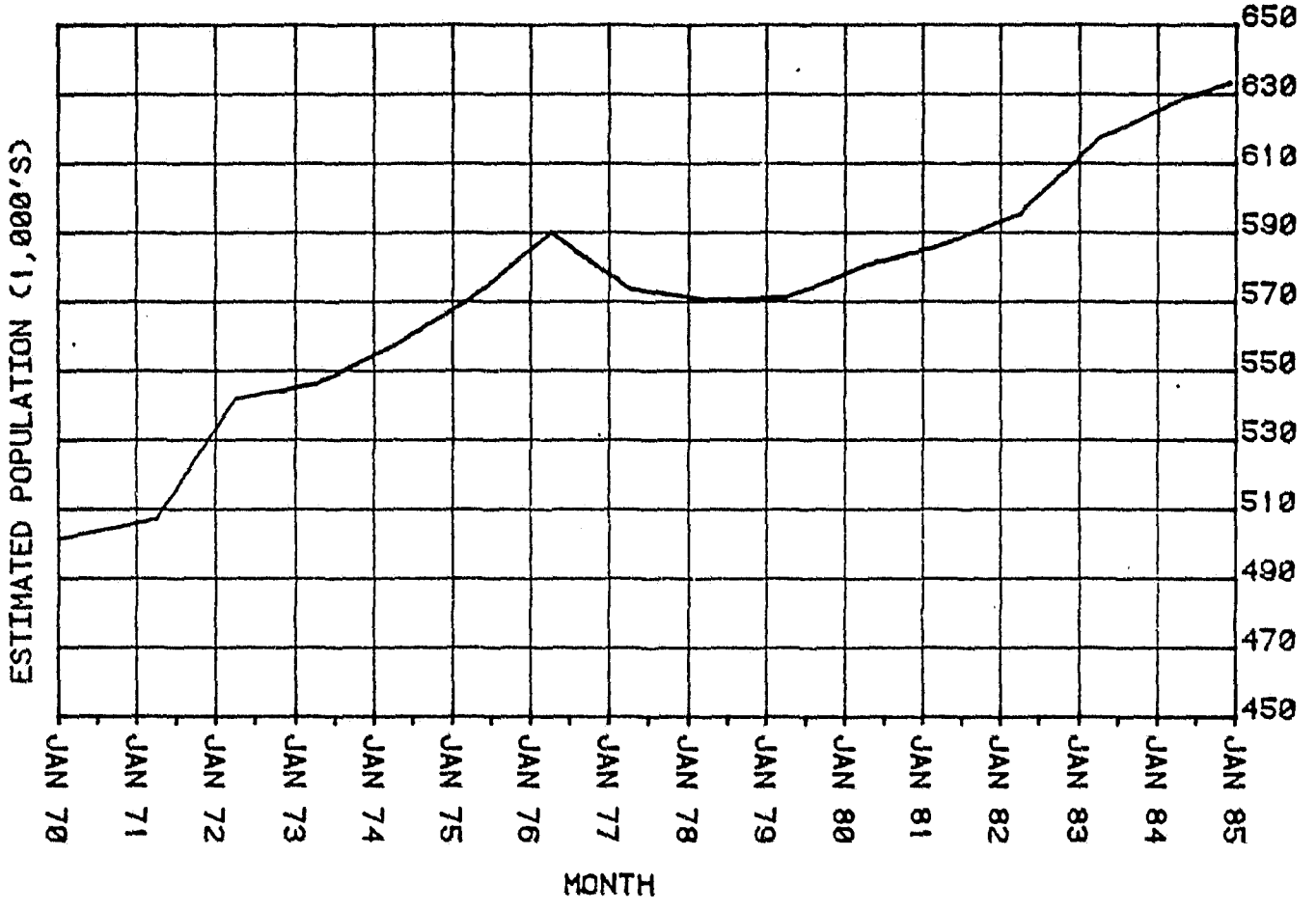
FIRST TURNING POINT X: 3/71
Y: 590.45
PCT SS EXPLAINED = 98.42

ESTIMATED POPULATION, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	0.26	FIRST TURNING POINT X:	2/79
Y ZERO INTERCEPT =	85.04	Y:	113.49
SECOND SLOPE =	0.46	PCT SS EXPLAINED =	99.54
Y ZERO INTERCEPT =	62.94		

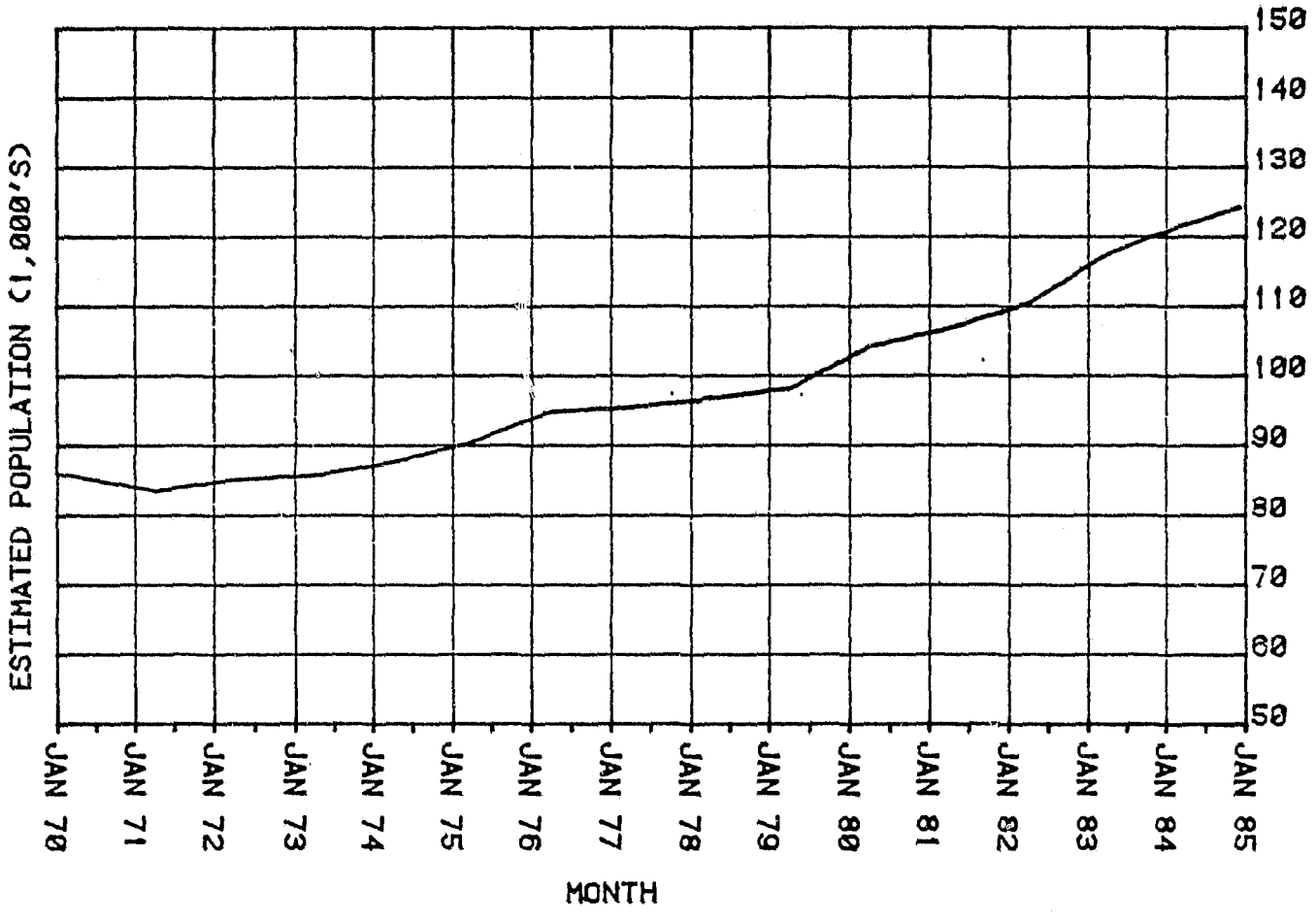
ESTIMATED POPULATION, WHITE MALES, AGES 25 THROUGH 29
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	1.49
Y ZERO INTERCEPT =	492.50
SECOND SLOPE =	0.47
Y ZERO INTERCEPT =	532.65

FIRST TURNING POINT X: 3/73
Y: 551.37
PCT SS EXPLAINED = 91.98

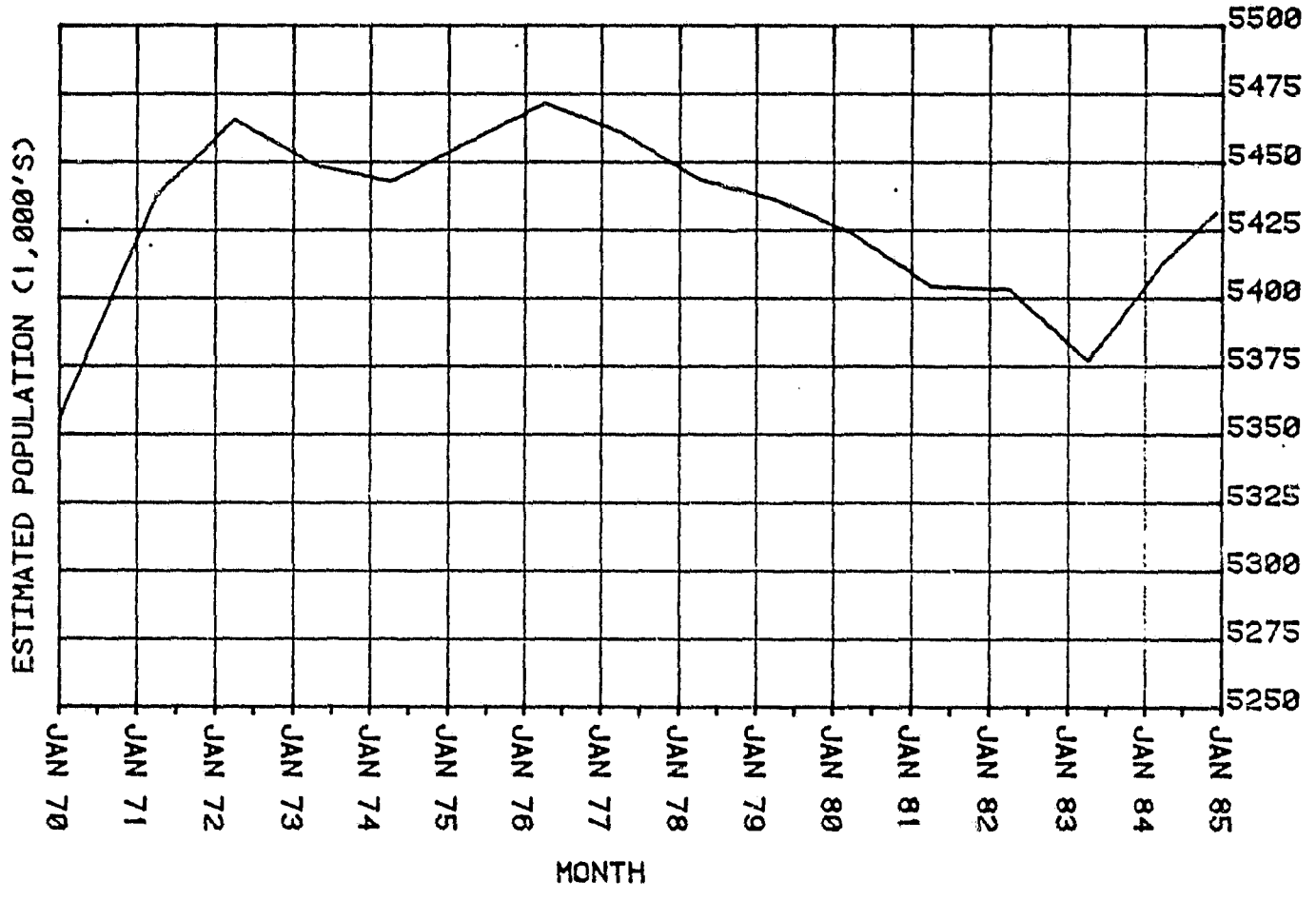
ESTIMATED POPULATION, NONWHITE MALES, AGES 25 THROUGH 29
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE = 0.23
Y ZERO INTERCEPT = 77.87

PCT SS EXPLAINED = 93.79

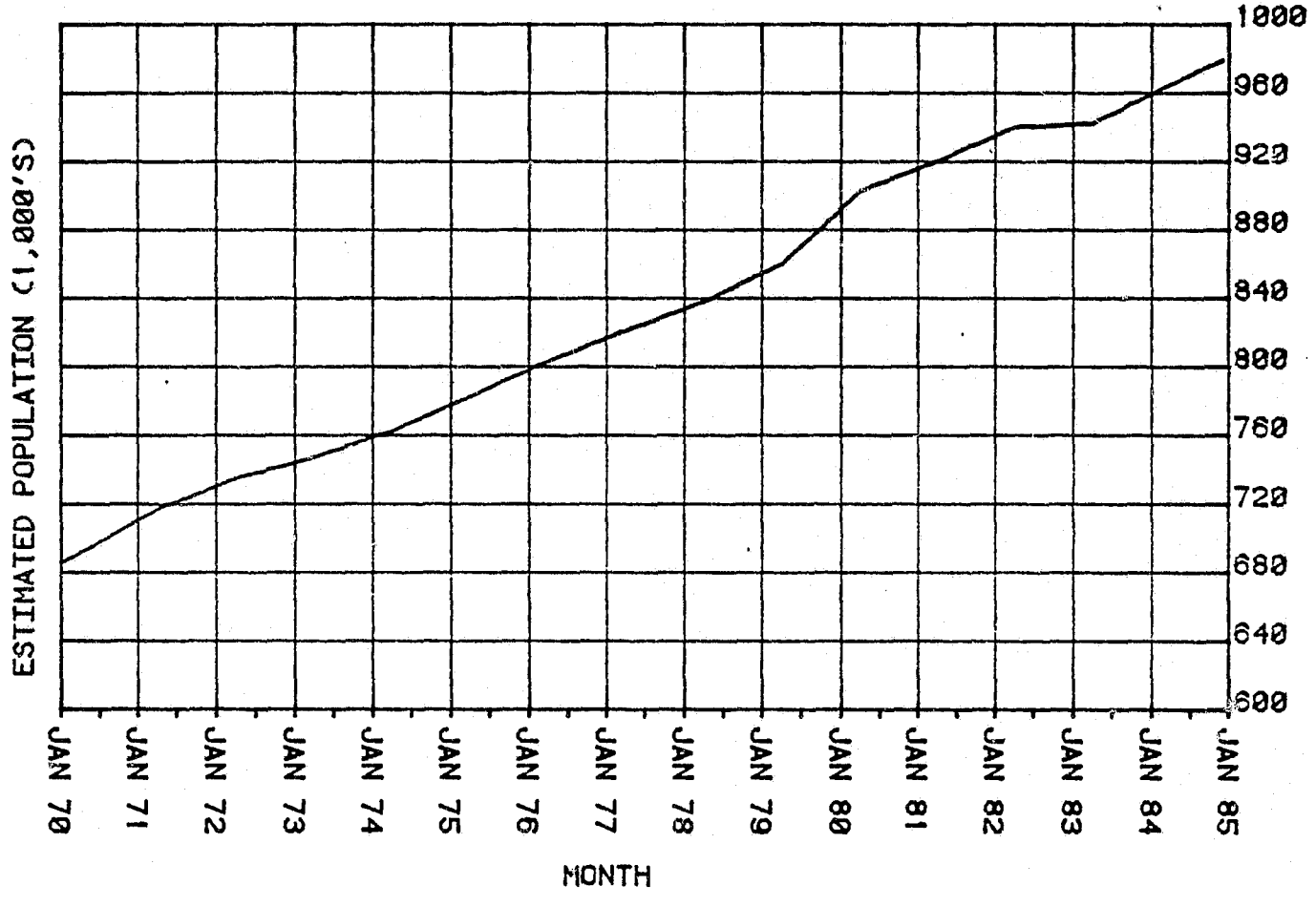
ESTIMATED POPULATION, WHITE MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



FIRST SLOPE =	5.29	
Y ZERO INTERCEPT =	5351.40	
SECOND SLOPE =	0.21	
Y ZERO INTERCEPT =	5445.38	
THIRD SLOPE =	-1.05	
Y ZERO INTERCEPT =	5551.99	
FOURTH SLOPE =	2.78	
Y ZERO INTERCEPT =	4933.36	

FIRST TURNING POINT X:	6/71
Y:	5449.28
SECOND TURNING POINT X:	12/76
Y:	5463.18
THIRD TURNING POINT X:	5/83
Y:	5382.25
PCT SS EXPLAINED =	96.86

ESTIMATED POPULATION, NONWHITE MALES, AGES 16 AND OVER
NEW YORK STATE
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
SOURCE: NATIONAL PLANNING ASSOCIATION
WASHINGTON D.C.



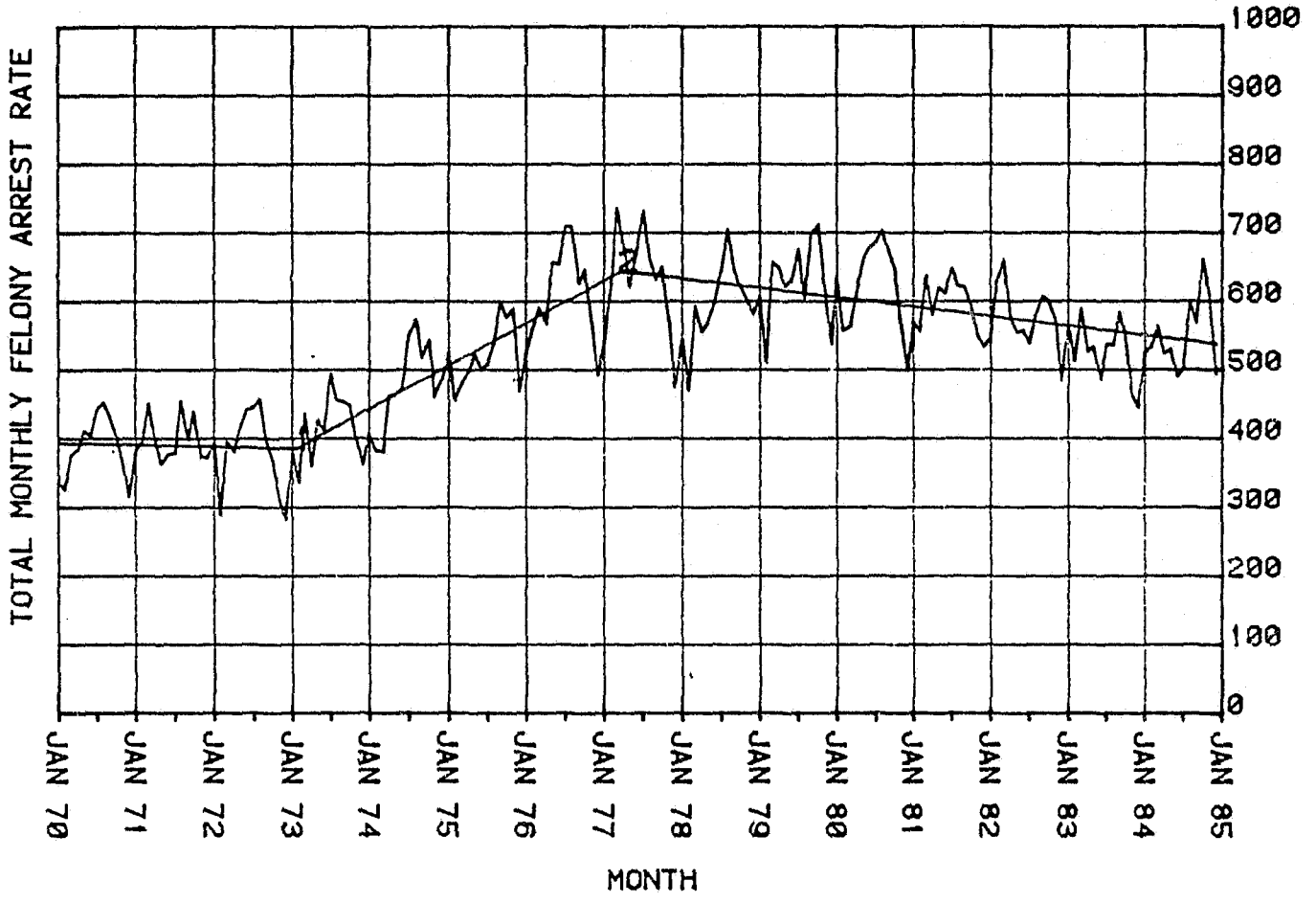
FIRST SLOPE = 1.67
Y.ZERO INTERCEPT = 682.28

PCT SS EXPLAINED = 99.29

APPENDIX B

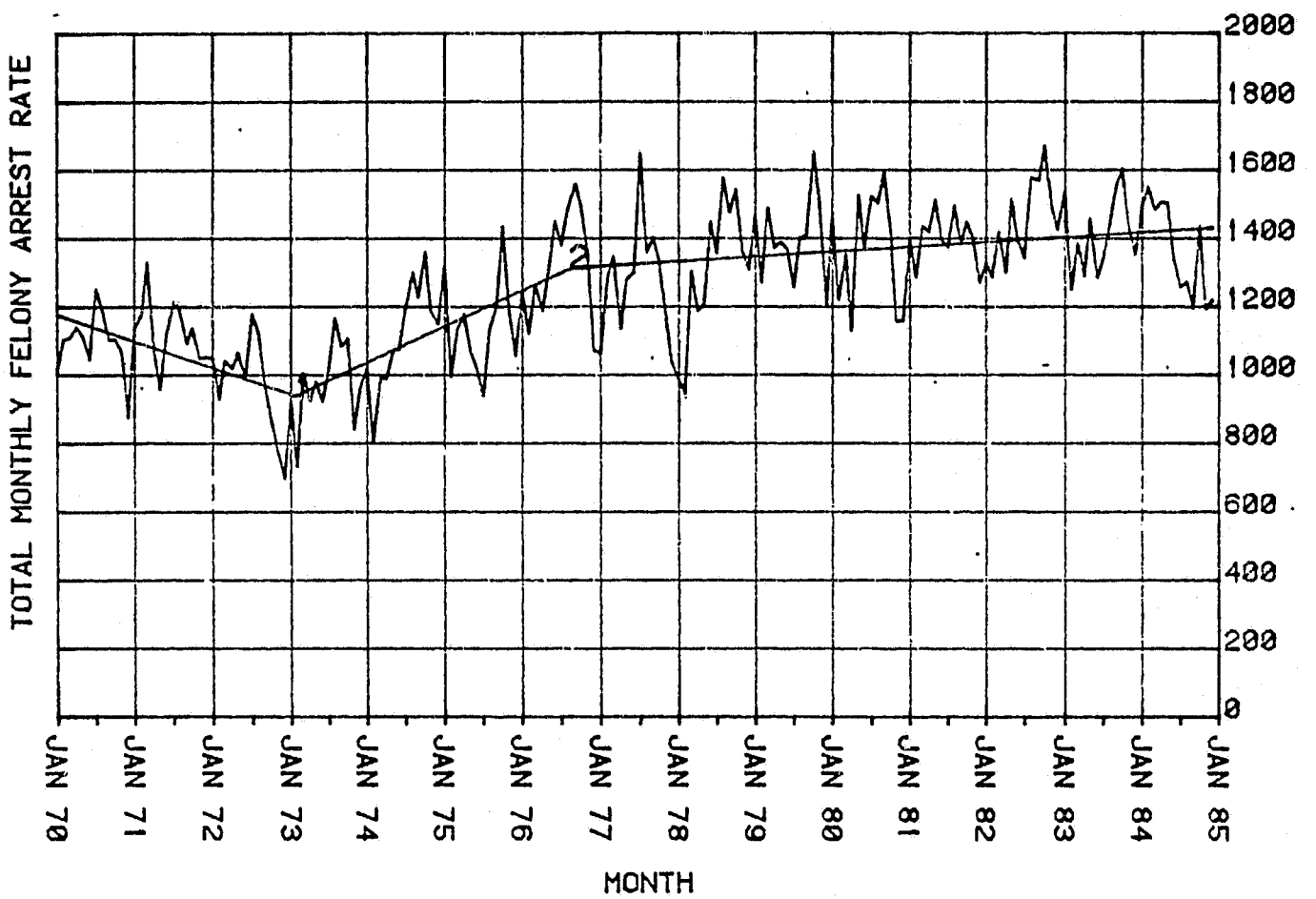
Felony Arrest Rate Per 100,000 by Region, Race, Age and Type of Crime.

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



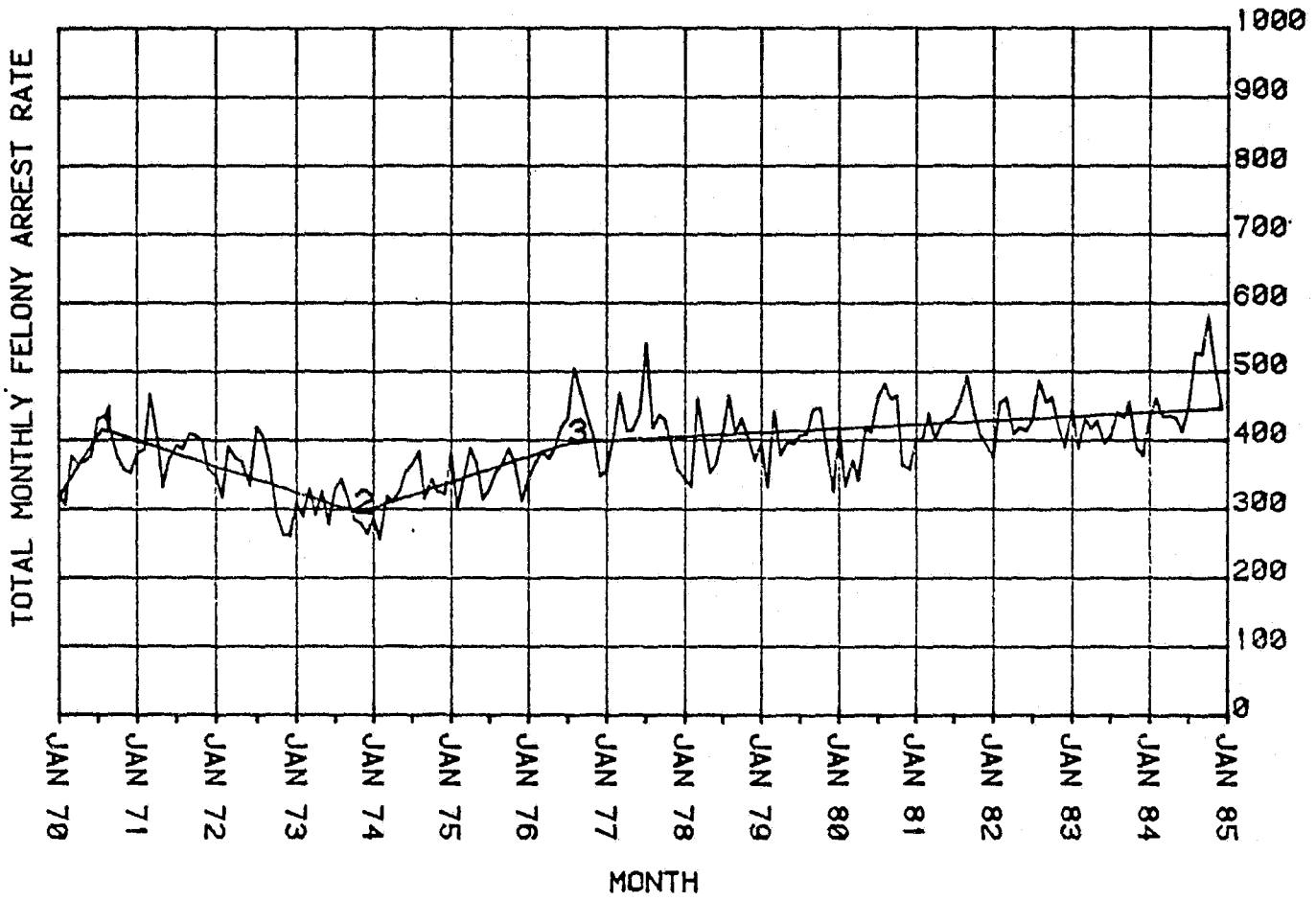
FIRST SLOPE =	-0.26		FIRST TURNING POINT	X:	1/73
Y ZERO INTERCEPT =	393.98			Y:	384.40
SECOND SLOPE =	5.18		SECOND TURNING POINT	X:	3/77
Y ZERO INTERCEPT =	190.09			Y:	643.48
THIRD SLOPE =	-1.14		PCT SS EXPLAINED =		73.93
Y ZERO INTERCEPT =	743.19				

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



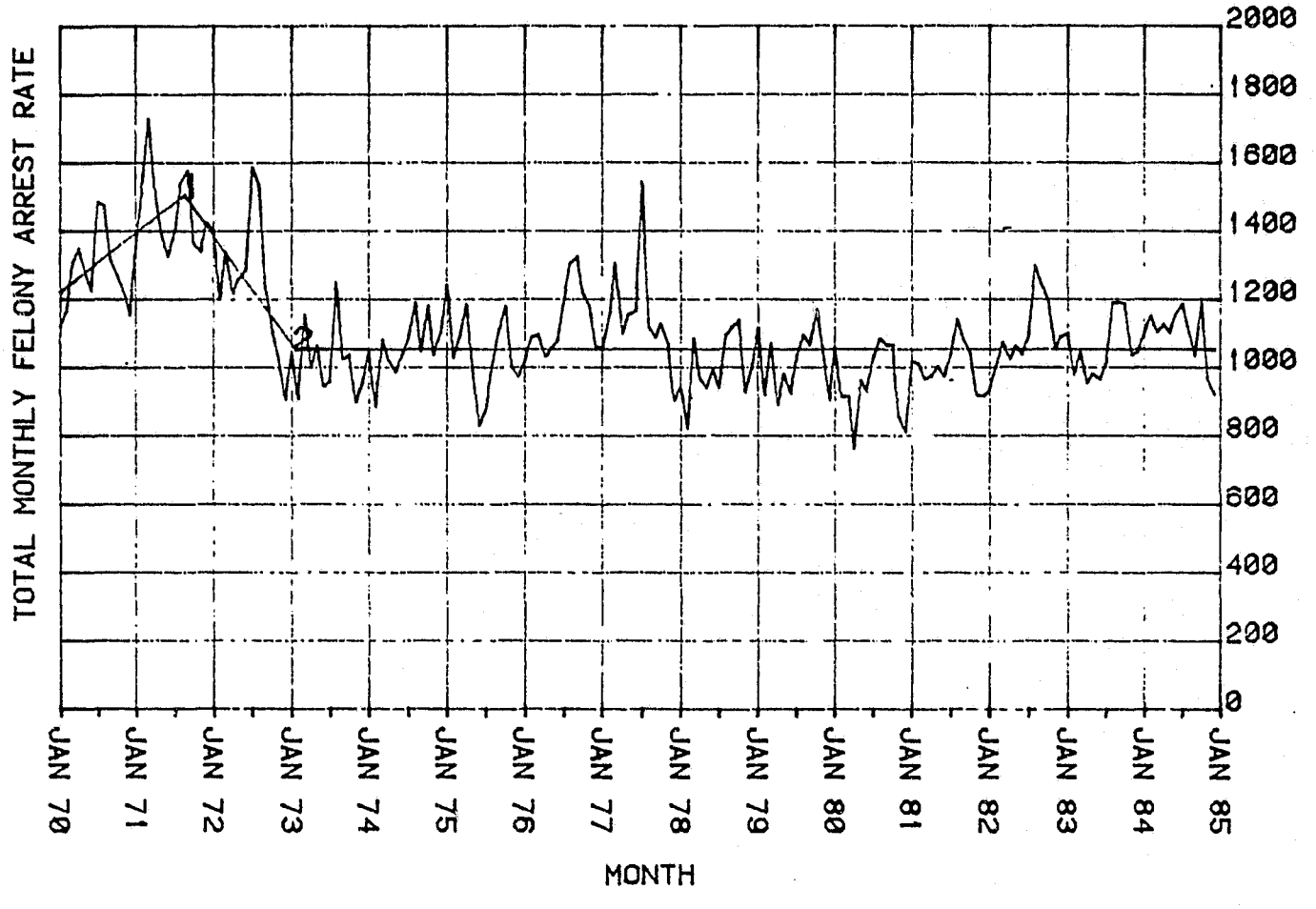
FIRST SLOPE =	-6.55	FIRST TURNING POINT X:	1/73
Y ZERO INTERCEPT =	1181.58	Y:	936.11
SECOND SLOPE =	8.80	SECOND TURNING POINT X:	8/76
Y ZERO INTERCEPT =	606.12	Y:	1314.51
THIRD SLOPE =	1.18	PCT SS EXPLAINED =	58.11
Y ZERO INTERCEPT =	1219.21		

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



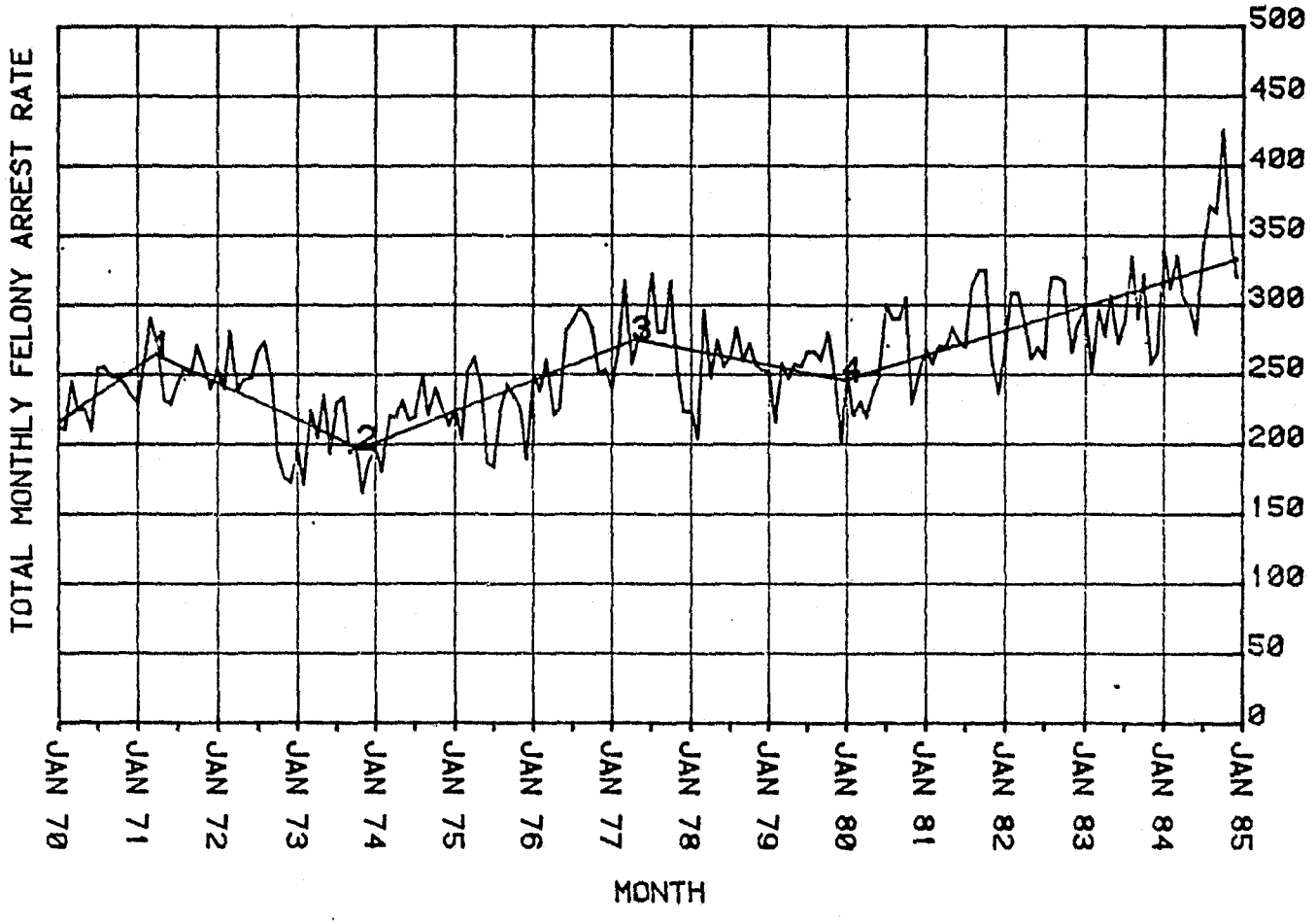
FIRST	SLOPE =	15.23	FIRST	TURNING POINT	X: 7/70
Y ZERO	INTERCEPT =	301.78			Y: 416.00
SECOND	SLOPE =	-3.11	SECOND	TURNING POINT	X: 10/73
Y ZERO	INTERCEPT =	439.36			Y: 294.53
THIRD	SLOPE =	3.10	THIRD	TURNING POINT	X: 7/76
Y ZERO	INTERCEPT =	150.44			Y: 396.79
FOURTH	SLOPE =	0.49	PCT SS	EXPLAINED =	53.58
Y ZERO	INTERCEPT =	358.03			

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	14.51	FIRST TURNING POINT X:	8/71
Y ZERO INTERCEPT =	1207.34	Y:	1504.84
SECOND SLOPE =	-26.45	SECOND TURNING POINT X:	1/73
Y ZERO INTERCEPT =	2047.15	Y:	1055.12
THIRD SLOPE =	-0.02	PCT SS EXPLAINED =	51.00
Y ZERO INTERCEPT =	1055.86		

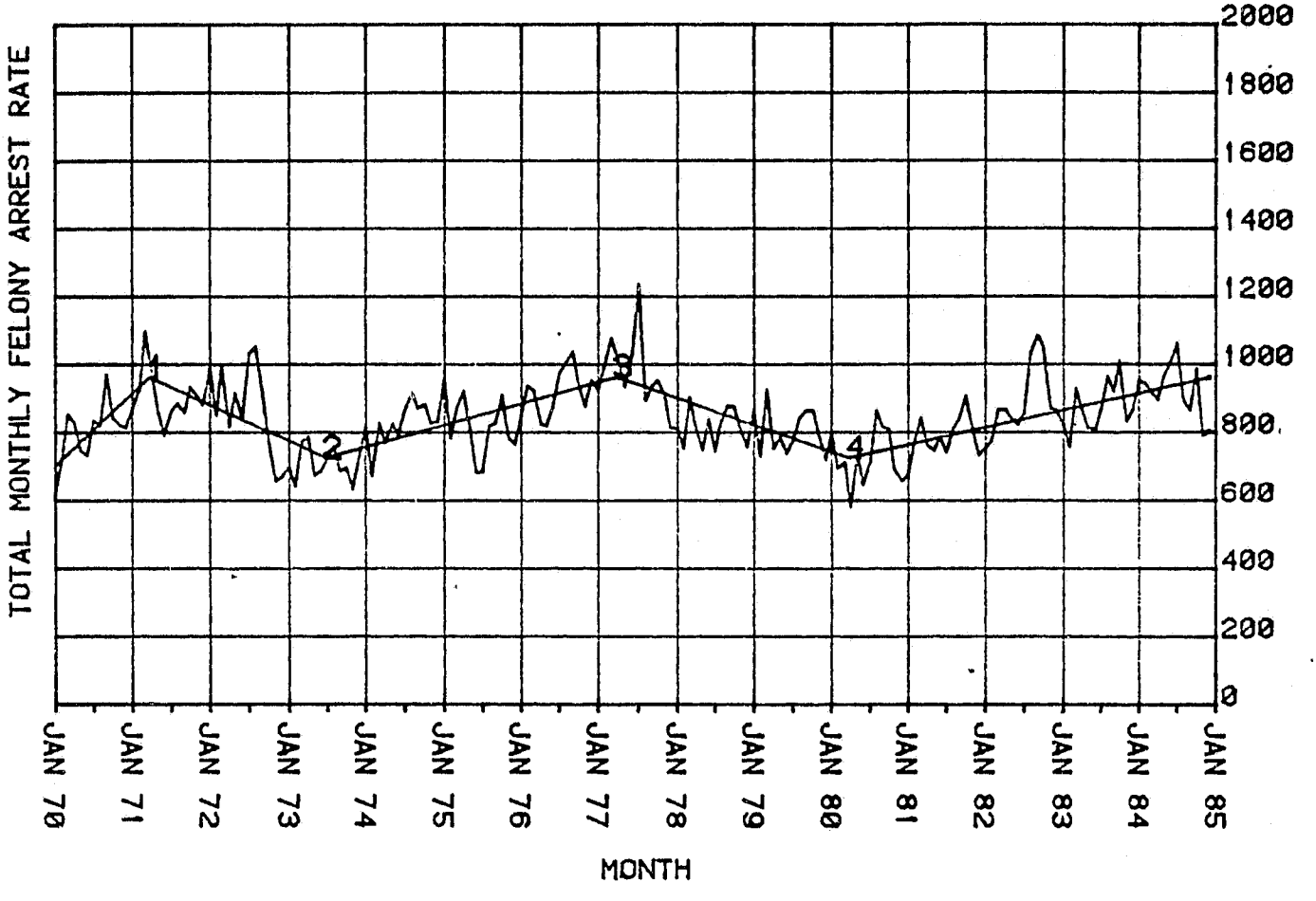
FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	3.33	
Y ZERO INTERCEPT =	212.92	
SECOND SLOPE =	-2.18	
Y ZERO INTERCEPT =	298.29	
THIRD SLOPE =	1.87	
Y ZERO INTERCEPT =	109.95	
FOURTH SLOPE =	-0.92	
Y ZERO INTERCEPT =	356.41	
FIFTH SLOPE =	1.47	
Y ZERO INTERCEPT =	68.95	

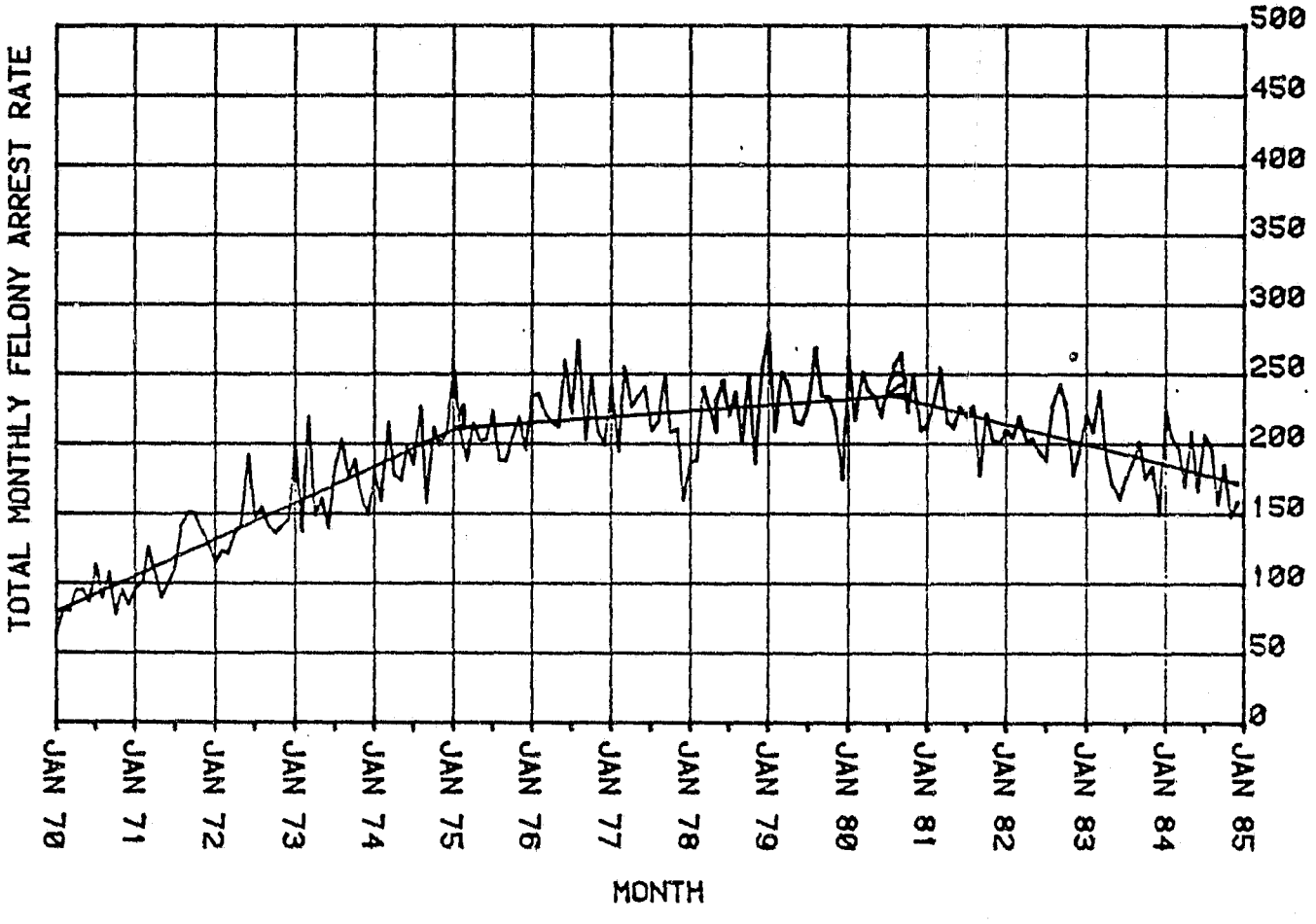
FIRST TURNING POINT	X: 3/71
	Y: 284.48
SECOND TURNING POINT	X: 10/73
	Y: 196.86
THIRD TURNING POINT	X: 4/77
	Y: 275.37
FOURTH TURNING POINT	X: 12/79
	Y: 246.06
PCT SS EXPLAINED =	60.53

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST	SLOPE =	17.74	FIRST	TURNING POINT	X: 3/71
Y ZERO	INTERCEPT =	687.59			Y: 962.60
SECOND	SLOPE =	-8.85	SECOND	TURNING POINT	X: 6/73
Y ZERO	INTERCEPT =	1099.85			Y: 723.52
THIRD	SLOPE =	5.32	THIRD	TURNING POINT	X: 3/77
Y ZERO	INTERCEPT =	497.56			Y: 962.78
FOURTH	SLOPE =	-6.59	FOURTH	TURNING POINT	X: 3/80
Y ZERO	INTERCEPT =	1539.07			Y: 725.68
FIFTH	SLOPE =	4.17	PCT SS	EXPLAINED =	42.26
Y ZERO	INTERCEPT =	210.16			

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	2.18
Y ZERO INTERCEPT =	76.87
SECOND SLOPE =	0.36
Y ZERO INTERCEPT =	188.99
THIRD SLOPE =	-1.19
Y ZERO INTERCEPT =	386.95

FIRST TURNING POINT X:	1/75
Y:	211.13
SECOND TURNING POINT X:	7/80
Y:	234.90
PCT SS EXPLAINED =	79.38

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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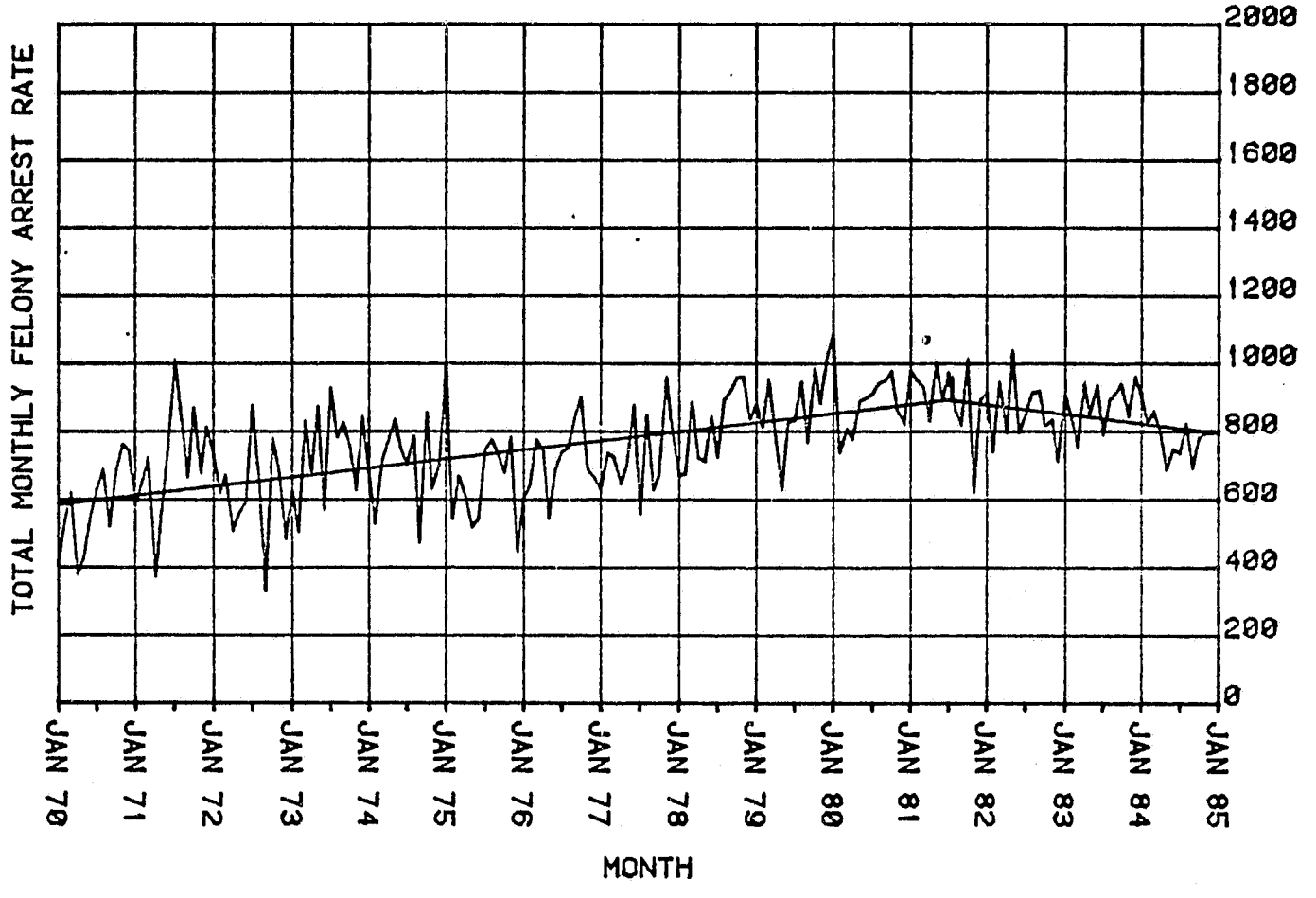

FIRST SLOPE =	2.22
Y ZERO INTERCEPT =	585.84
SECOND SLOPE =	-2.27
Y ZERO INTERCEPT =	1207.75

FIRST TURNING POINT X: 6/81
Y: 893.31
PCT SS EXPLAINED = 37.28

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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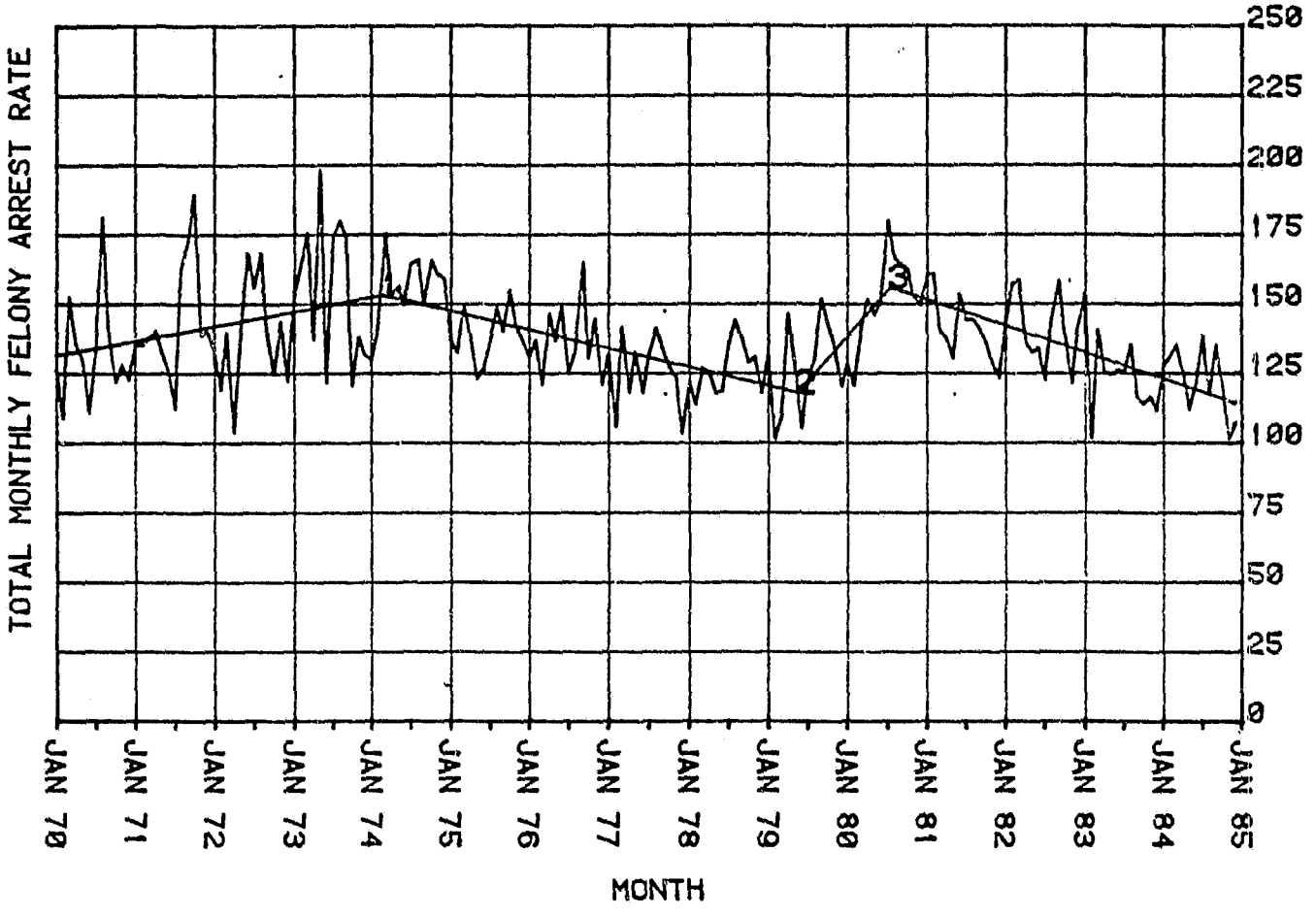

FIRST SLOPE =	0.44	
Y ZERO INTERCEPT =	131.08	
SECOND SLOPE =	-0.56	
Y ZERO INTERCEPT =	181.51	
THIRD SLOPE =	2.71	
Y ZERO INTERCEPT =	-189.82	
FOURTH SLOPE =	-0.79	
Y ZERO INTERCEPT =	256.88	

FIRST TURNING POINT X:	2/74
Y:	153.28
SECOND TURNING POINT X:	5/79
Y:	118.05
THIRD TURNING POINT X:	7/80
Y:	156.02
PCT SS EXPLAINED =	32.24

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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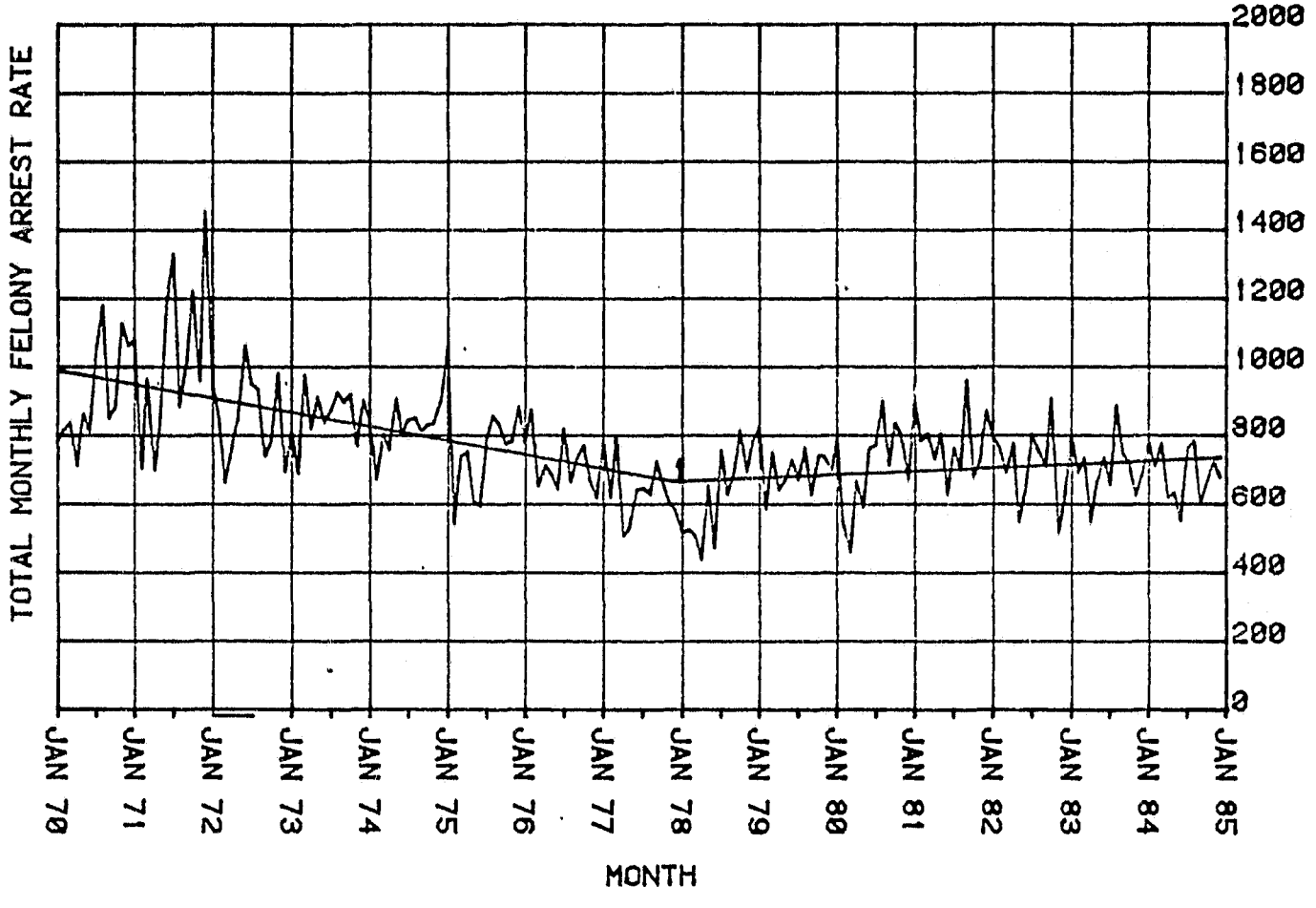
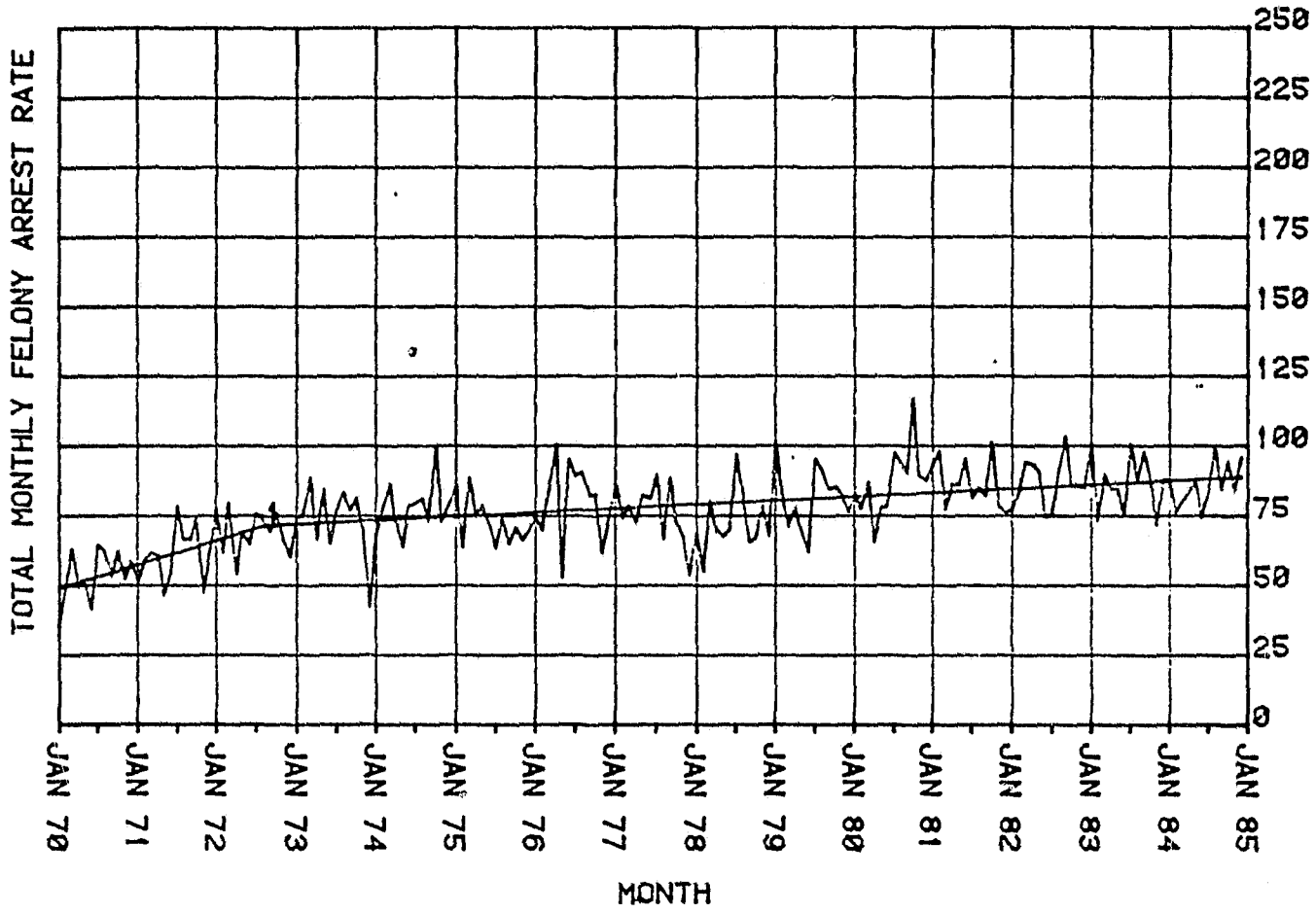


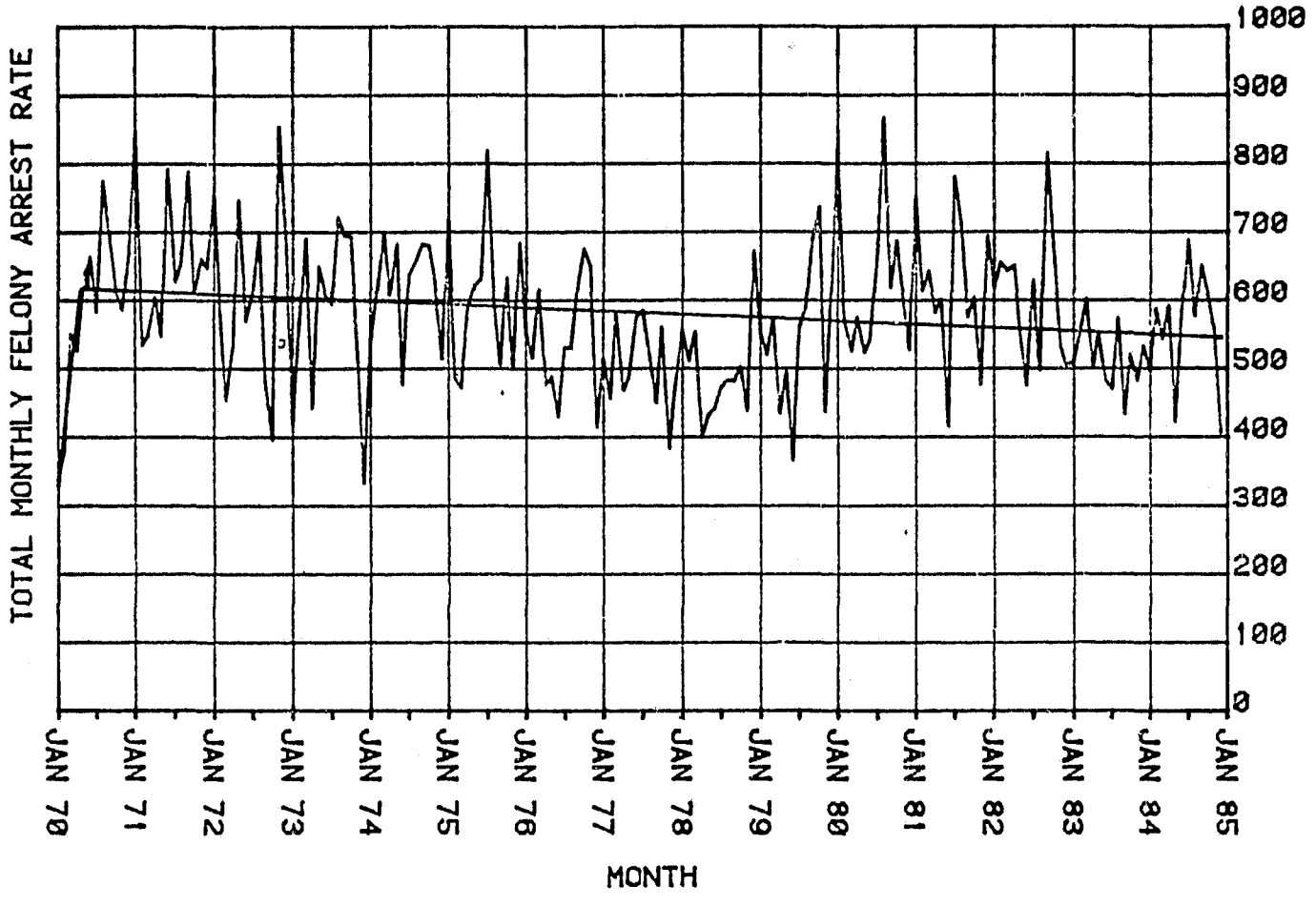
FIRST SLOPE =	-3.43	FIRST TURNING POINT X:	11/77
Y ZERO INTERCEPT =	994.28	Y:	667.04
SECOND SLOPE =	0.81	PCT SS EXPLAINED =	37.14
Y ZERO INTERCEPT =	589.60		

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.72	FIRST TURNING POINT X:	8/72
Y ZERO INTERCEPT =	48.34	Y:	71.80
SECOND SLOPE =	0.12	PCT SS EXPLAINED =	46.17
Y ZERO INTERCEPT =	68.03		

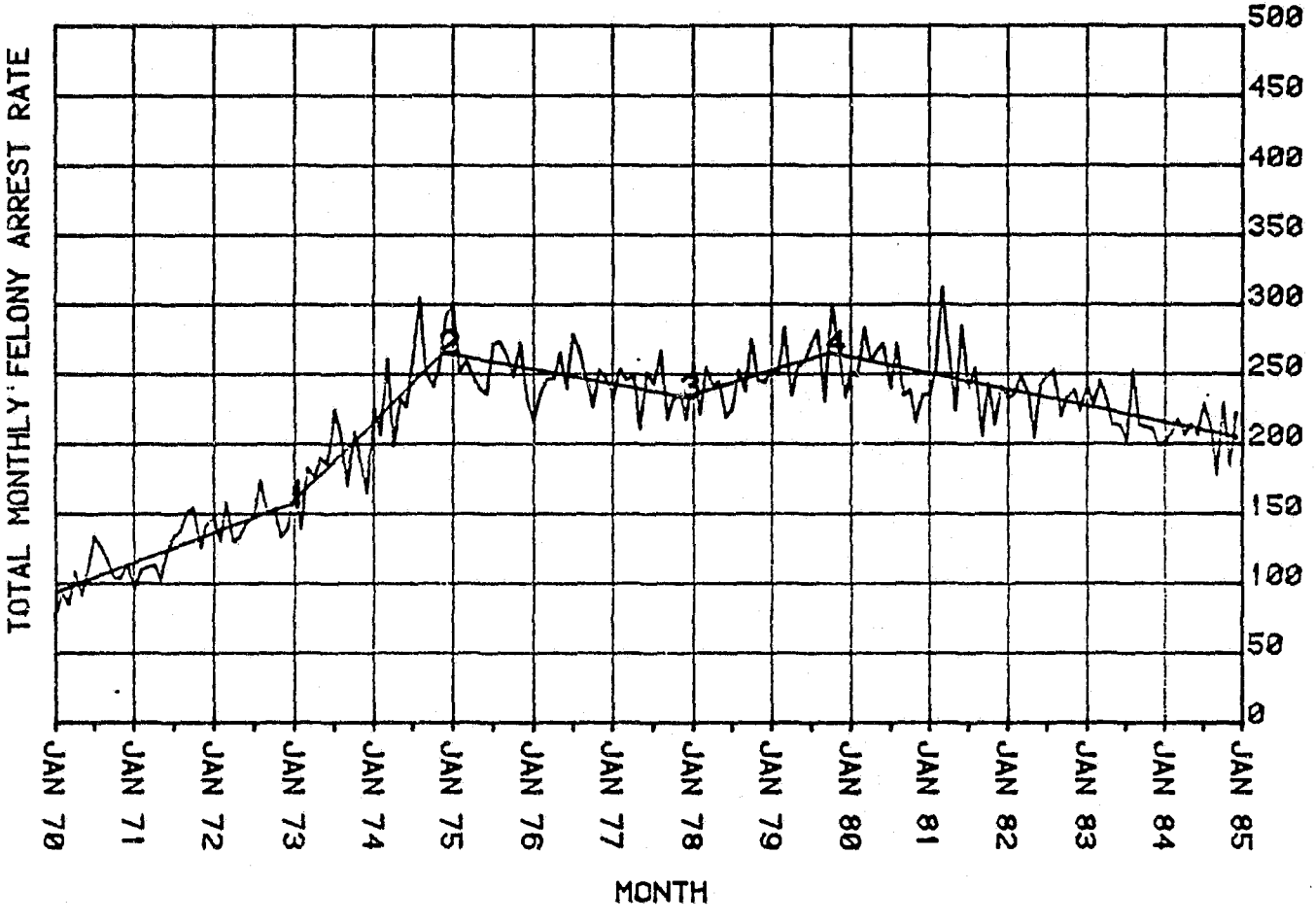
FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	82.11
Y ZERO INTERCEPT =	247.58
SECOND SLOPE =	-0.40
Y ZERO INTERCEPT =	618.88

FIRST TURNING POINT X: 4/79
Y: 617.06
PCT SS EXPLAINED = 8.49

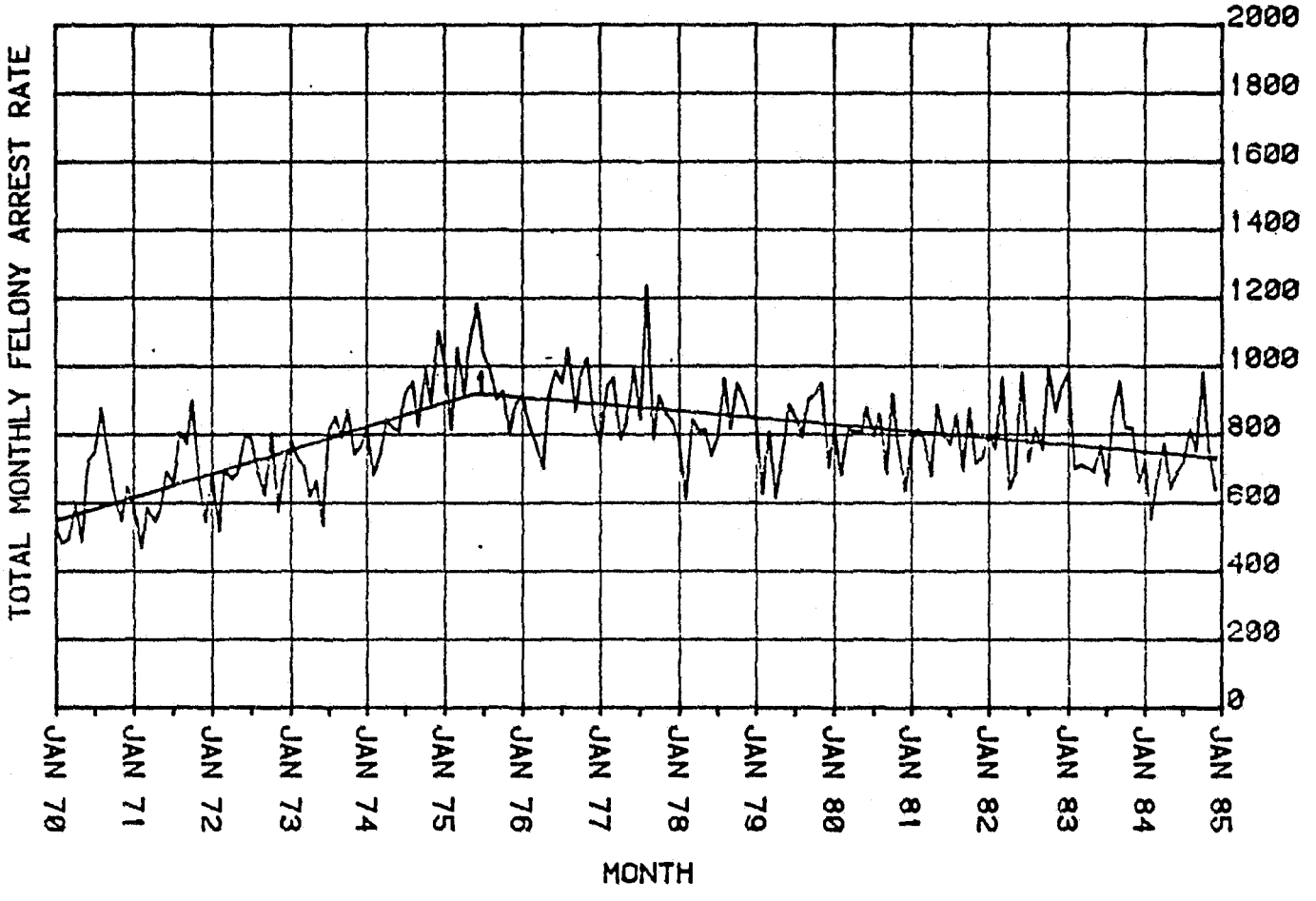
FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	1.78	
Y ZERO INTERCEPT =	92.43	
SECOND SLOPE =	4.69	
Y ZERO INTERCEPT =	-13.59	
THIRD SLOPE =	-0.89	
Y ZERO INTERCEPT =	318.35	
FOURTH SLOPE =	1.44	
Y ZERO INTERCEPT =	96.03	
FIFTH SLOPE =	-0.97	
Y ZERO INTERCEPT =	379.18	

FIRST TURNING POINT	X: 12/72
	Y: 157.58
SECOND TURNING POINT	X: 11/74
	Y: 265.45
THIRD TURNING POINT	X: 11/77
	Y: 233.44
FOURTH TURNING POINT	X: 9/79
	Y: 265.09
PCT SS EXPLAINED =	88.35

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	5.72	FIRST TURNING POINT X:	5/75
Y ZERO INTERCEPT =	544.37	Y:	918.85
SECOND SLOPE =	-1.64	PCT SS EXPLAINED =	41.70
Y ZERO INTERCEPT =	1026.41		

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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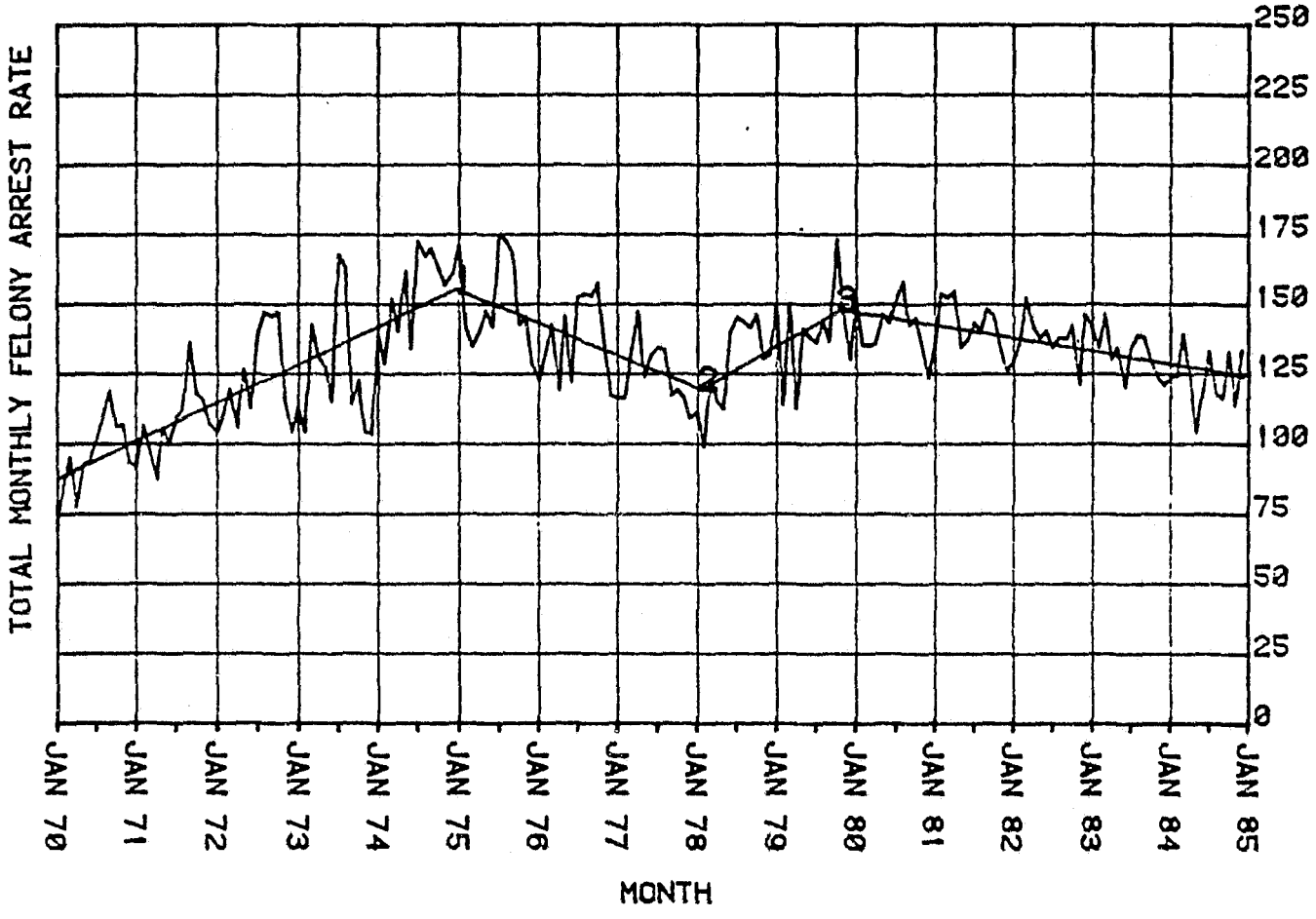

FIRST SLOPE =	1.14		FIRST TURNING POINT	X:	12/74
Y ZERO INTERCEPT =	86.41			Y:	155.53
SECOND SLOPE =	-0.98		SECOND TURNING POINT	X:	1/78
Y ZERO INTERCEPT =	214.85			Y:	119.26
THIRD SLOPE =	1.37		THIRD TURNING POINT	X:	10/79
Y ZERO INTERCEPT =	-14.33			Y:	148.03
FOURTH SLOPE =	-0.39		PCT SS EXPLAINED =		57.34
Y ZERO INTERCEPT =	193.77				

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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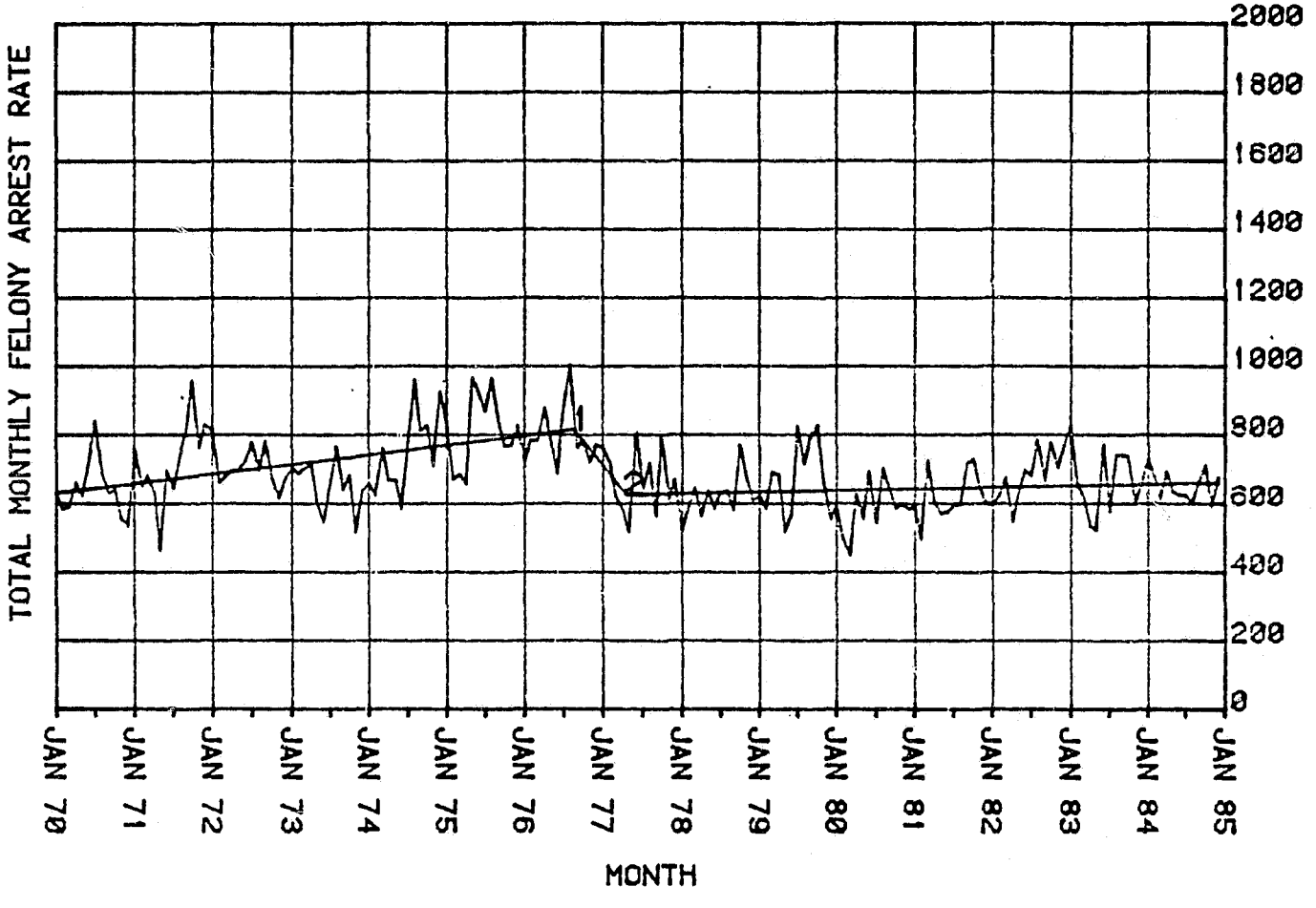
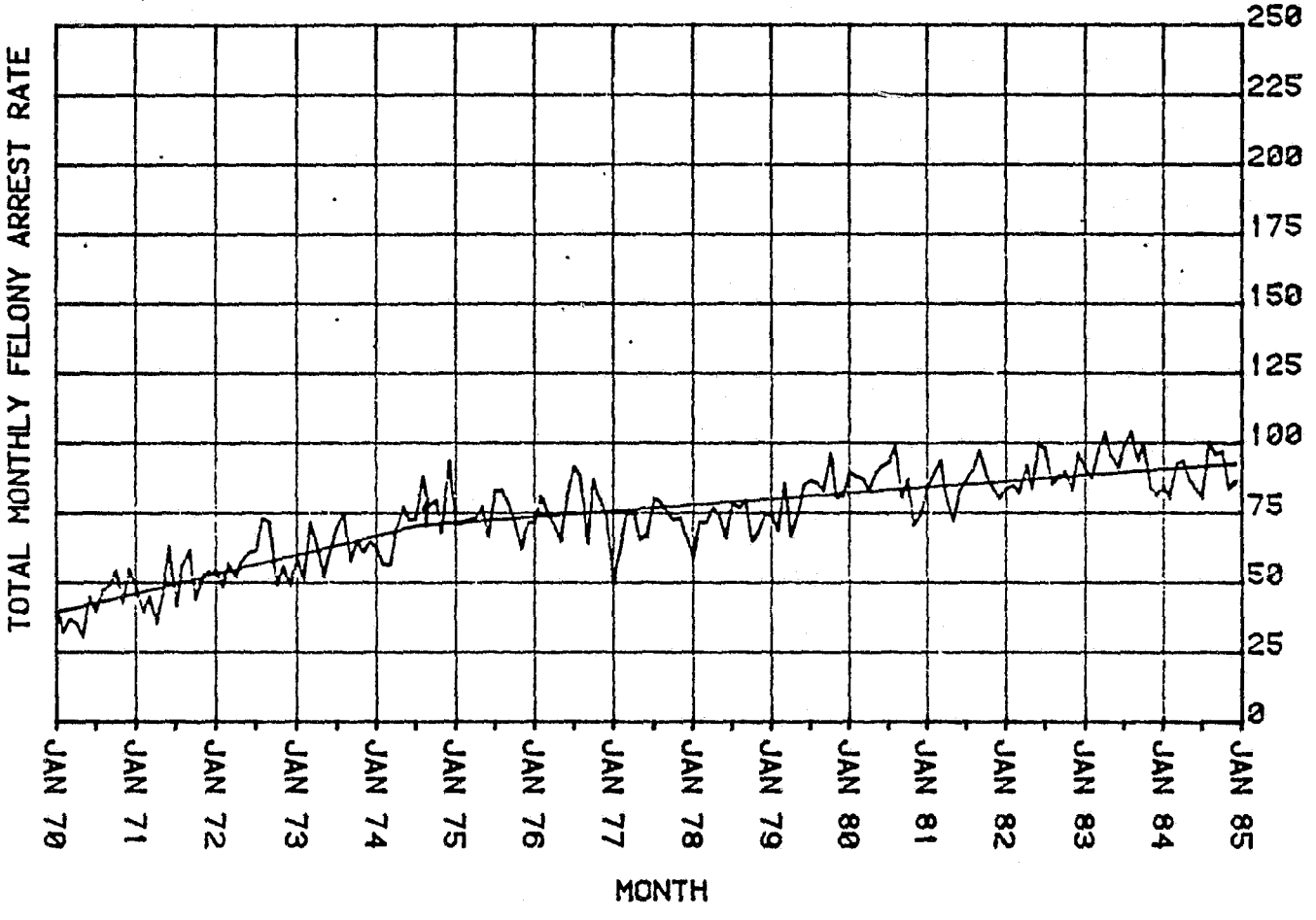


FIRST SLOPE =	2.31
Y ZERO INTERCEPT =	630.77
SECOND SLOPE =	-23.79
Y ZERO INTERCEPT =	2732.05
THIRD SLOPE =	0.40
Y ZERO INTERCEPT =	590.94

FIRST TURNING POINT X:	8/76
Y:	816.56
SECOND TURNING POINT X:	4/77
Y:	626.20
PCT SS EXPLAINED =	28.26

FELONY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.58
Y ZERO INTERCEPT =	38.63
SECOND SLOPE =	0.18
Y ZERO INTERCEPT =	60.66

FIRST TURNING POINT X: 7/74
Y: 70.55
PCT SS EXPLAINED = 76.76

FELONY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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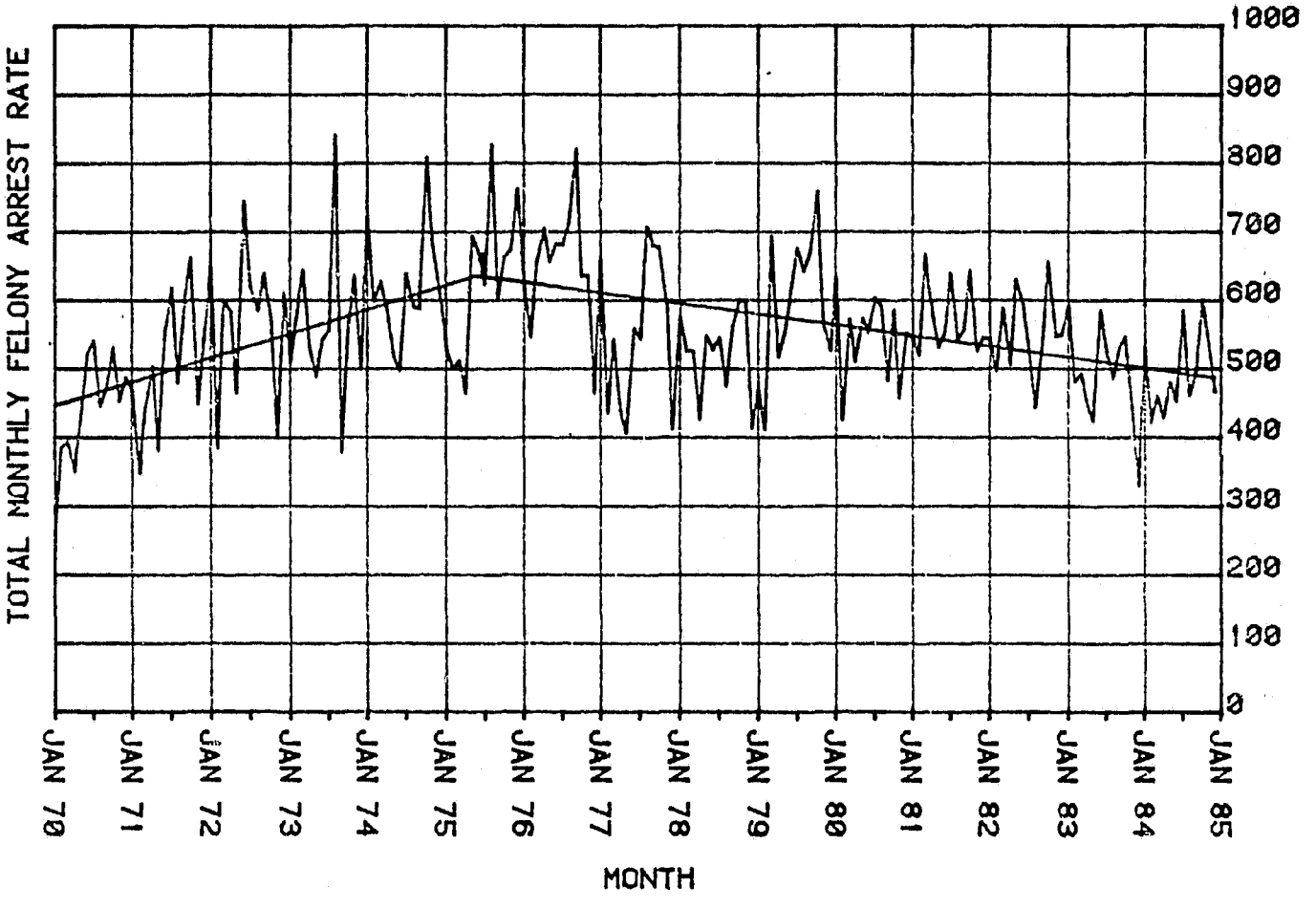
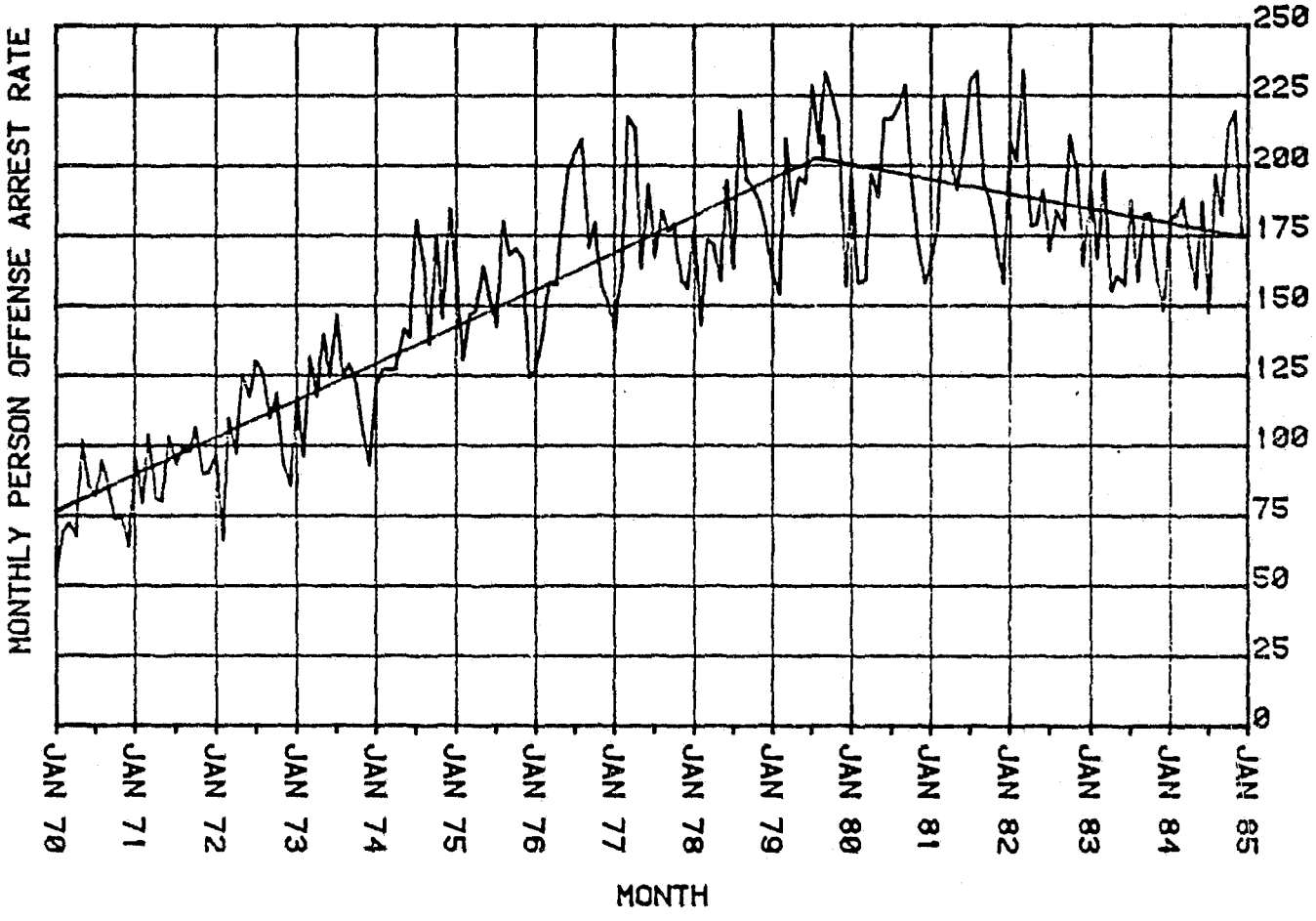


FIRST SLOPE =	2.93
Y ZERO INTERCEPT =	444.08
SECOND SLOPE =	-1.30
Y ZERO INTERCEPT =	721.07

FIRST TURNING POINT X: 5/75
Y: 636.12
PCT SS EXPLAINED = 23.95

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	1.10
Y ZERO INTERCEPT =	75.56
SECOND SLOPE =	-0.43
Y ZERO INTERCEPT =	252.75

FIRST TURNING POINT X: 7/79
Y: 202.57
PCT SS EXPLAINED = 77.45

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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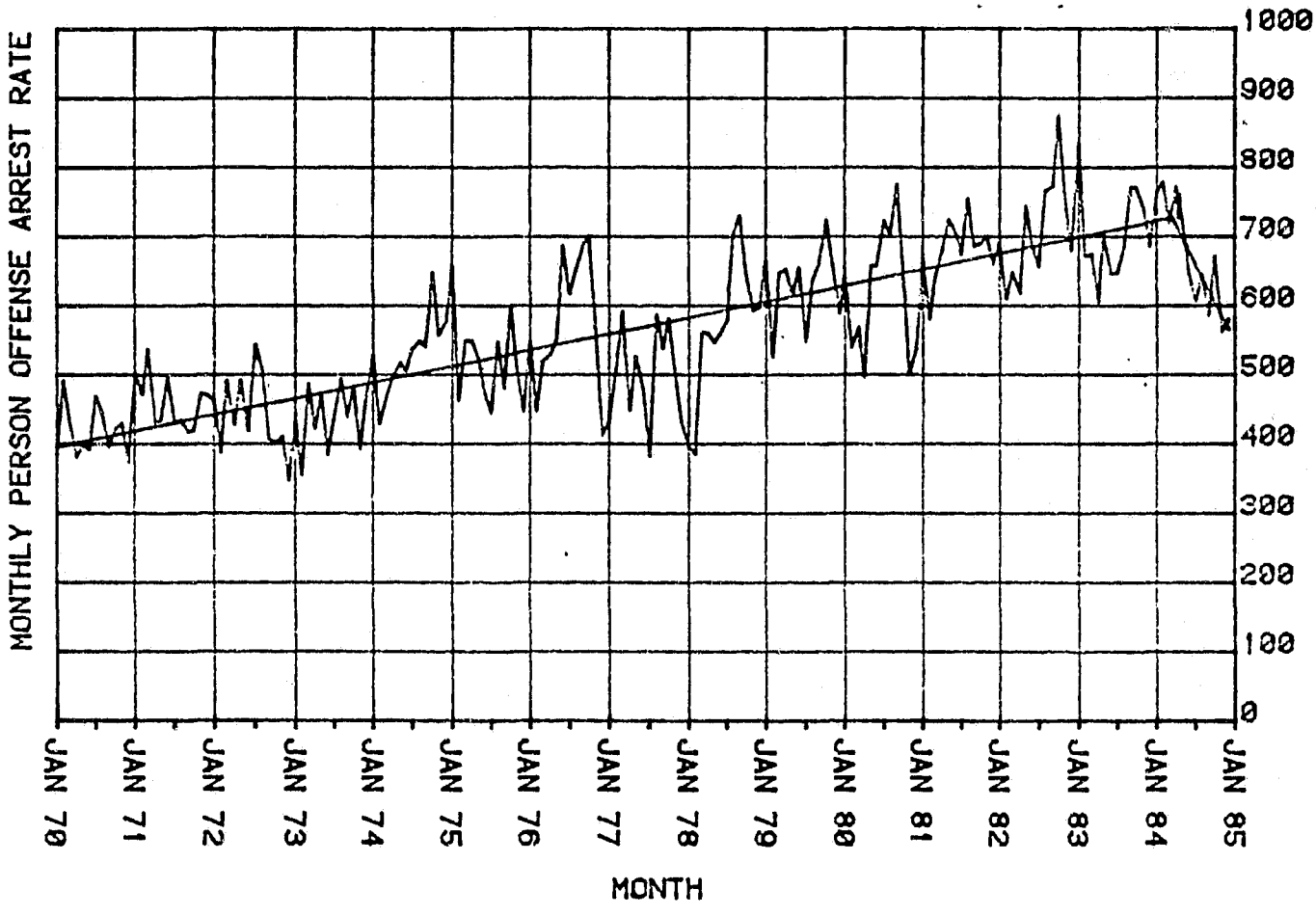
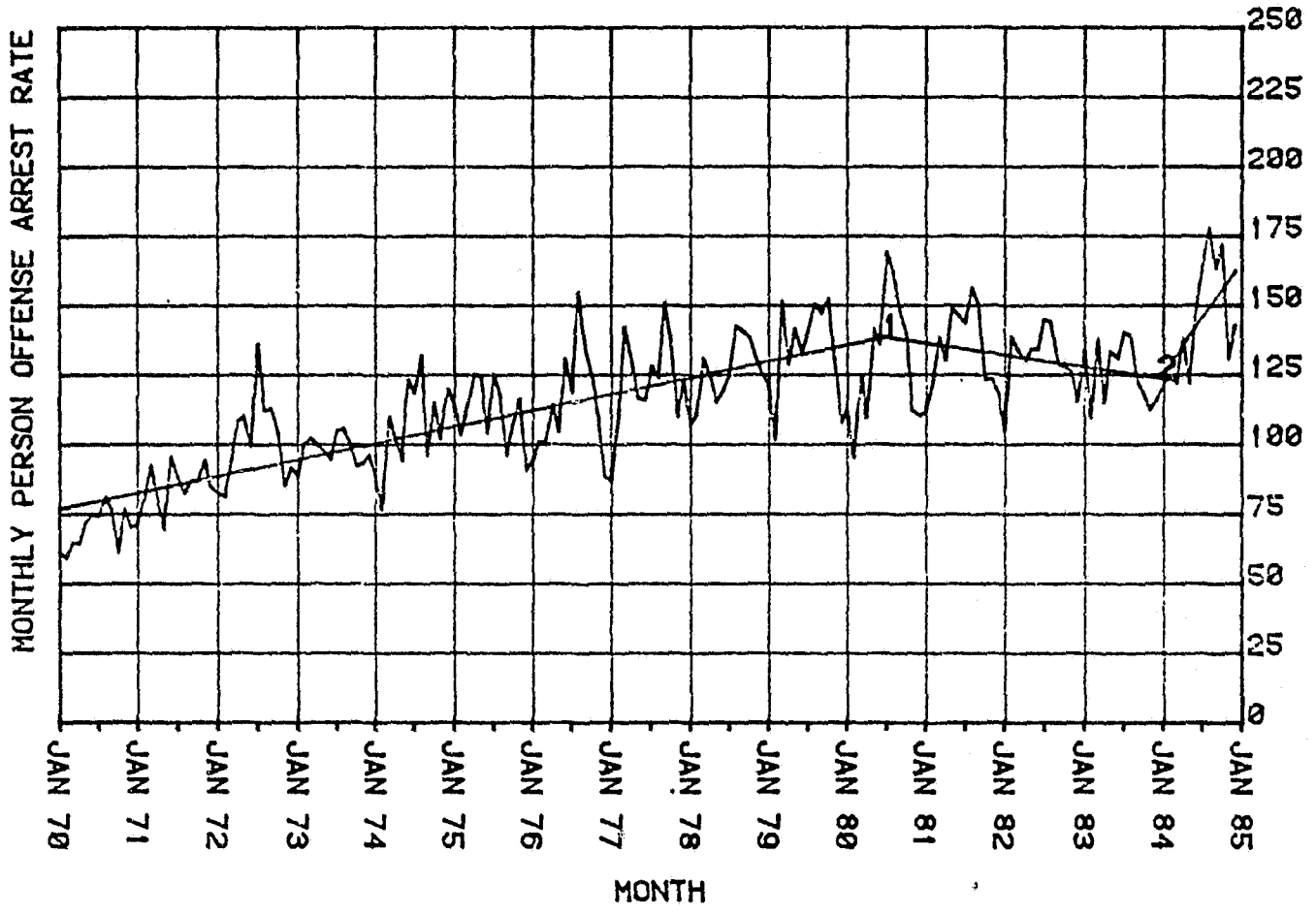


FIRST SLOPE =	1.95	FIRST TURNING POINT X:	3/84
Y ZERO INTERCEPT =	393.58	Y:	727.29
SECOND SLOPE =	-18.95	PCT SS EXPLAINED =	66.87
Y ZERO INTERCEPT =	3976.88		

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.49	FIRST TURNING POINT X:	6/80
Y ZERO INTERCEPT =	76.61	Y:	138.71
SECOND SLOPE =	-0.36	SECOND TURNING POINT X:	12/83
Y ZERO INTERCEPT =	184.06	Y:	123.65
THIRD SLOPE =	3.37	PCT SS EXPLAINED =	65.76
Y ZERO INTERCEPT =	-444.32		

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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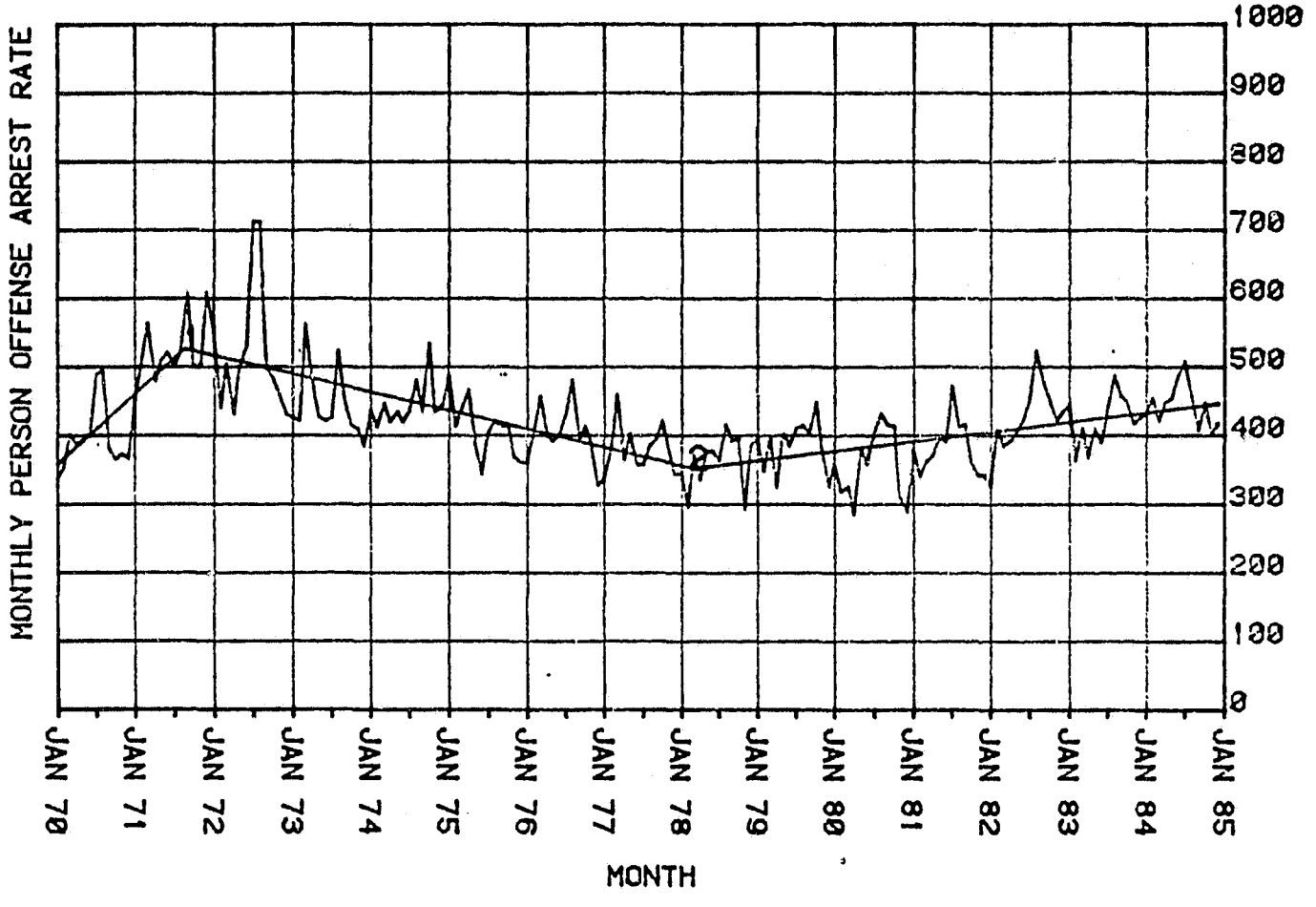

FIRST SLOPE =	8.61
Y ZERO INTERCEPT =	349.65
SECOND SLOPE =	-2.24
Y ZERO INTERCEPT =	572.00
THIRD SLOPE =	1.16
Y ZERO INTERCEPT =	236.75

FIRST TURNING POINT X:	8/71
Y:	526.06
SECOND TURNING POINT X:	2/78
Y:	351.26
PCT SS EXPLAINED =	47.90

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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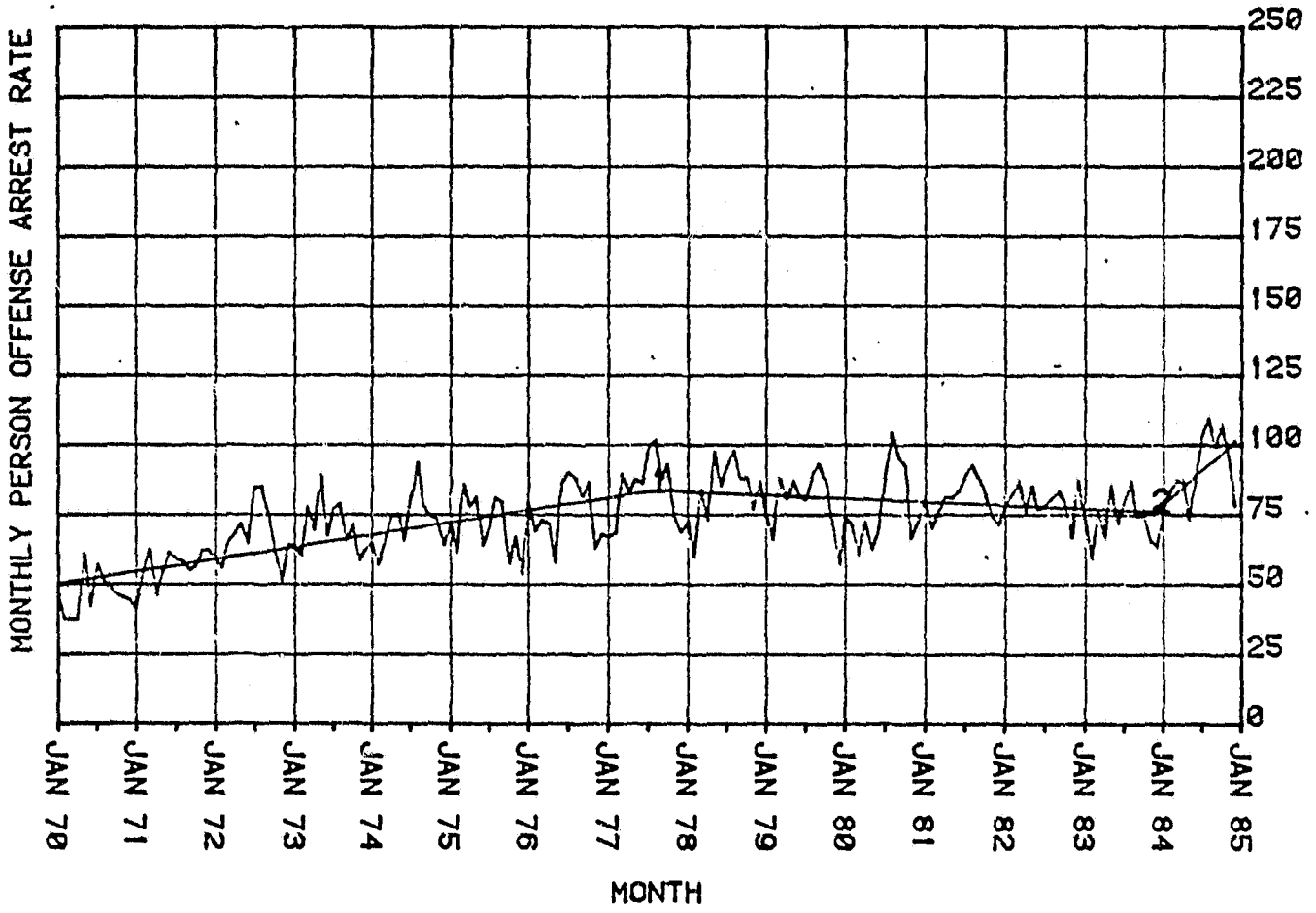

FIRST SLOPE =	0.37	FIRST TURNING POINT	X:	7/77
Y ZERO INTERCEPT =	50.05		Y:	83.79
SECOND SLOPE =	-0.11	SECOND TURNING POINT	X:	11/83
Y ZERO INTERCEPT =	93.40		Y:	75.80
THIRD SLOPE =	2.04	PCT SS EXPLAINED =		52.76
Y ZERO INTERCEPT =	-265.07			

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
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NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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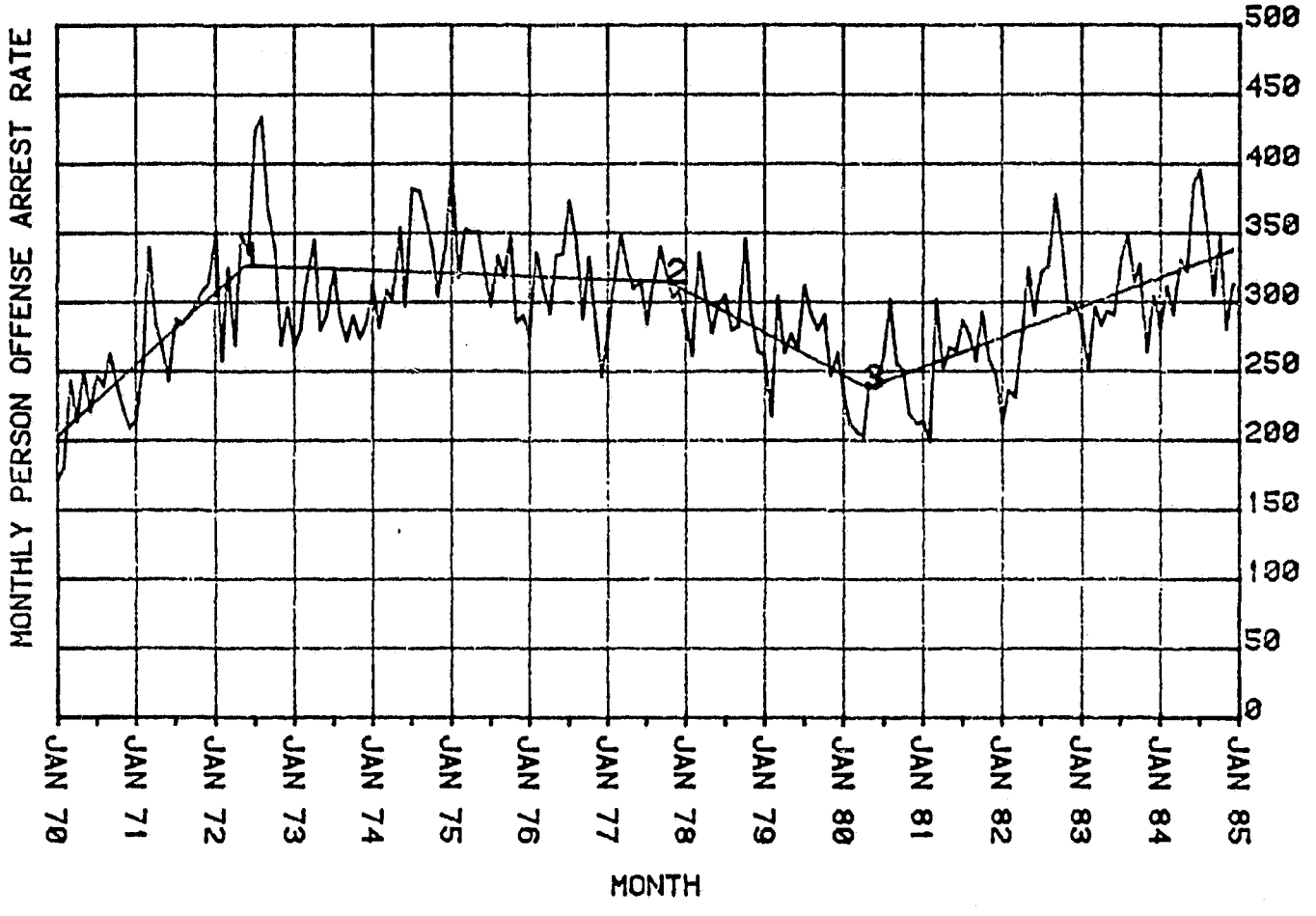

FIRST SLOPE =	4.31	FIRST TURNING POINT	X: 5/72
Y ZERO INTERCEPT =	199.27		Y: 326.51
SECOND SLOPE =	-0.19	SECOND TURNING POINT	X: 10/77
Y ZERO INTERCEPT =	332.03		Y: 314.35
THIRD SLOPE =	-2.54	THIRD TURNING POINT	X: 4/80
Y ZERO INTERCEPT =	554.36		Y: 238.16
FOURTH SLOPE =	1.79	PCT SS EXPLAINED =	47.91
Y ZERO INTERCEPT =	14.84		

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
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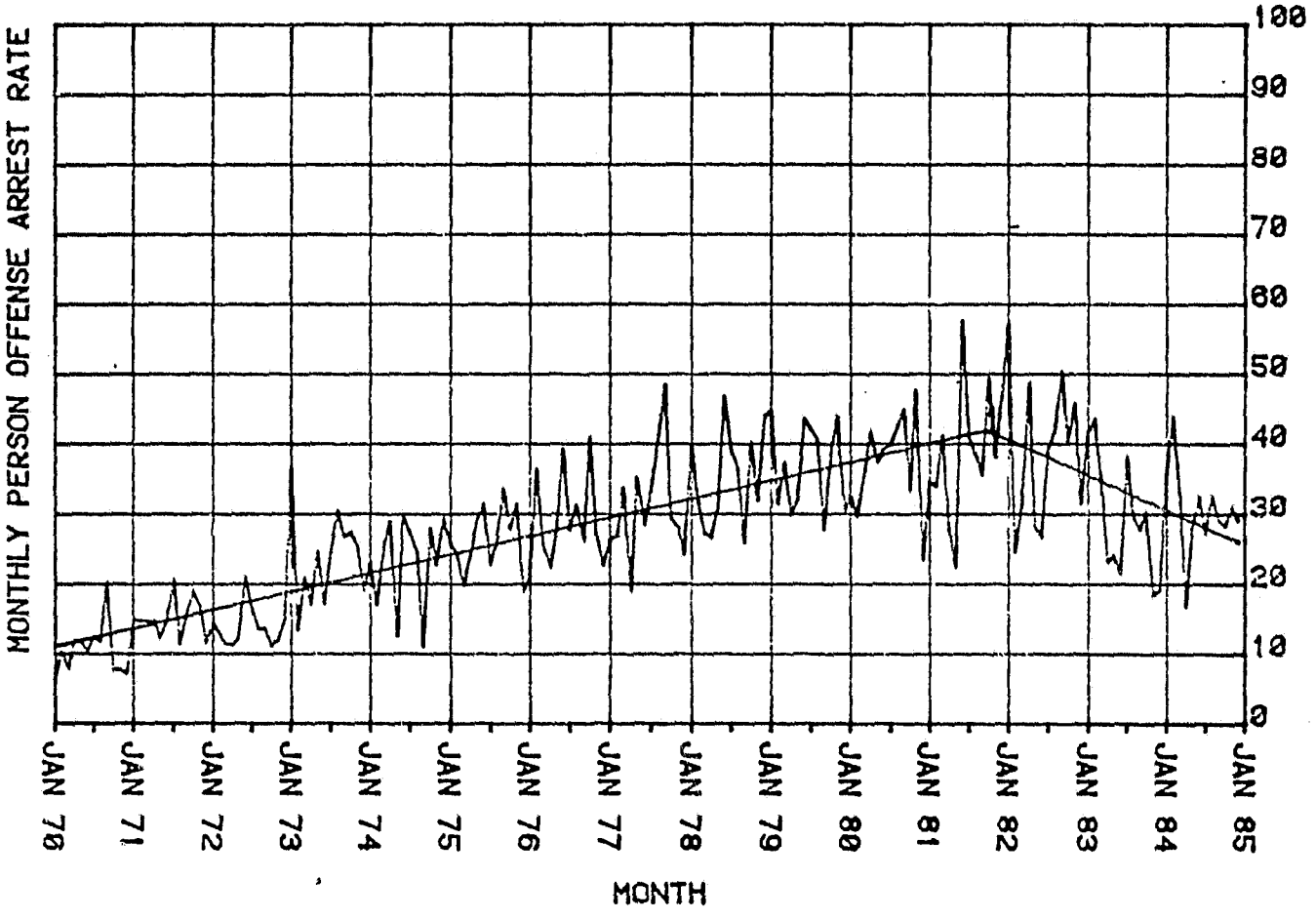

FIRST SLOPE =	0.22
Y ZERO INTERCEPT =	10.77
SECOND SLOPE =	-0.42
Y ZERO INTERCEPT =	100.80

FIRST TURNING POINT X: 9/81
Y: 41.93
PCT SS EXPLAINED = 63.23

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
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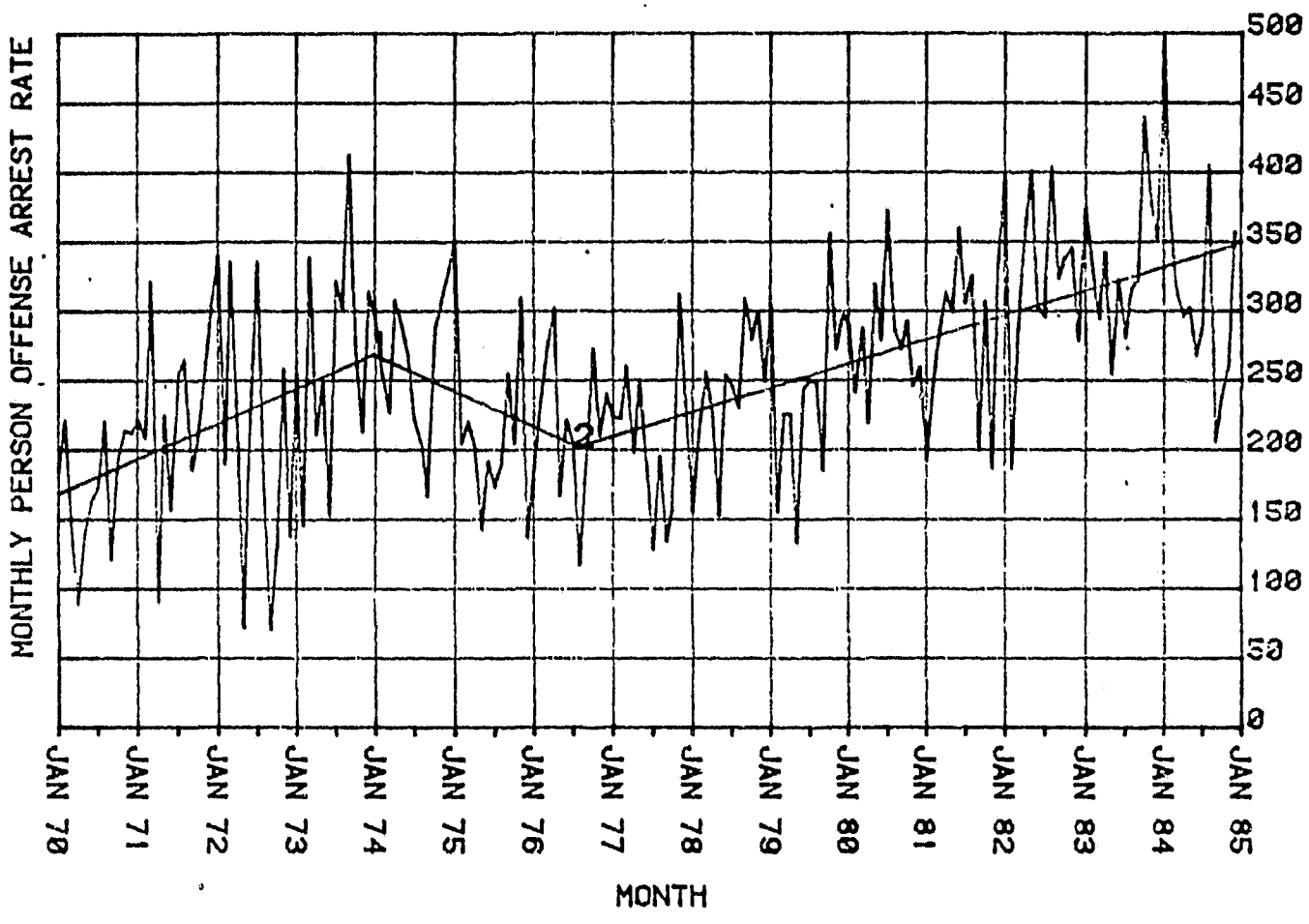

FIRST SLOPE =	2.11	FIRST TURNING POINT X:	12/73
Y ZERO INTERCEPT =	166.08	Y:	268.32
SECOND SLOPDRA	-2.14	SECOND TURNING POINT X:	7/76
Y ZERO INTERCEPT =	372.02	Y:	202.04
THIRD SLOPE =	1.45	PCT SS EXPLAINED =	34.88
Y ZERO INTERCEPT =	86.56		

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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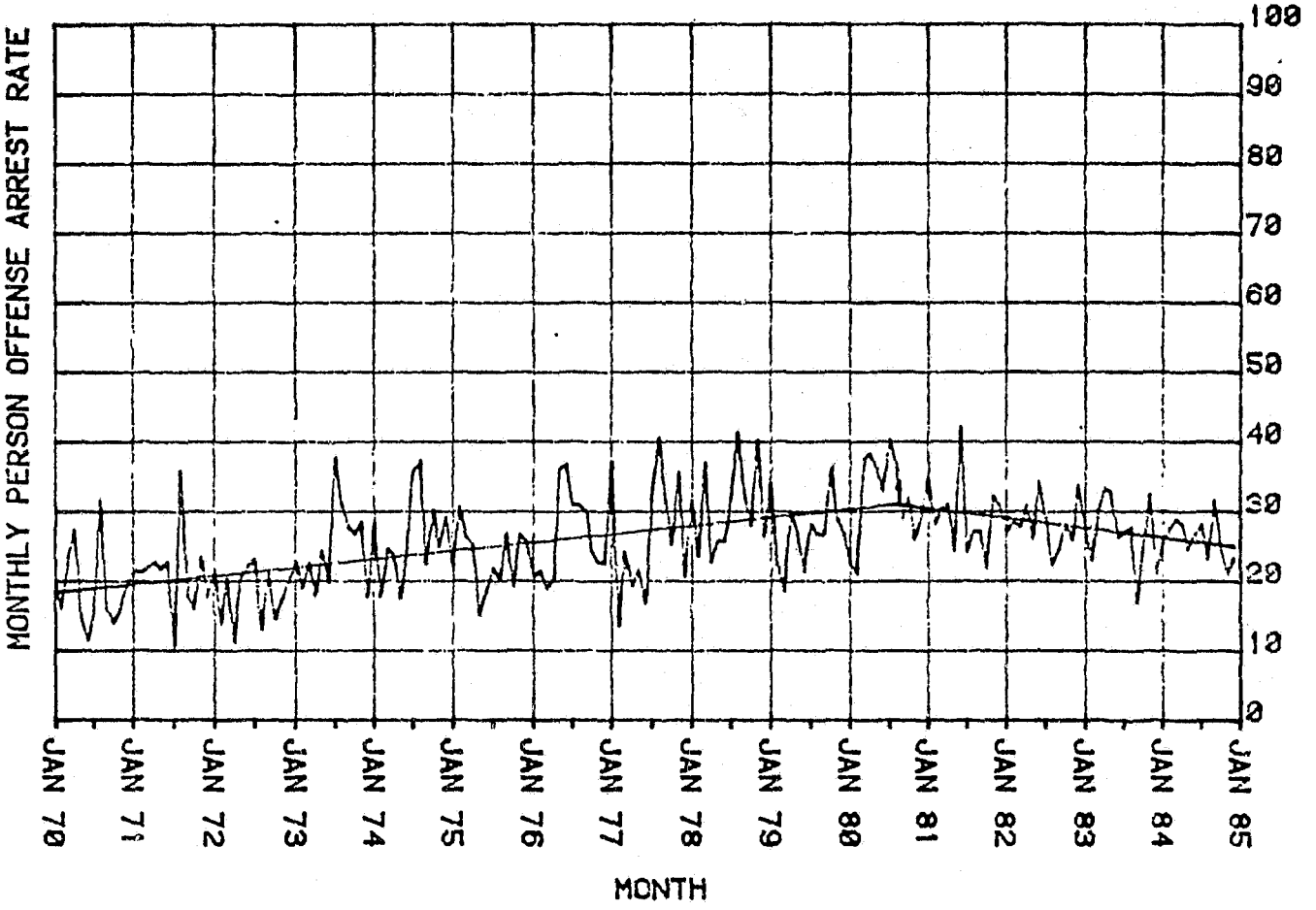

FIRST SLOPE =	0.10	FIRST TURNING POINT X:	7/80
Y ZERO INTERCEPT =	18.33	Y:	31.11
SECOND SLOPE =	-0.12	PCT SS EXPLAINED =	28.99
Y ZERO INTERCEPT =	46.05		

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
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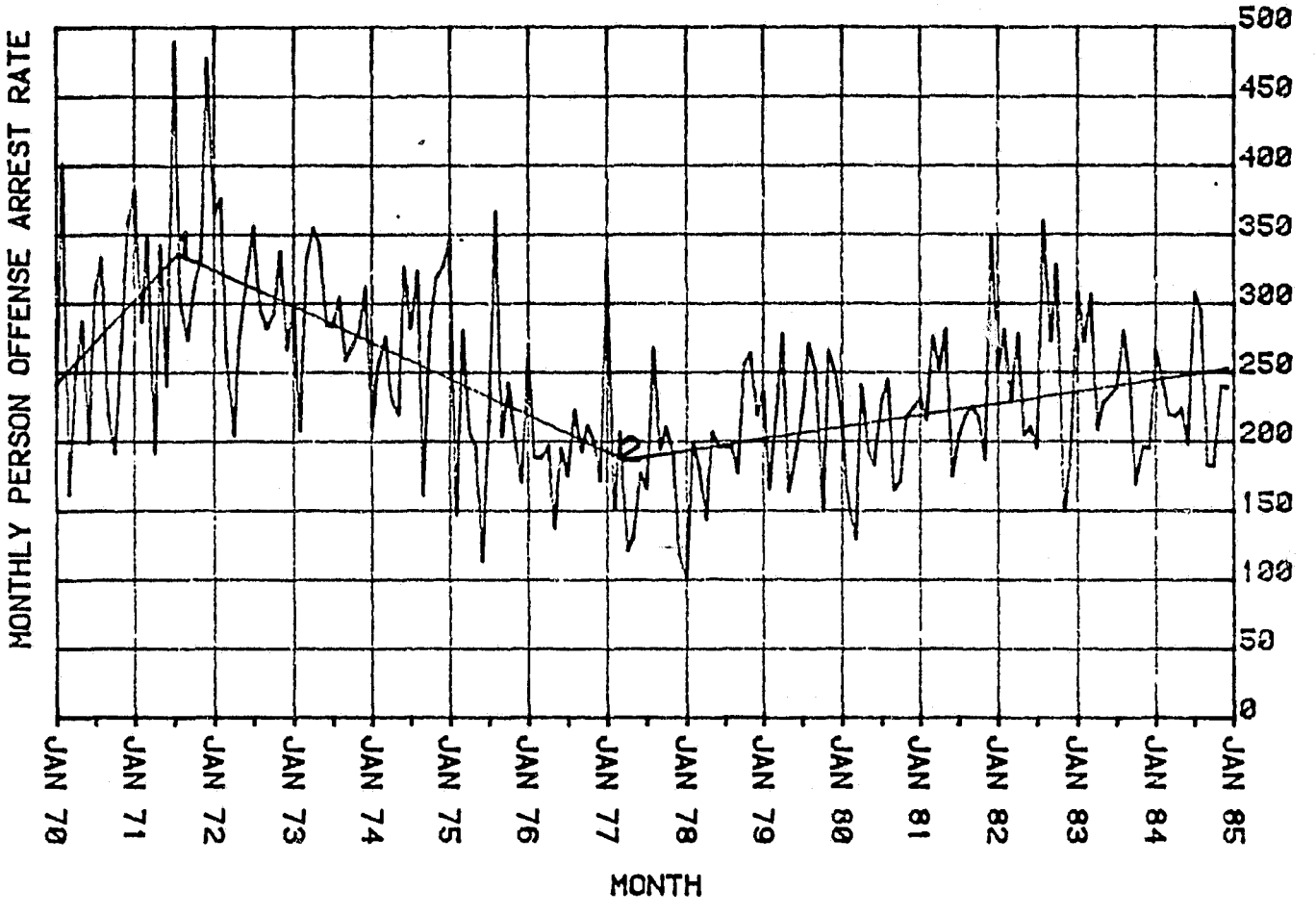

FIRST SLOPE =	5.09	FIRST TURNING POINT X:	7/71
Y ZERO INTERCEPT =	237.18	Y:	336.50
SECOND SLOPE =	-2.21	SECOND TURNING POINT X:	3/77
Y ZERO INTERCEPT =	379.53	Y:	186.46
THIRD SLOPE =	0.72	PCT SS EXPLAINED =	35.68
Y ZERO INTERCEPT =	123.89		

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
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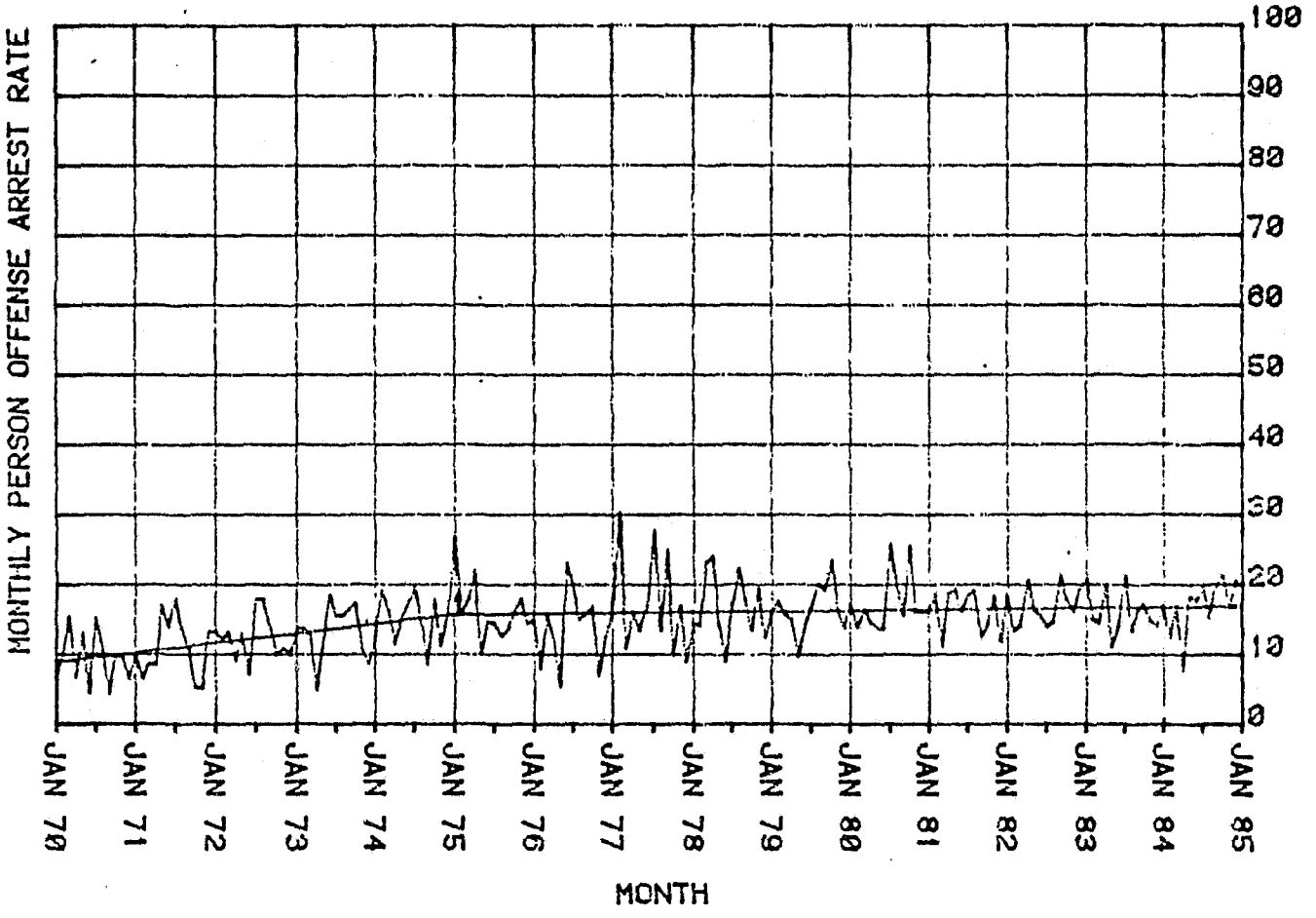
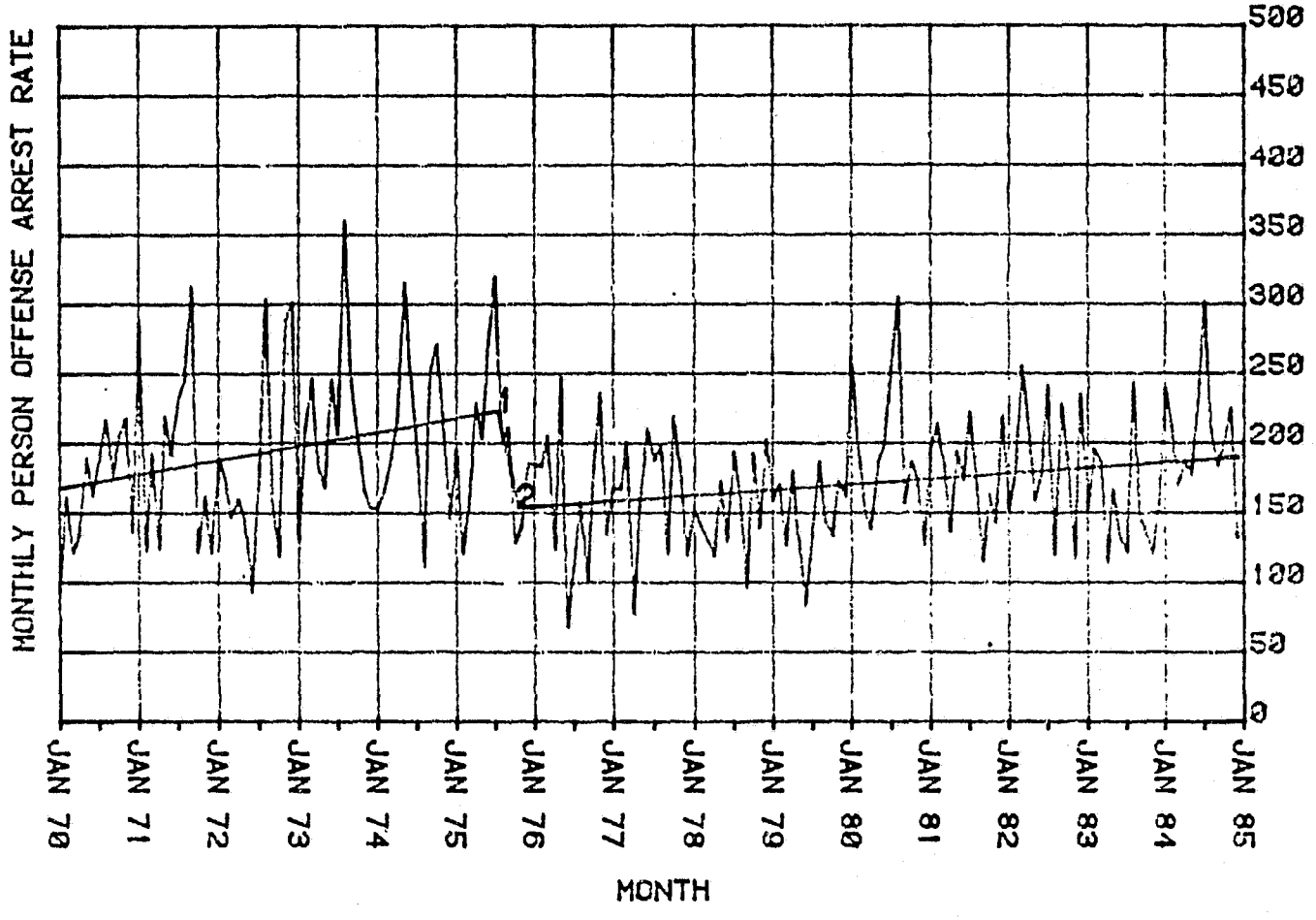
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.11
Y ZERO INTERCEPT =	8.81
SECOND SLOPE =	0.01
Y ZERO INTERCEPT =	15.00

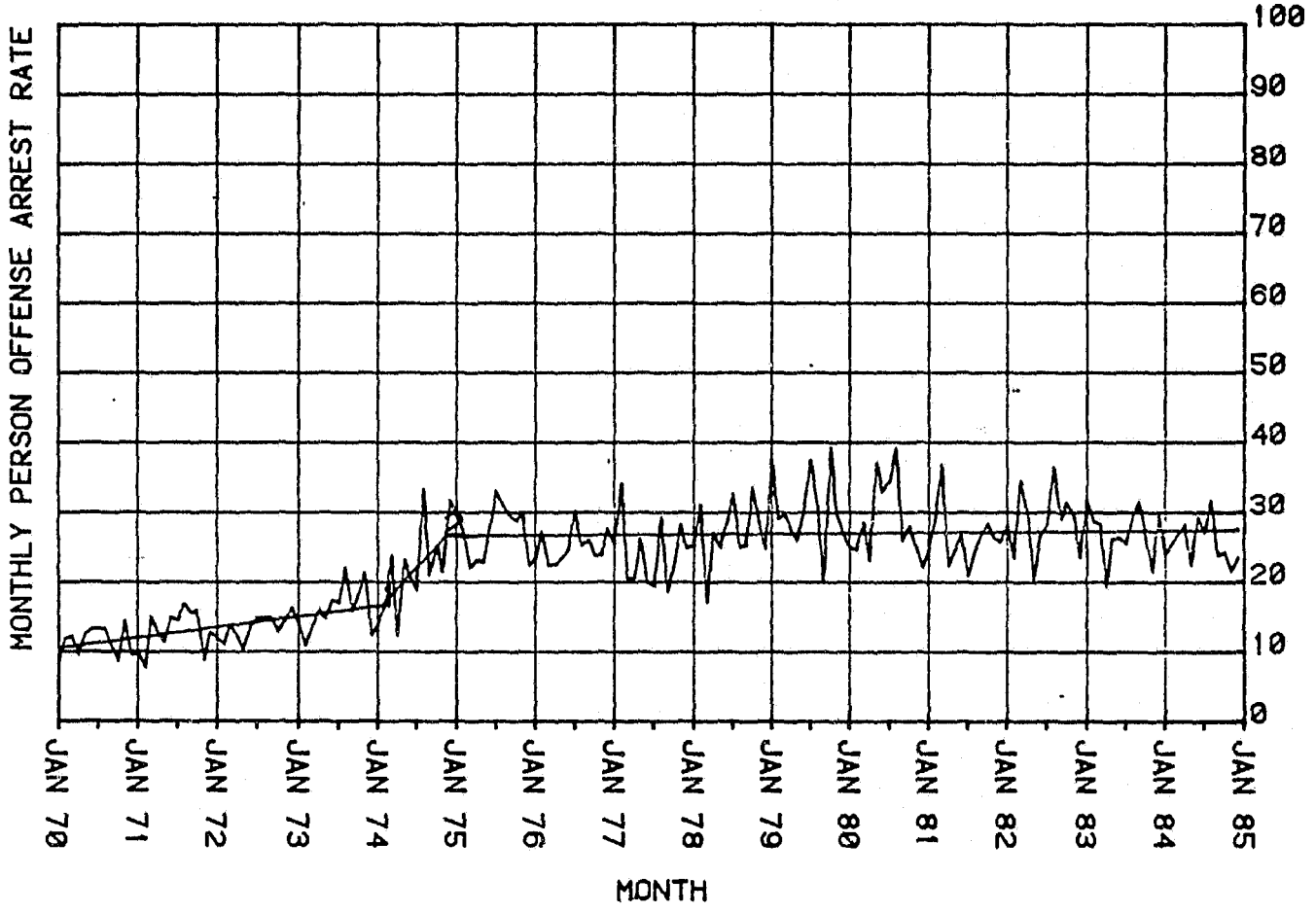
FIRST TURNING POINT X: 12/74
Y: 15.68
PCT SS EXPLAINED = 23.39

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.84	FIRST TURNING POINT X:	7/75
Y ZERO INTERCEPT =	167.01	Y:	223.73
SECOND SLOPE =	-23.20	SECOND TURNING POINT X:	10/75
Y ZERO INTERCEPT =	1789.46	Y:	154.15
THIRD SLOPE =	0.33	PCT SS EXPLAINED =	10.97
Y ZERO INTERCEPT =	131.10		

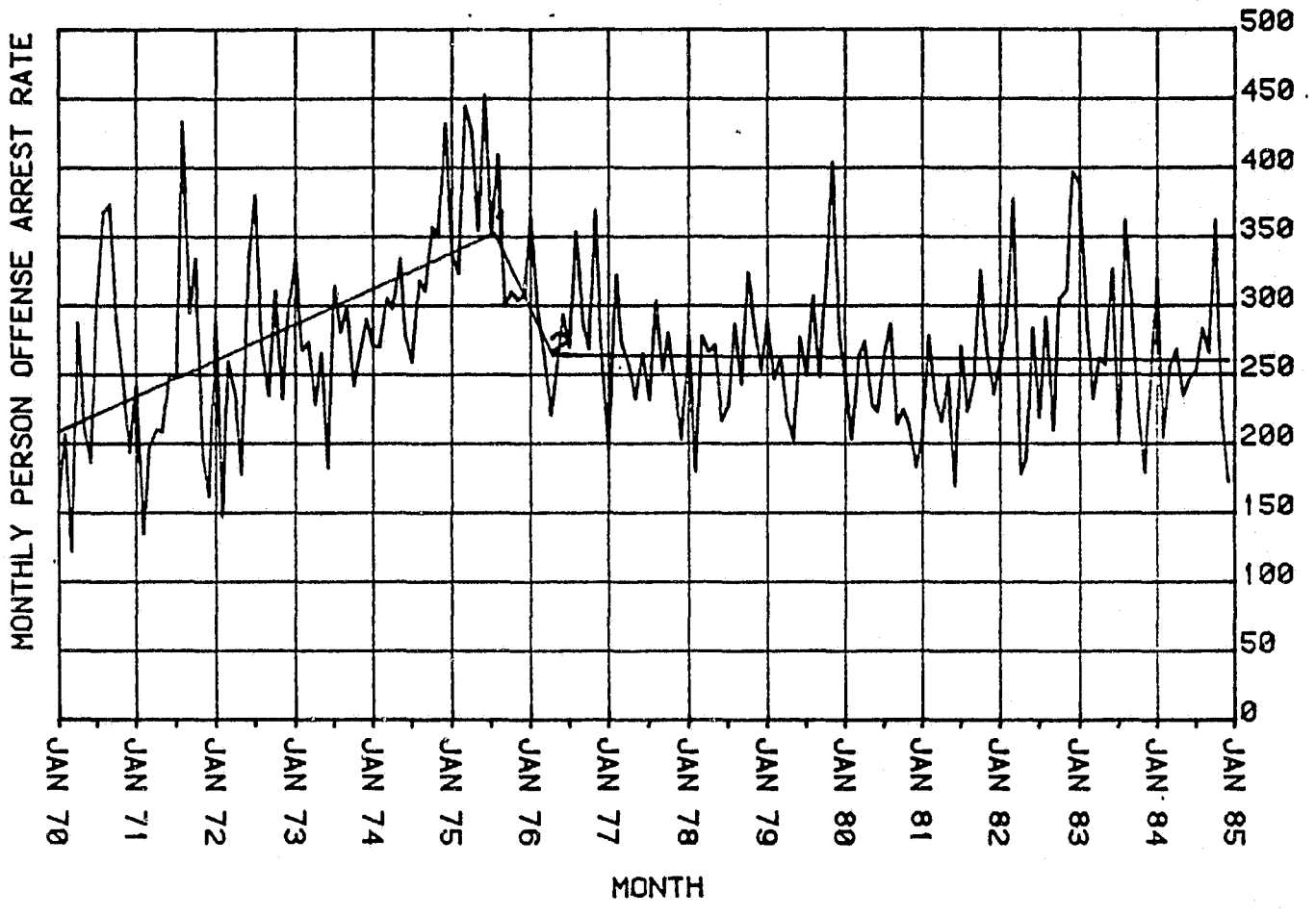
PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.13
Y ZERO INTERCEPT =	10.39
SECOND SLOPE =	0.99
Y ZERO INTERCEPT =	-32.34
THIRD SLOPE =	0.01
Y ZERO INTERCEPT =	26.18

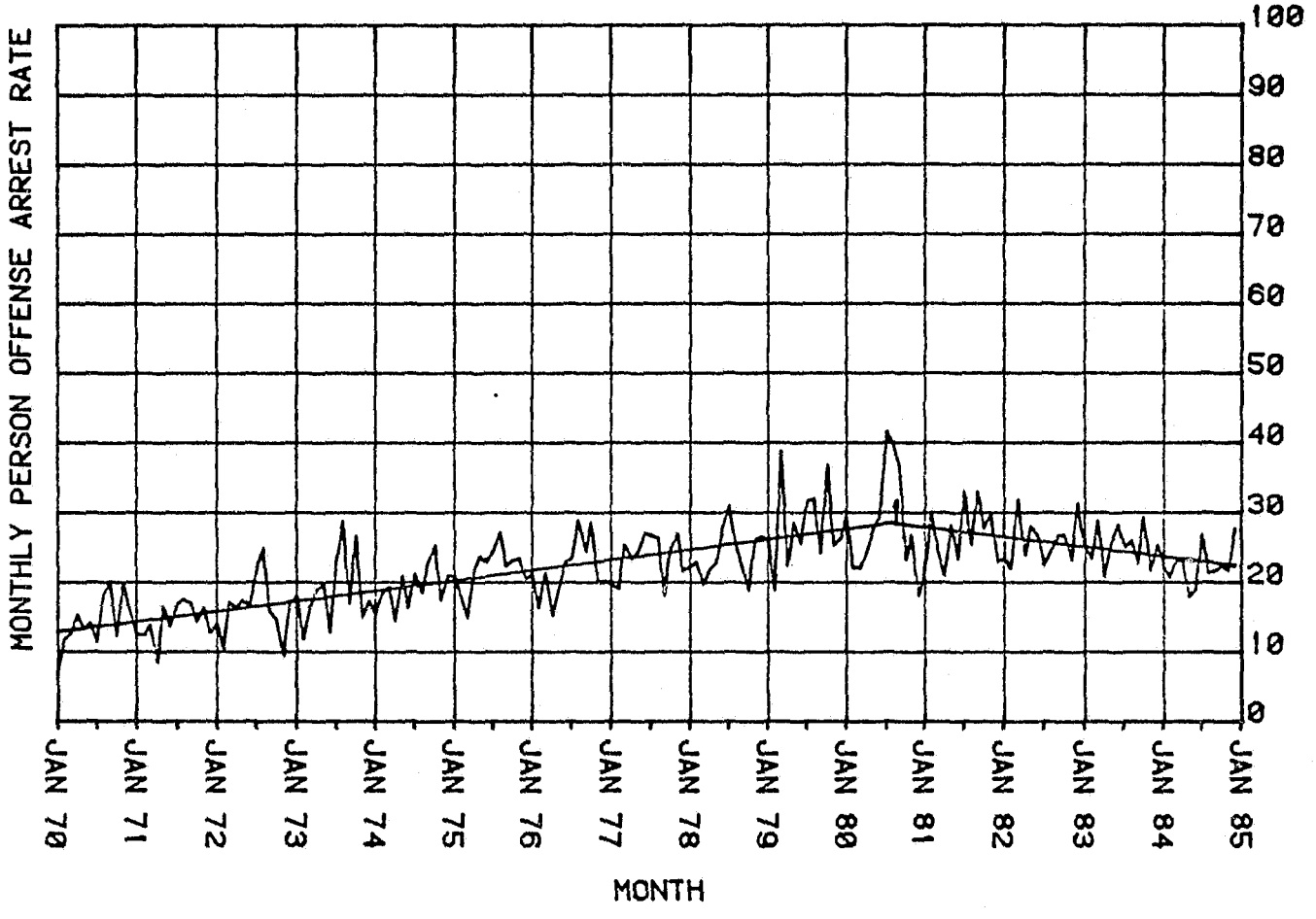
FIRST TURNING POINT X:	1/74
Y:	16.71
SECOND TURNING POINT X:	11/74
Y:	26.62
PCT SS EXPLAINED =	69.16

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	2.16	FIRST TURNING POINT X:	7/75
Y ZERO INTERCEPT =	206.65	Y:	352.71
SECOND SLOPE =	-9.87	SECOND TURNING POINT X:	4/76
Y ZERO INTERCEPT =	1018.64	Y:	263.92
THIRD SLOPE =	-0.04	PCT SS EXPLAINED =	21.98
Y ZERO INTERCEPT =	267.08		

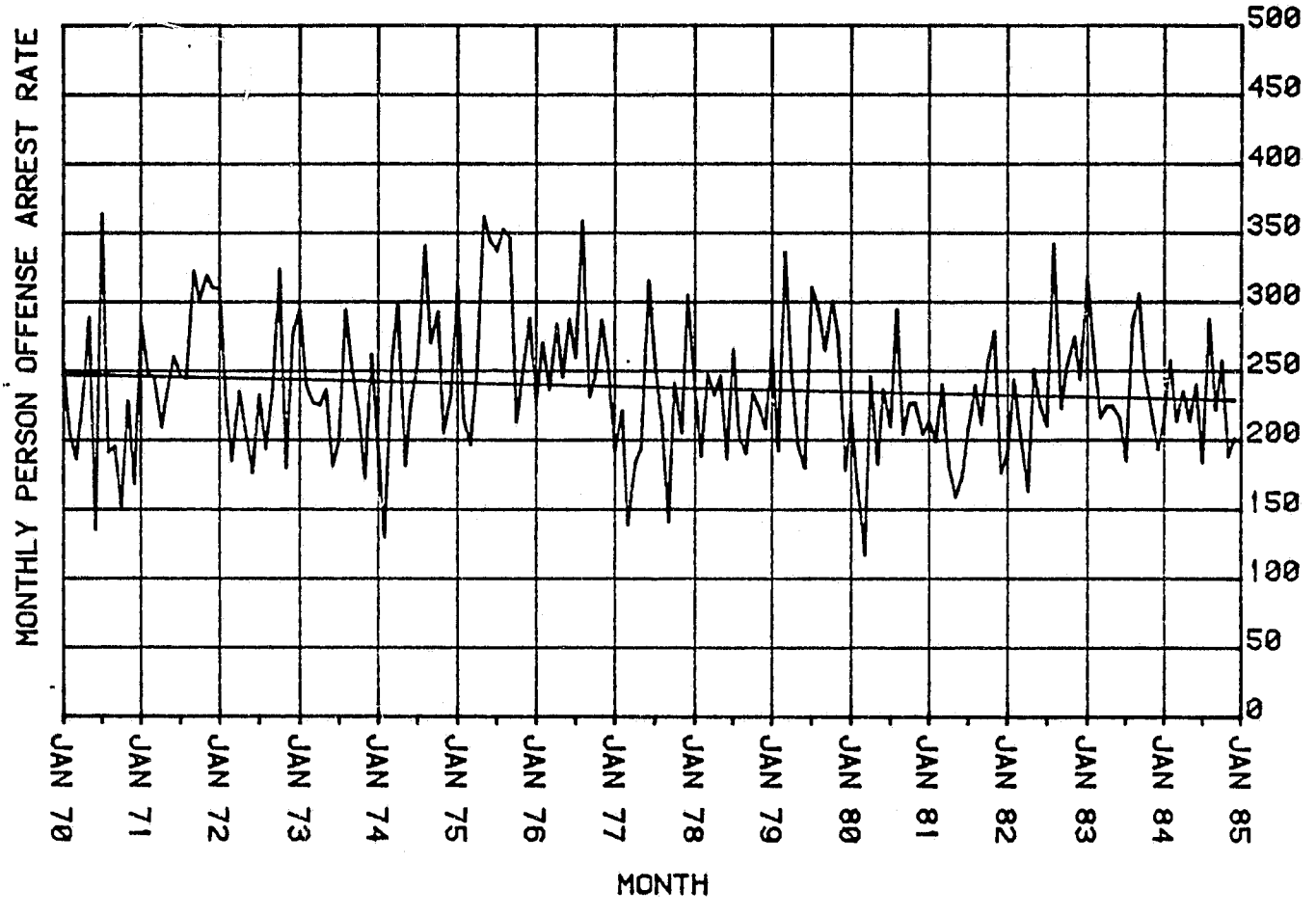
PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.12
Y ZERO INTERCEPT =	12.80
SECOND SLOPE =	-0.12
Y ZERO INTERCEPT =	43.29

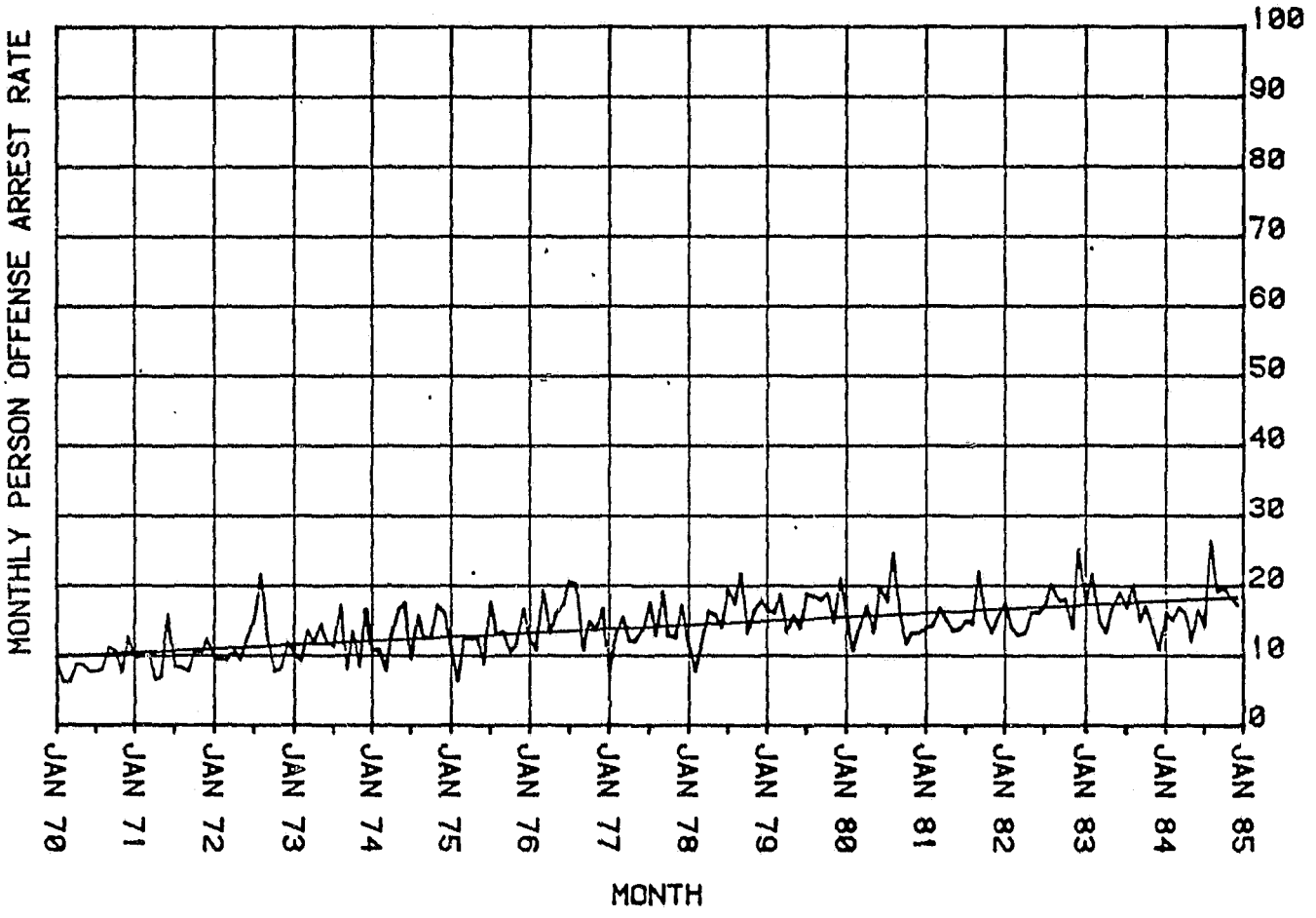
FIRST TURNING POINT X: 7/80
Y: 28.49
PCT SS EXPLAINED = 55.98

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = -0.10 PCT SS EXPLAINED = 1.16
Y ZERO INTERCEPT = 247.14

PERSON ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.05 PCT SS EXPLAINED = 38.20
Y ZERO INTERCEPT = 9.79

PERSON ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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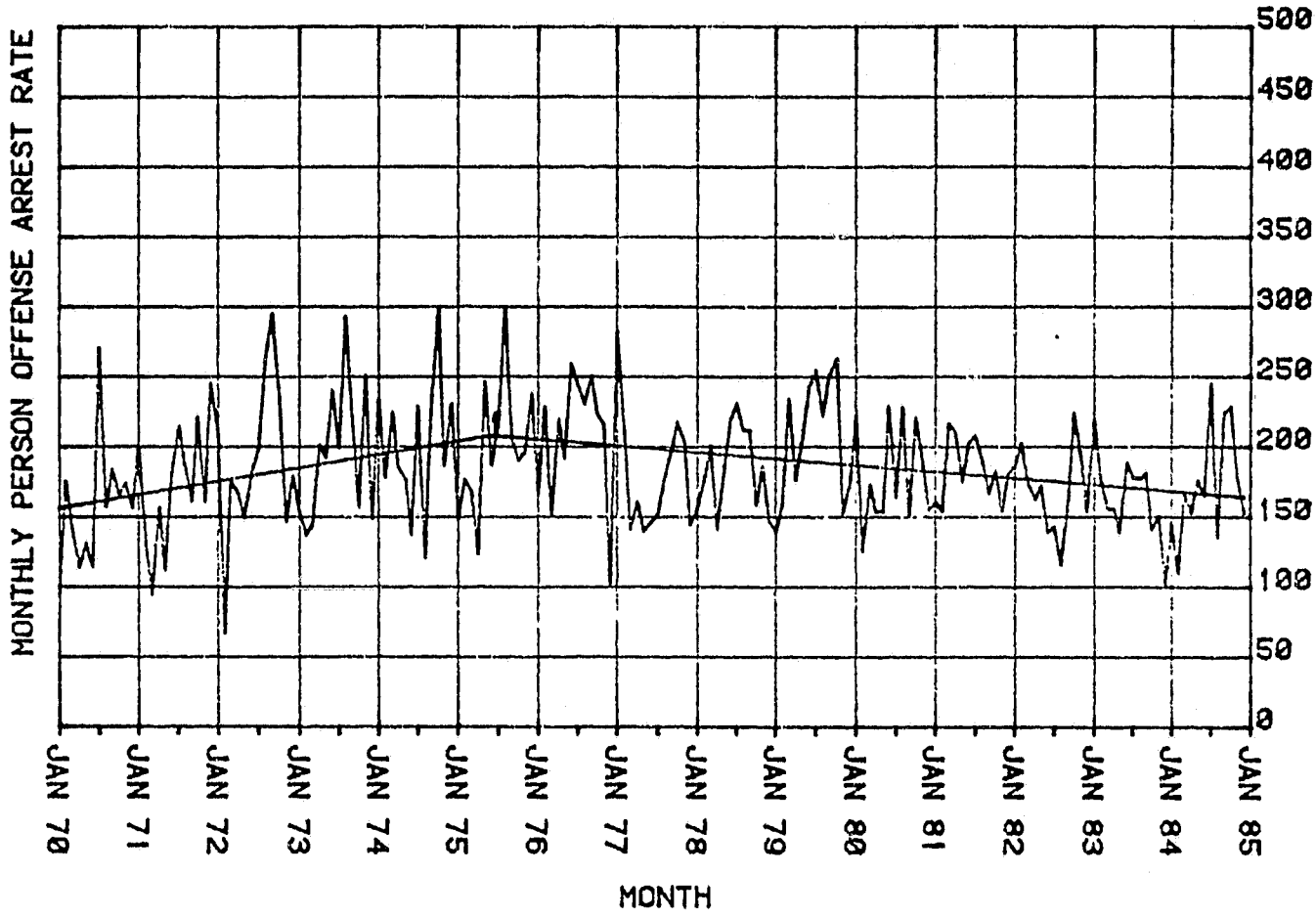
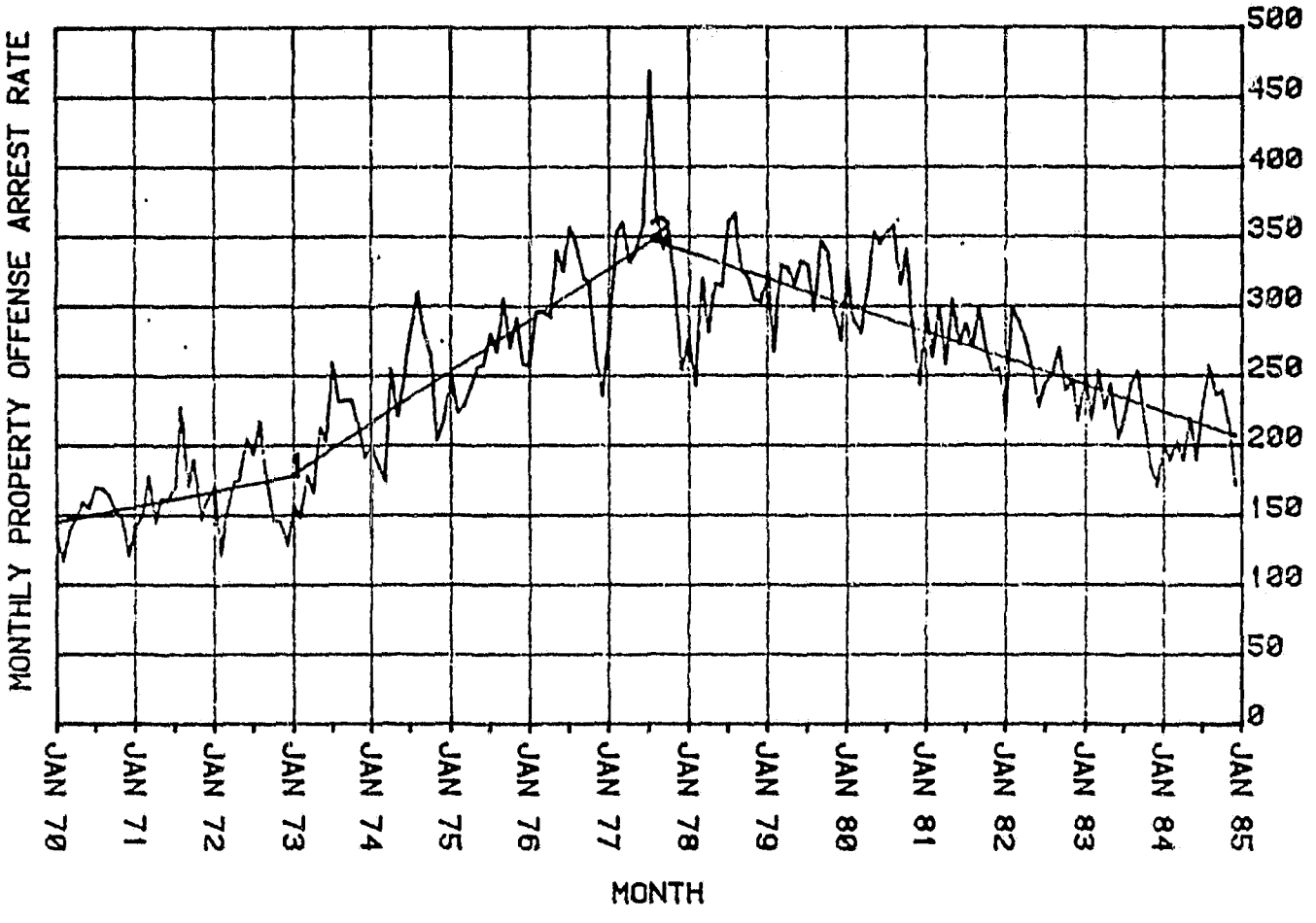


FIRST SLOPE =	0.80
Y ZERO INTERCEPT =	155.85
SECOND SLOPE =	-0.39
Y ZERO INTERCEPT =	233.19

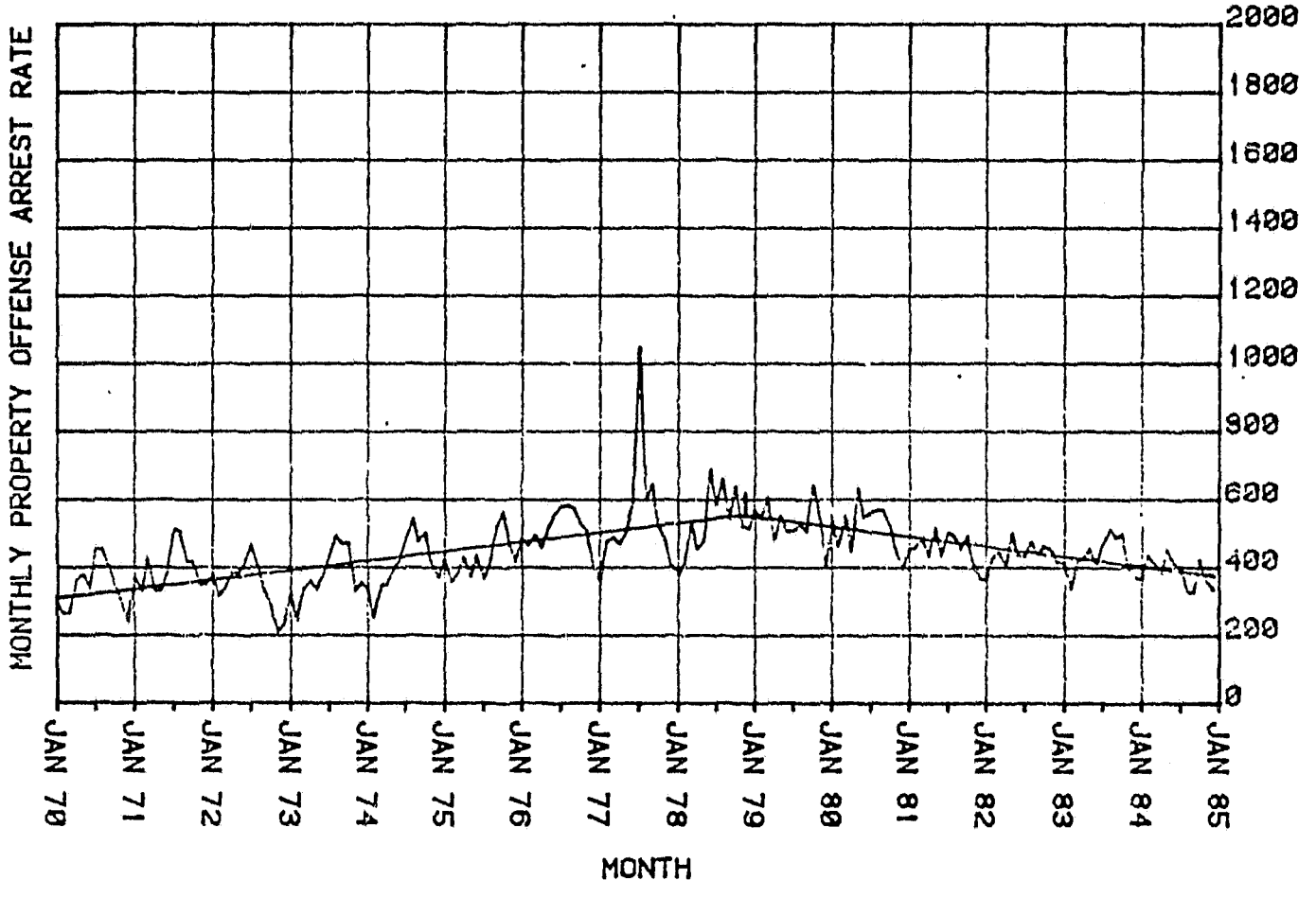
FIRST TURNING POINT X: 5/75
Y: 207.93
PCT SS EXPLAINED = 10.15

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



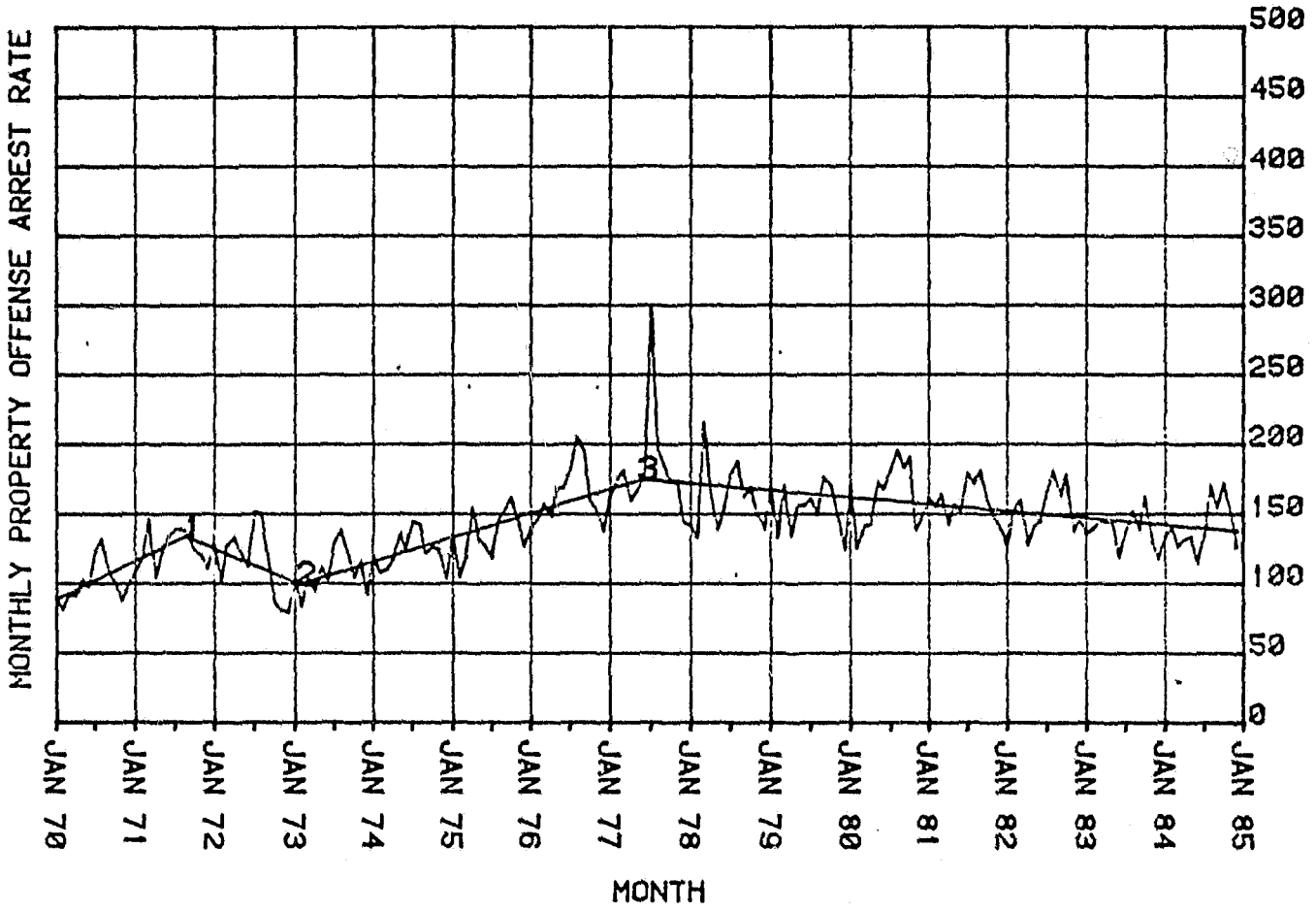
FIRST SLOPE =	0.91	FIRST TURNING POINT	X:	12/72
Y ZERO INTERCEPT =	144.64		Y:	177.96
SECOND SLOPE =	3.08	SECOND TURNING POINT	X:	7/77
Y ZERO INTERCEPT =	65.59		Y:	347.28
THIRD SLOPE =	-1.59	PCT SS EXPLAINED =		78.98
Y ZERO INTERCEPT =	492.42			

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	2.31	FIRST TURNING POINT X:	10/78
Y ZERO INTERCEPT =	307.19	Y:	553.32
SECOND SLOPE =	-2.40	PCT SS EXPLAINED =	42.09
Y ZERO INTERCEPT =	809.17		

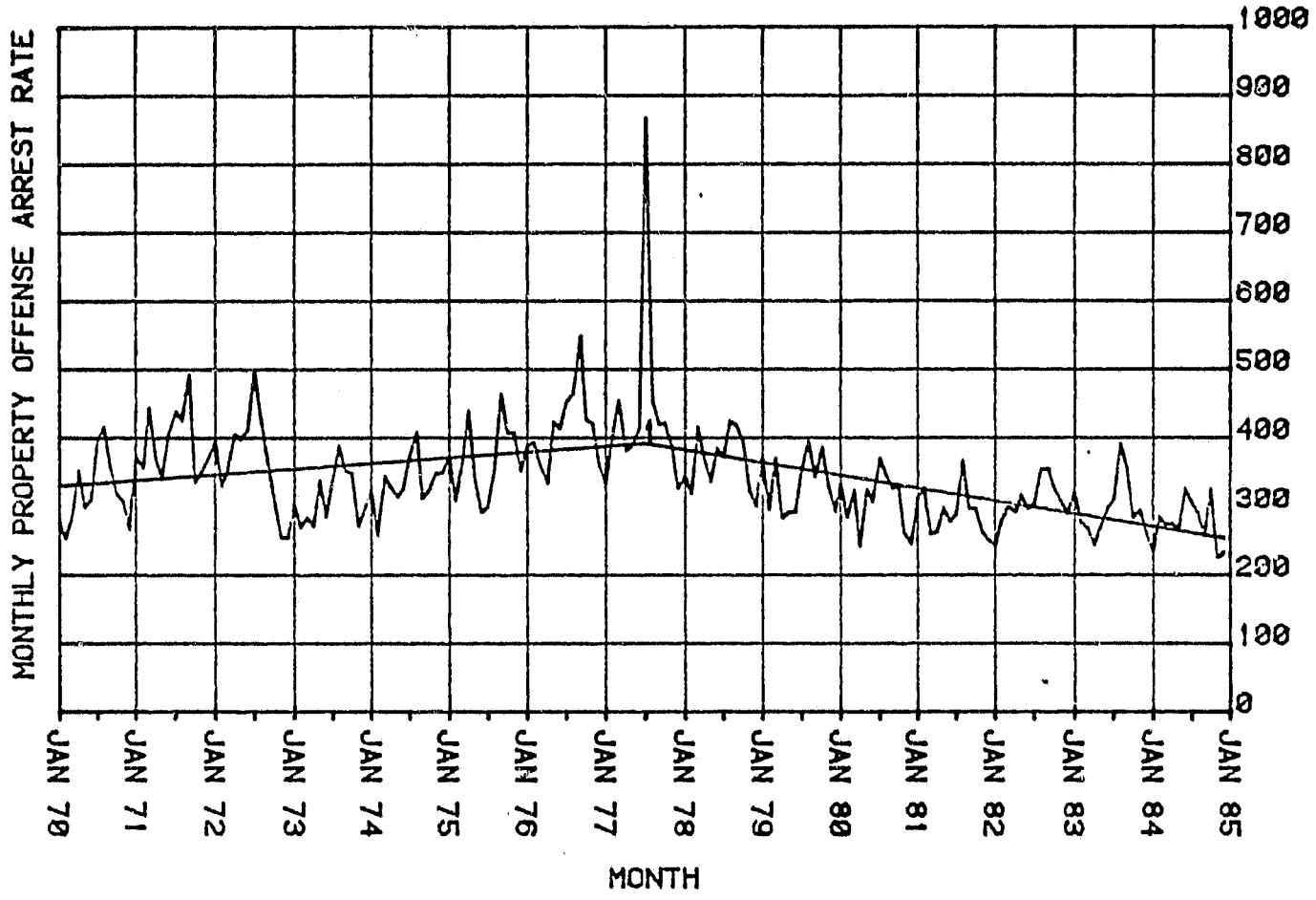
PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	2.35	
Y ZERO INTERCEPT =	86.15	
SECOND SLOPE =	-2.07	
Y ZERO INTERCEPT =	176.81	
THIRD SLOPE =	1.46	
Y ZERO INTERCEPT =	44.39	
FOURTH SLOPE =	-0.42	
Y ZERO INTERCEPT =	212.07	

FIRST TURNING POINT	X: 8/71
	Y: 134.31
SECOND TURNING POINT	X: 1/73
	Y: 99.06
THIRD TURNING POINT	X: 5/77
	Y: 174.87
PCT SS EXPLAINED =	56.84

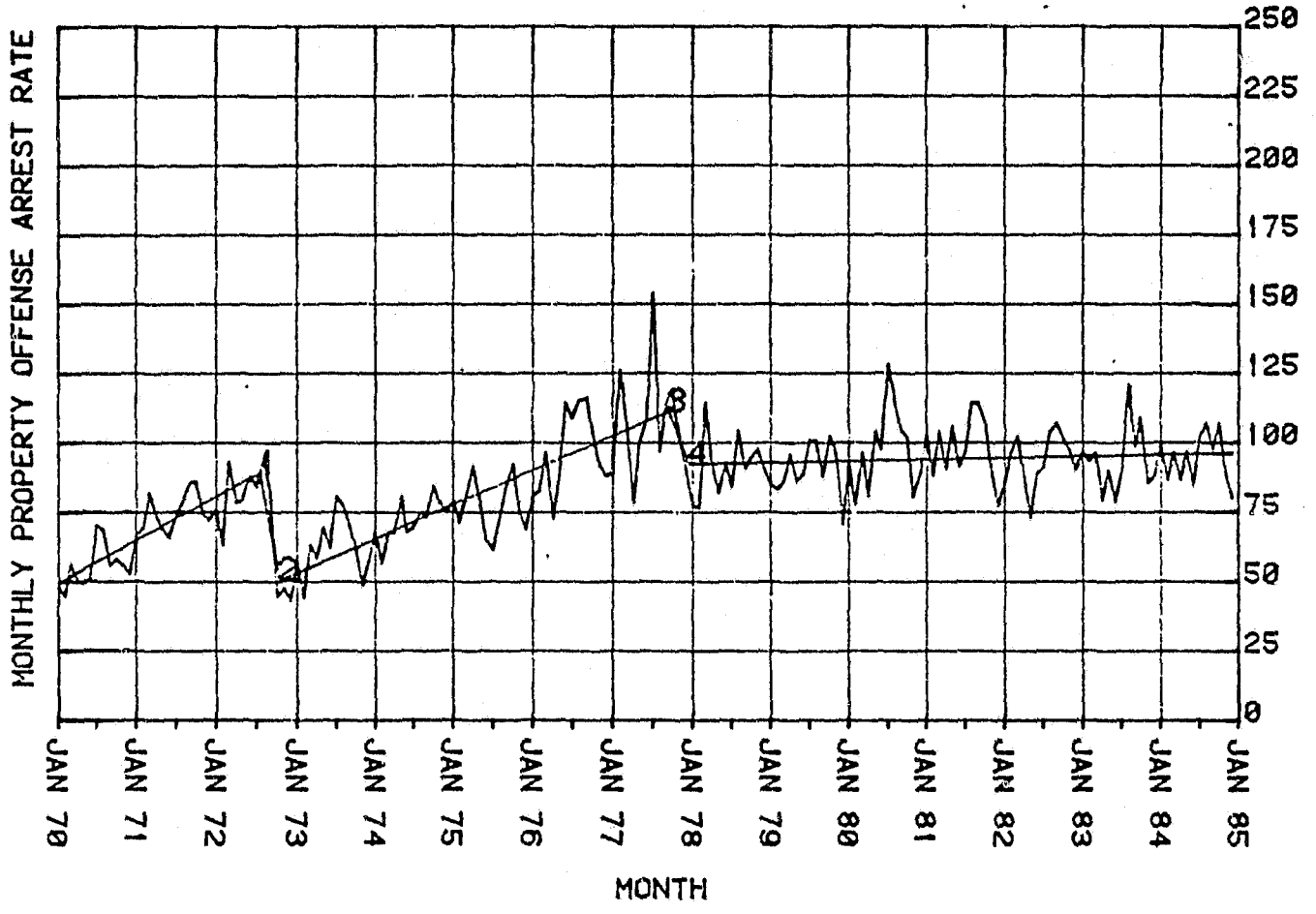
PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.68
Y ZERO INTERCEPT =	330.20
SECOND SLOPE =	-1.54
Y ZERO INTERCEPT =	531.10

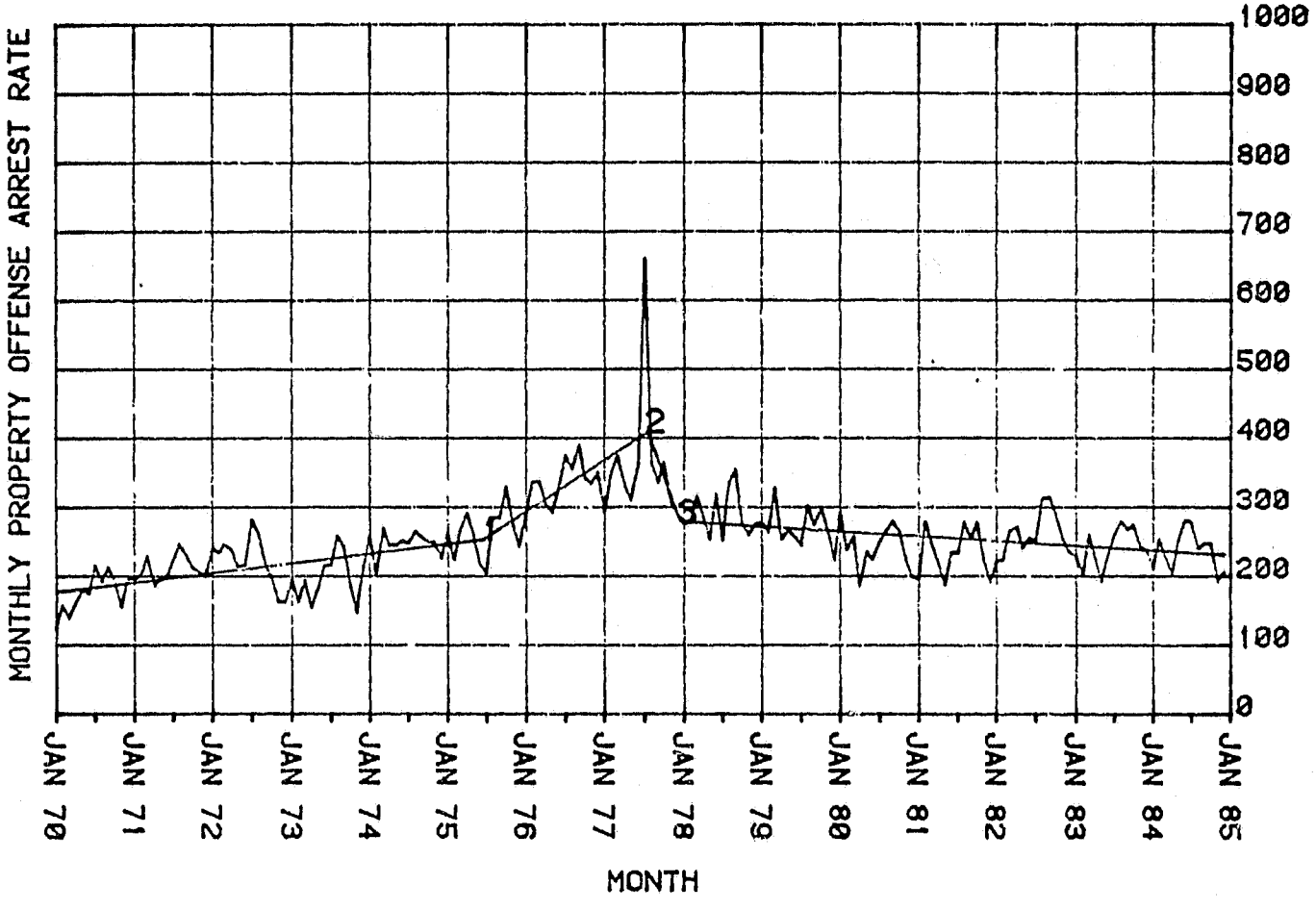
FIRST TURNING POINT X: 6/77
Y: 391.46
PCT SS EXPLAINED = 26.08

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



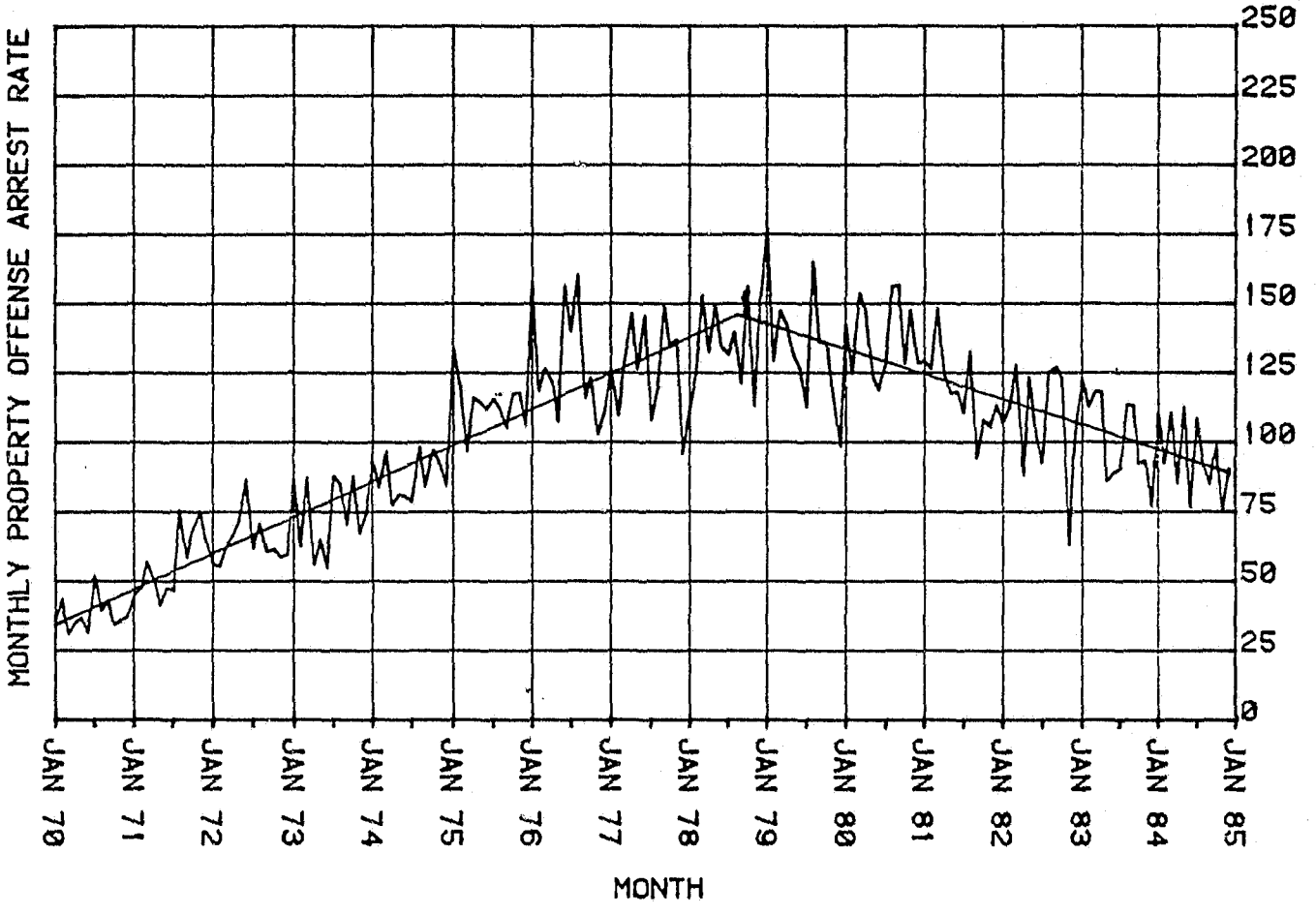
FIRST	SLOPE =	1.30	FIRST TURNING POINT	X:	7/72
Y ZERO	INTERCEPT =	48.14		Y:	89.21
SECOND	SLOPE =	-12.83	SECOND TURNING POINT	X:	10/72
Y ZERO	INTERCEPT =	493.23		Y:	50.74
THIRD	SLOPE =	1.02	THIRD TURNING POINT	X:	9/77
Y ZERO	INTERCEPT =	15.40		Y:	111.17
FOURTH	SLOPE =	-6.28	FOURTH TURNING POINT	X:	12/77
Y ZERO	INTERCEPT =	698.67		Y:	92.32
FIFTH	SLOPE =	0.05	PCT SS EXPLAINED =		64.94
Y ZERO	INTERCEPT =	87.81			

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	1.15	FIRST TURNING POINT X:	6/75
Y ZERO INTERCEPT =	176.46	Y:	253.02
SECOND SLOPE =	6.26	SECOND TURNING POINT X:	7/77
Y ZERO INTERCEPT =	-163.13	Y:	409.47
THIRD SLOPE =	-26.19	THIRD TURNING POINT X:	12/77
Y ZERO INTERCEPT =	2805.44	Y:	278.55
FOURTH SLOPE =	-0.57	PCT SS EXPLAINED =	61.18
Y ZERO INTERCEPT =	333.94		

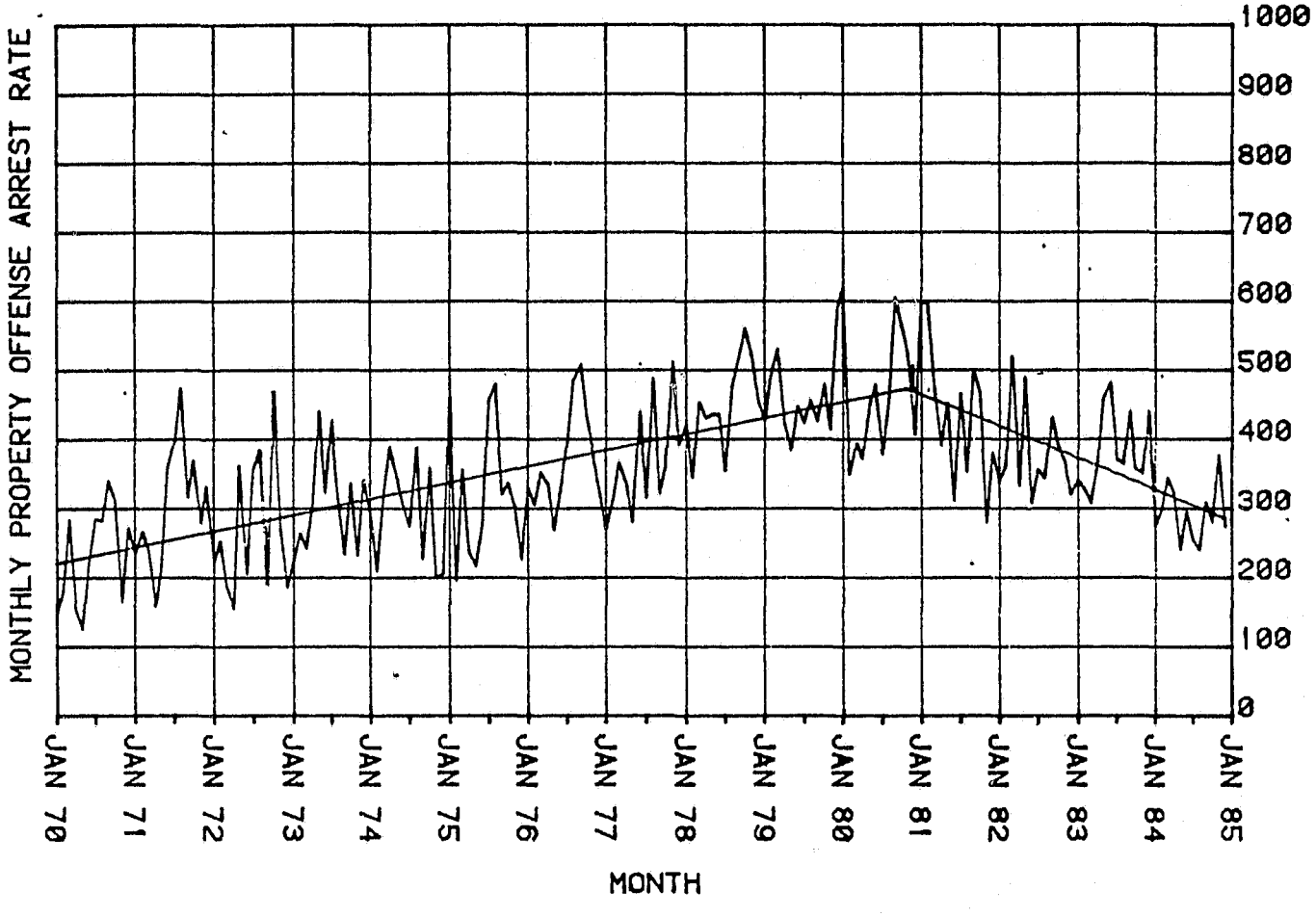
PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	1.08
Y ZERO INTERCEPT =	33.28
SECOND SLOPE =	-0.76
Y ZERO INTERCEPT =	225.01

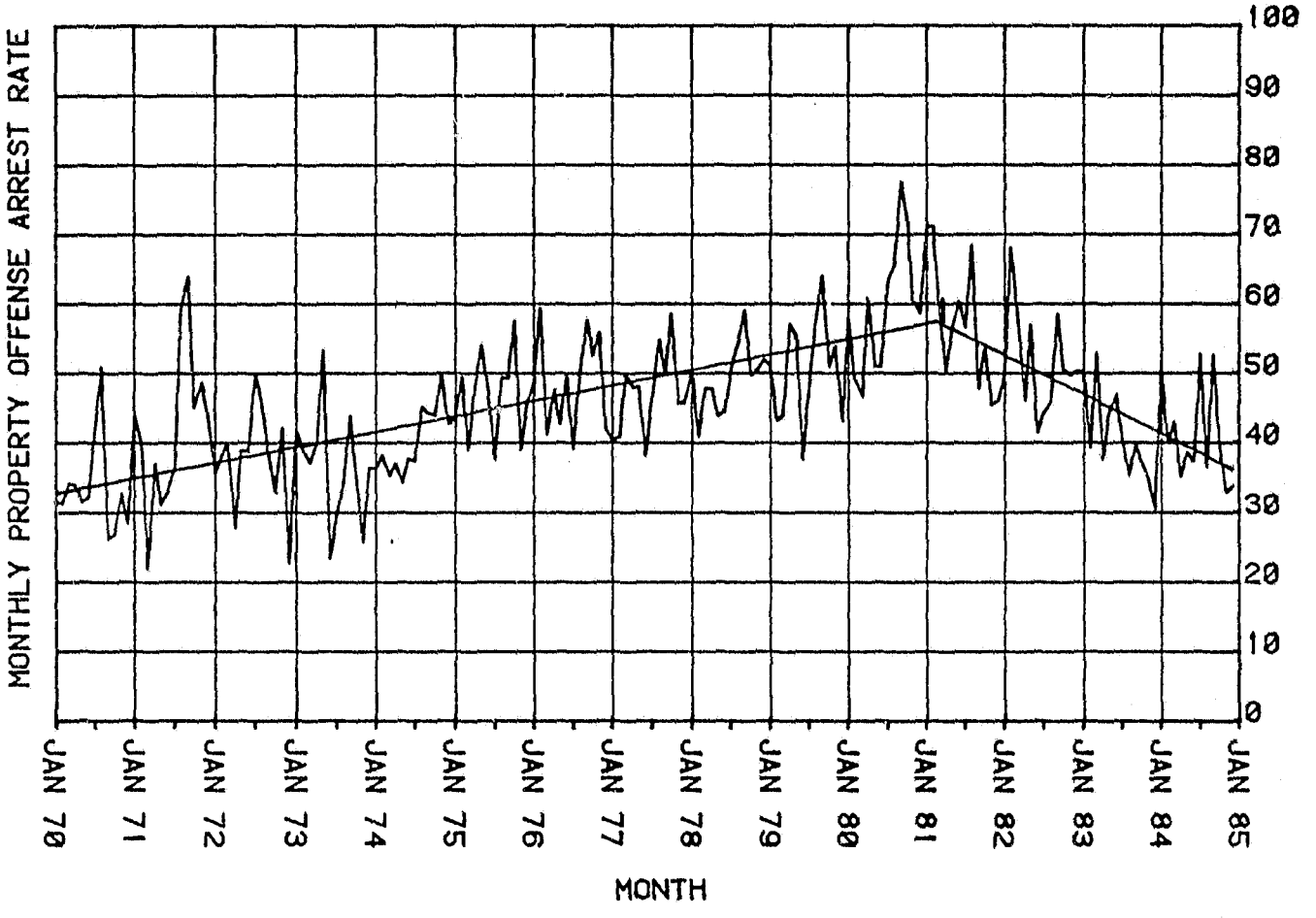
FIRST TURNING POINT X: 8/78
Y: 146.00
PCT SS EXPLAINED = 80.62

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	1.94	FIRST TURNING POINT X:	10/80
Y ZERO INTERCEPT =	219.73	Y:	473.14
SECOND SLOPE =	-3.77	PCT SS EXPLAINED =	45.58
Y ZERO INTERCEPT =	965.76		

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.18	FIRST TURNING POINT X:	2/81
Y ZERO INTERCEPT =	32.64	Y:	57.51
SECOND SLOPE =	-0.47	PCT SS EXPLAINED =	46.30
Y ZERO INTERCEPT =	120.82		

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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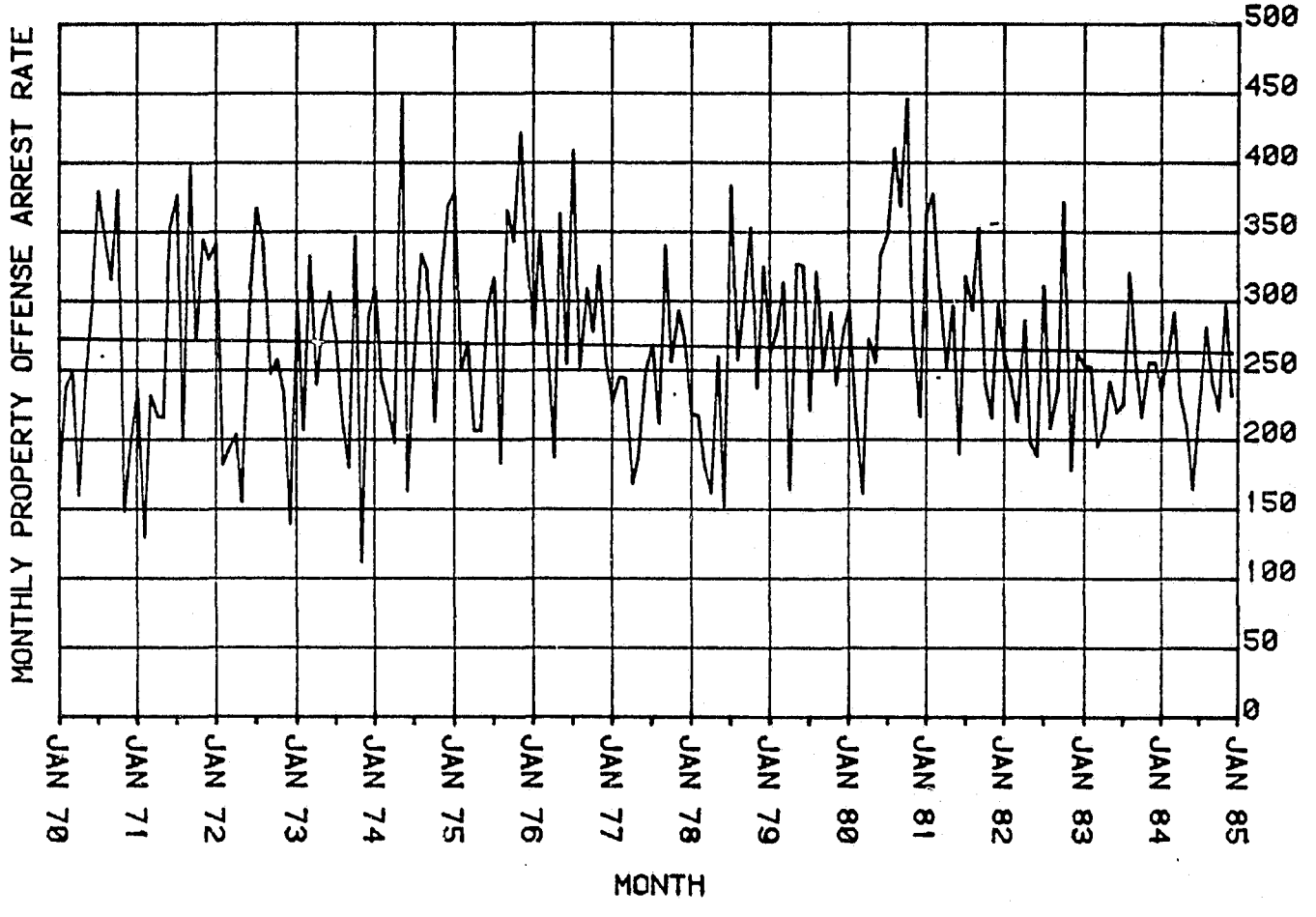

FIRST SLOPE = -0.06 PCT SS EXPLAINED = 0.19
Y ZERO INTERCEPT = 272.47

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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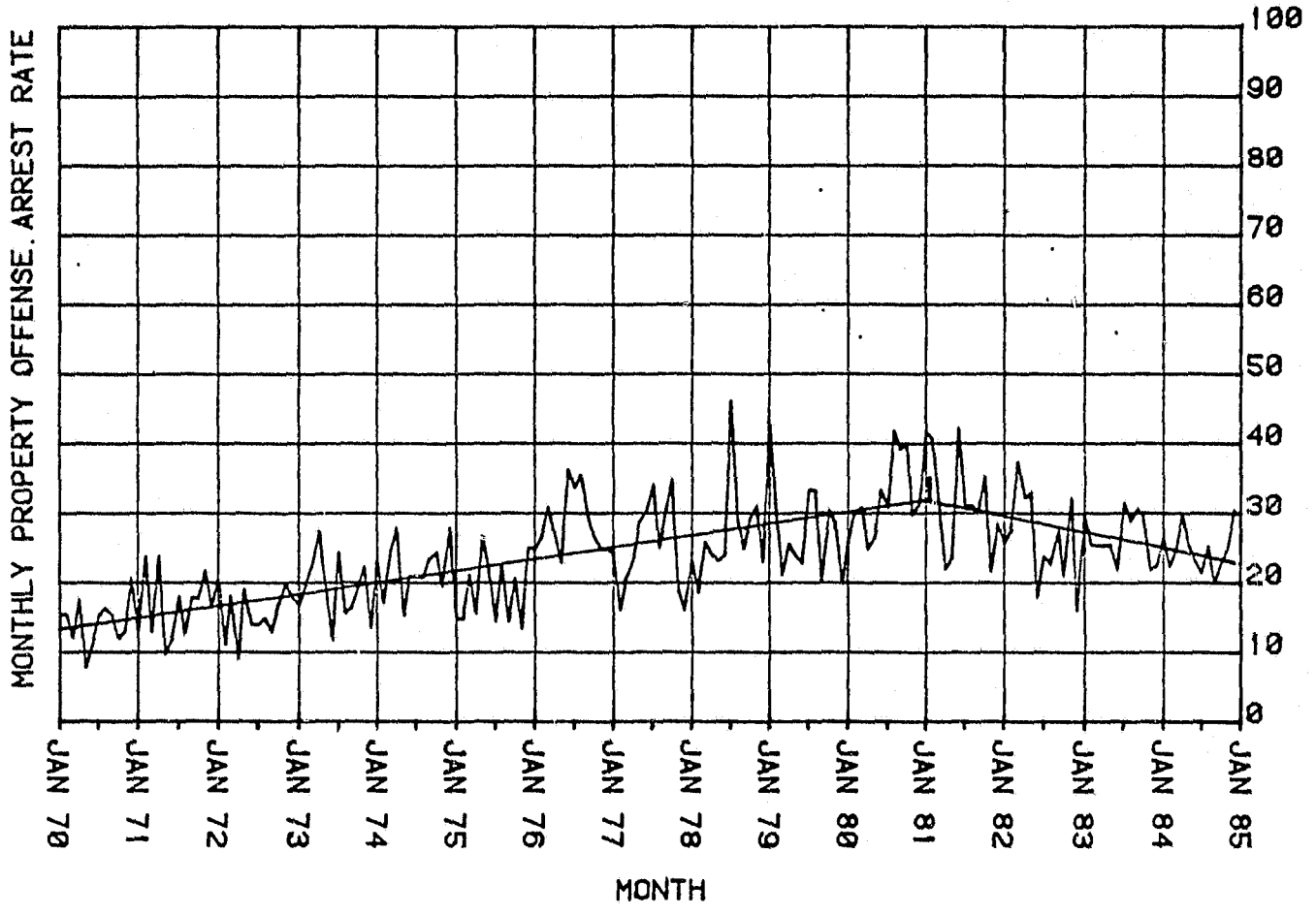
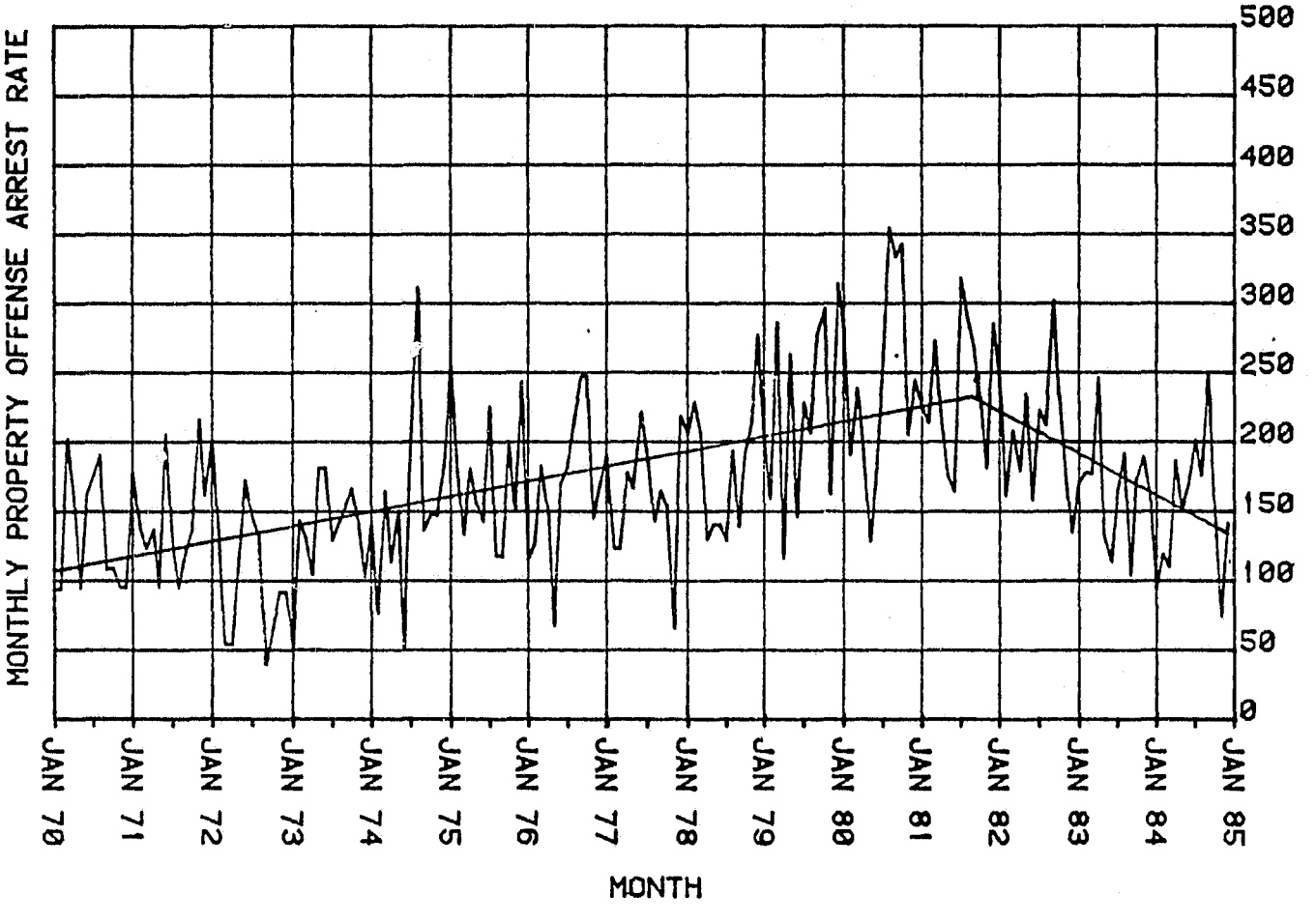


FIRST SLOPE =	0.14
Y ZERO INTERCEPT =	13.13
SECOND SLOPE =	-0.19
Y ZERO INTERCEPT =	56.45

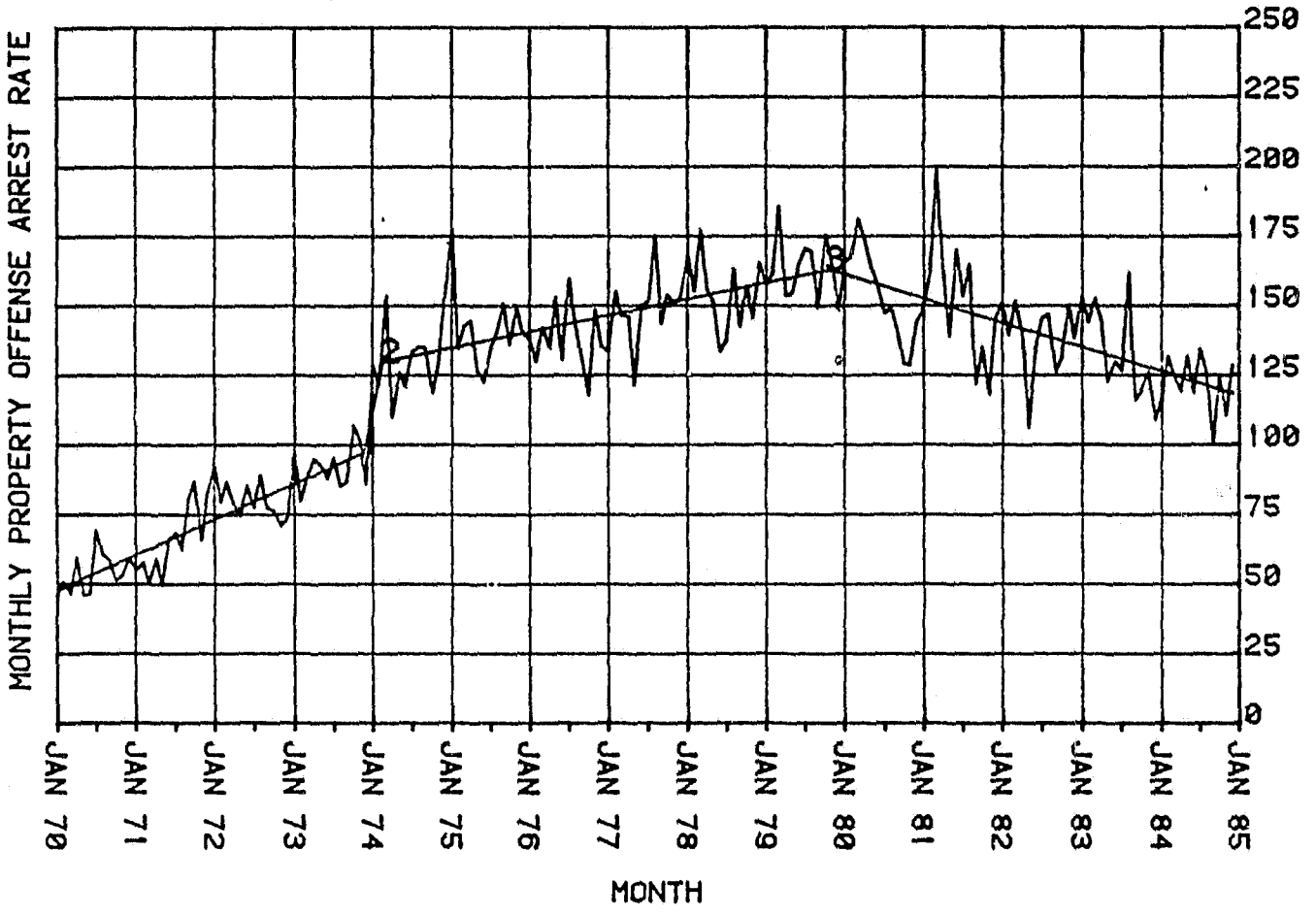
FIRST TURNING POINT X: 12/80
Y: 31.78
PCT SS EXPLAINED = 49.65

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.90	FIRST TURNING POINT X:	8/81
Y ZERO INTERCEPT =	106.31	Y:	232.50
SECOND SLOPE =	-2.50	PCT SS EXPLAINED =	32.24
Y ZERO INTERCEPT =	583.62		

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST	SLOPE =	1.00	FIRST	TURNING POINT	X: 11/73
Y ZERO	INTERCEPT =	46.92			Y: 97.36
SECOND	SLOPE =	10.83	SECOND	TURNING POINT	X: 2/74
Y ZERO	INTERCEPT =	-417.30			Y: 129.86
THIRD	SLOPE =	0.49	THIRD	TURNING POINT	X: 10/79
Y ZERO	INTERCEPT =	105.17			Y: 163.11
FOURTH	SLOPE =	-0.73	PCT SS	EXPLAINED =	87.98
Y ZERO	INTERCEPT =	249.16			

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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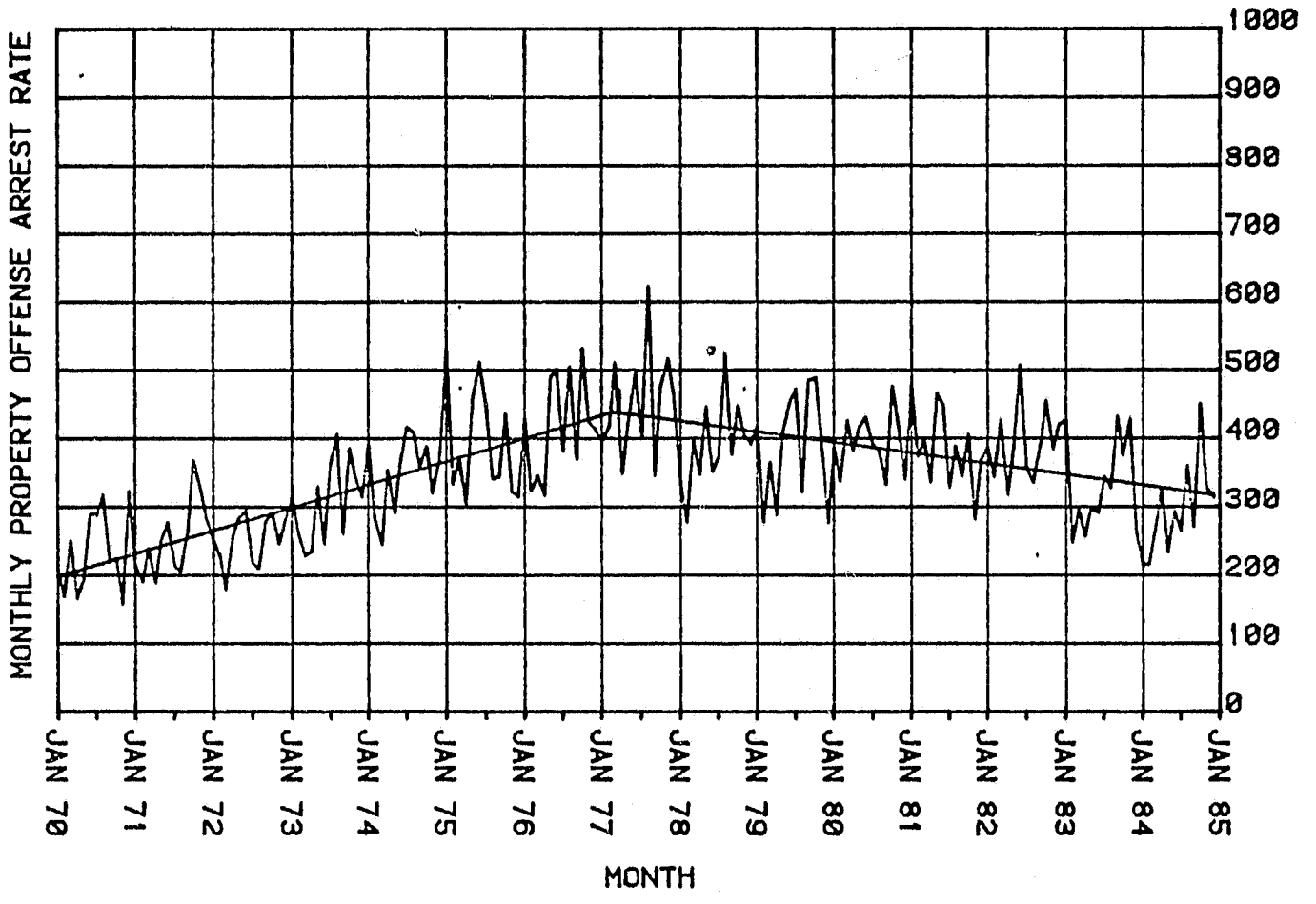

FIRST SLOPE =	2.81	FIRST TURNING POINT X:	2/77
Y ZERO INTERCEPT =	195.78	Y:	438.64
SECOND SLOPE =	-1.30	PCT SS EXPLAINED =	48.96
Y ZERO INTERCEPT =	551.00		

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24

UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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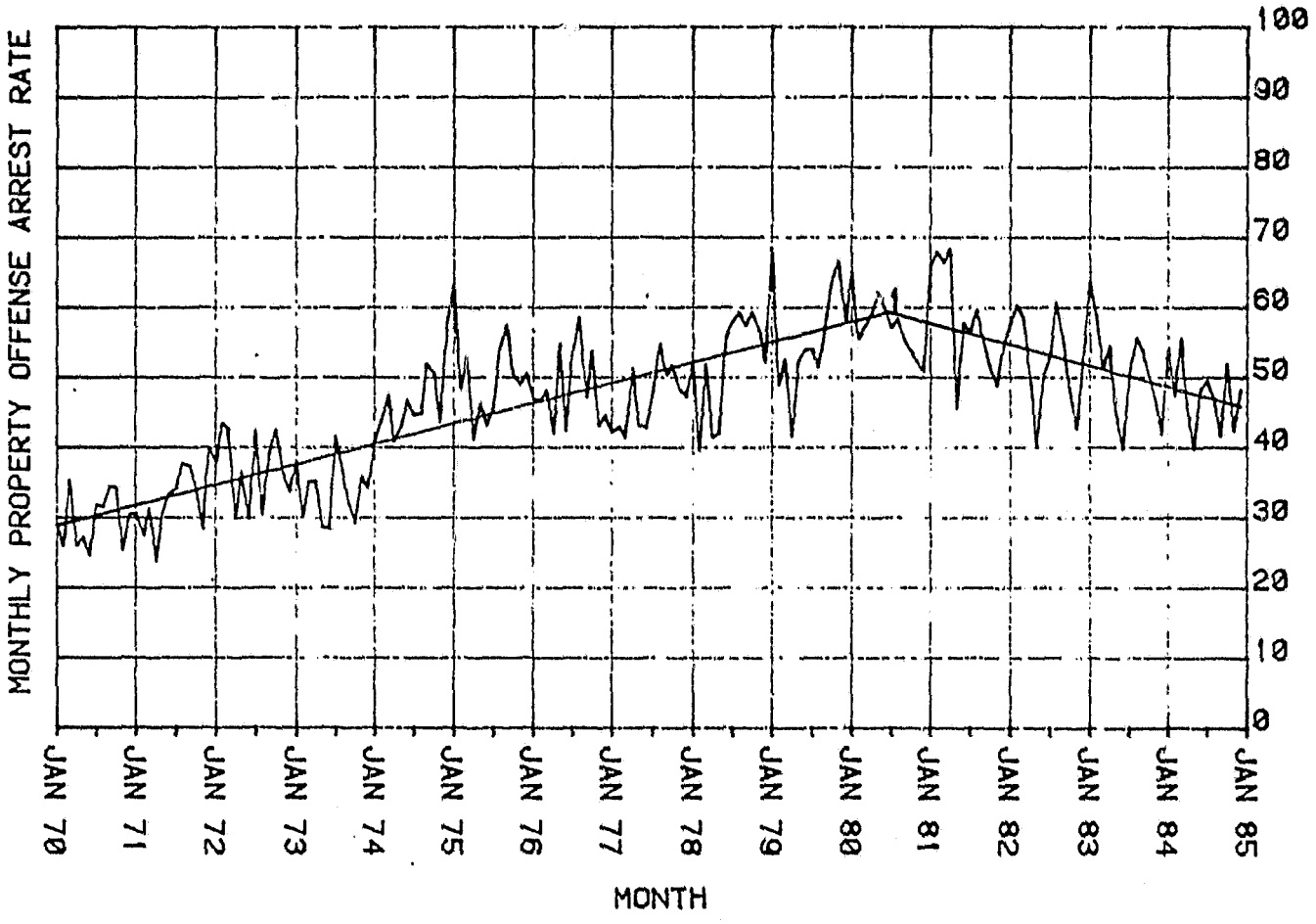

FIRST SLOPE =	0.24	FIRST TURNING POINT X:	6/80
Y ZERO INTERCEPT =	28.72	Y:	59.34
SECOND SLOPE =	-0.25	PCT SS EXPLAINED =	68.15
Y ZERO INTERCEPT =	91.17		

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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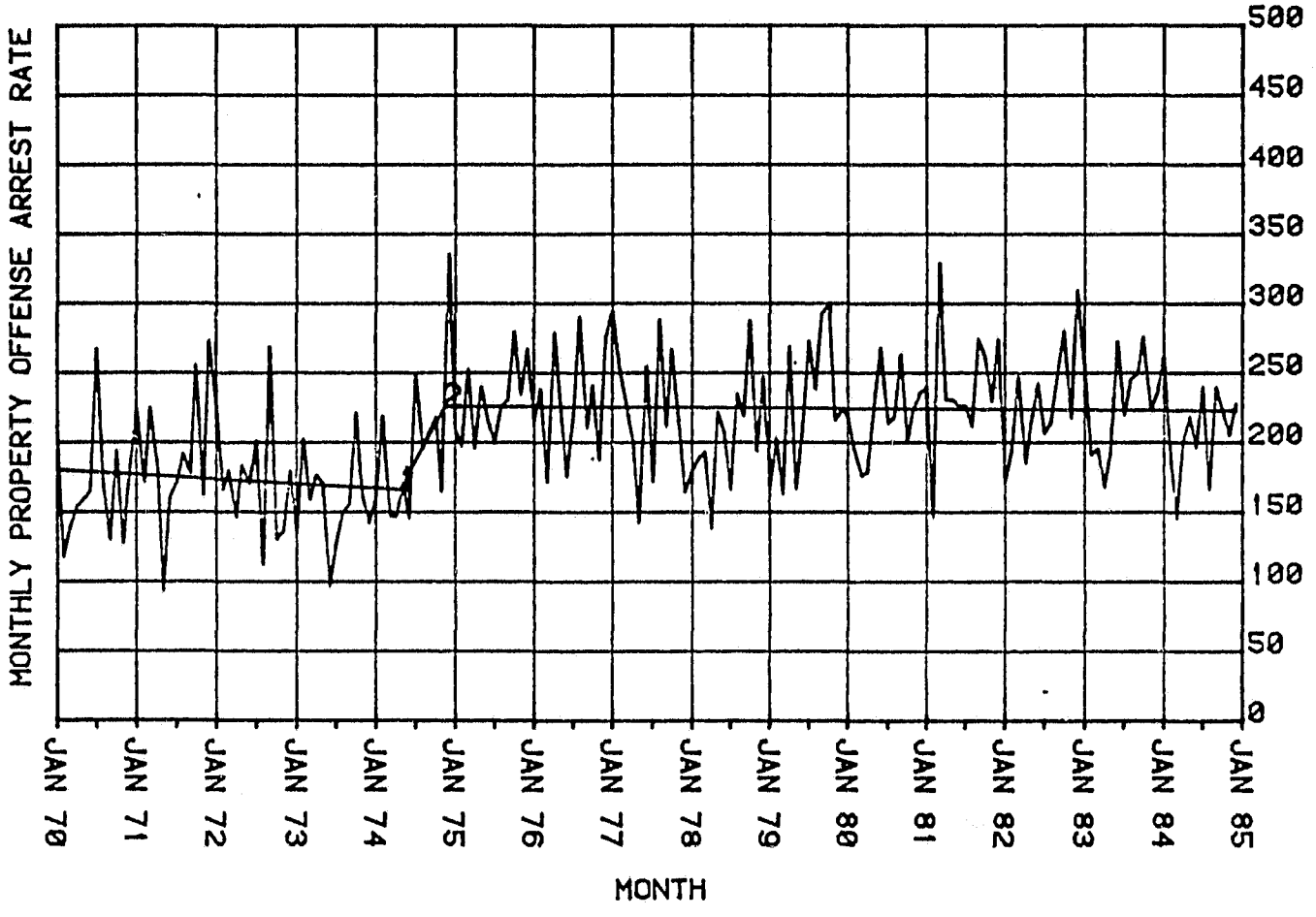
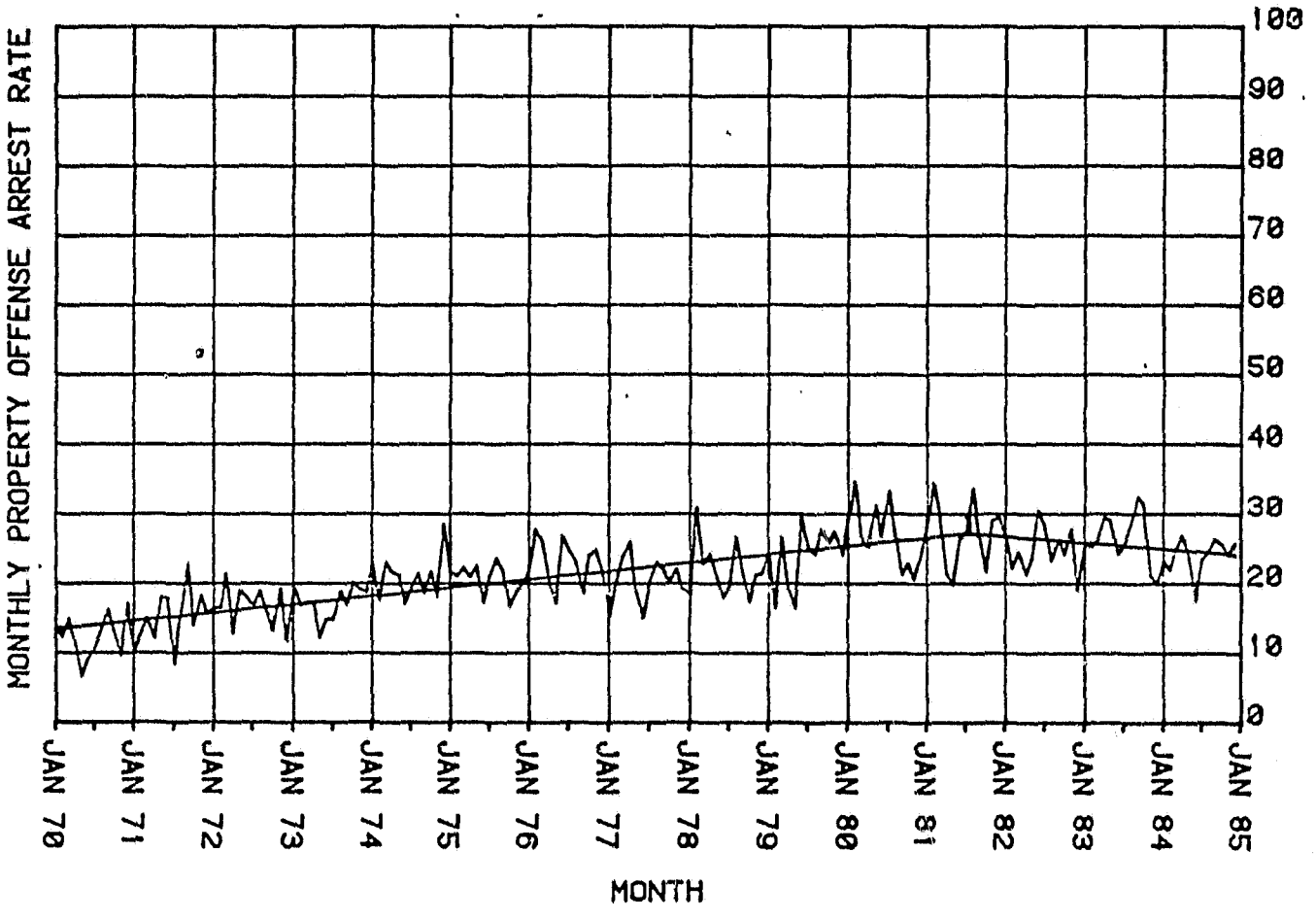


FIRST SLOPE =	-0.28
Y ZERO INTERCEPT =	180.26
SECOND SLOPE =	8.63
Y ZERO INTERCEPT =	-287.35
THIRD SLOPE =	-0.03
Y ZERO INTERCEPT =	227.81

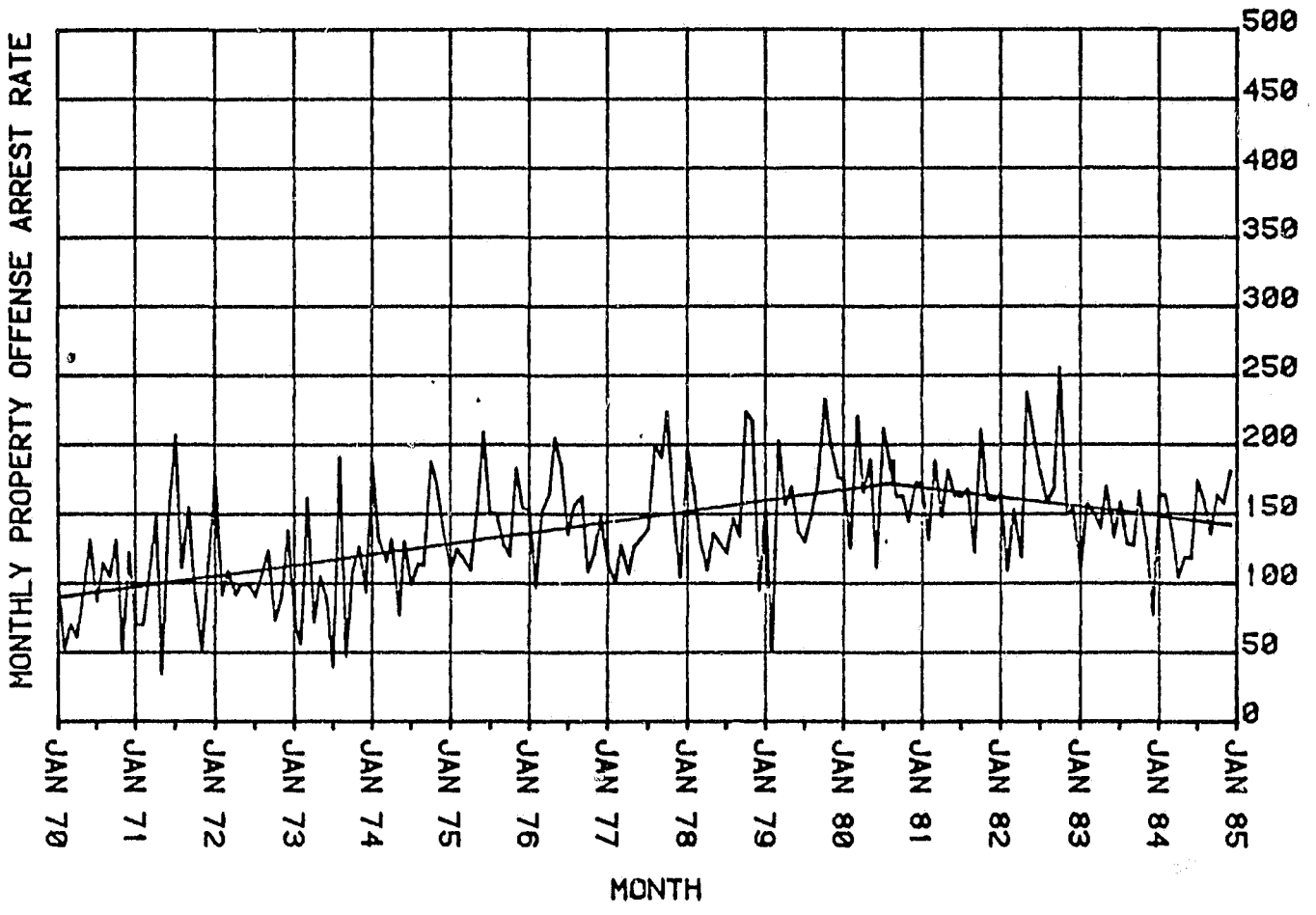
FIRST TURNING POINT X:	4/74
Y:	165.74
SECOND TURNING POINT X:	11/74
Y:	226.15
PCT SS EXPLAINED =	26.27

PROPERTY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



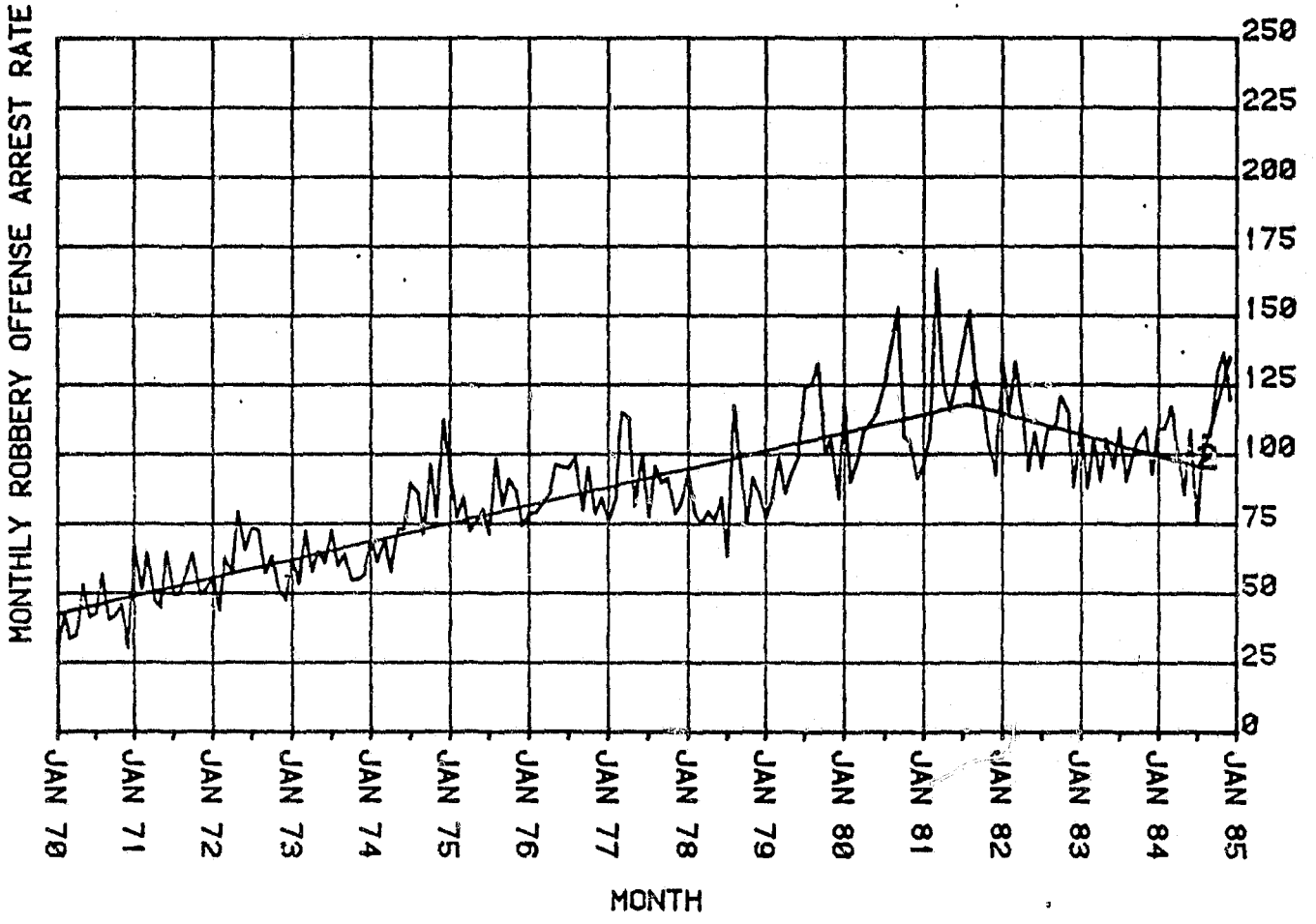
FIRST SLOPE =	0.10	FIRST TURNING POINT X:	6/81
Y ZERO INTERCEPT =	13.35	Y:	27.08
SECOND SLOPE =	-0.07	PCT SS EXPLAINED =	57.75
Y ZERO INTERCEPT =	37.05		

PROPERTY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.64	FIRST TURNING POINT X:	7/80
Y ZERO INTERCEPT =	89.39	Y:	171.59
SECOND SLOPE =	-0.56	PCT SS EXPLAINED =	31.07
Y ZERO INTERCEPT =	243.52		

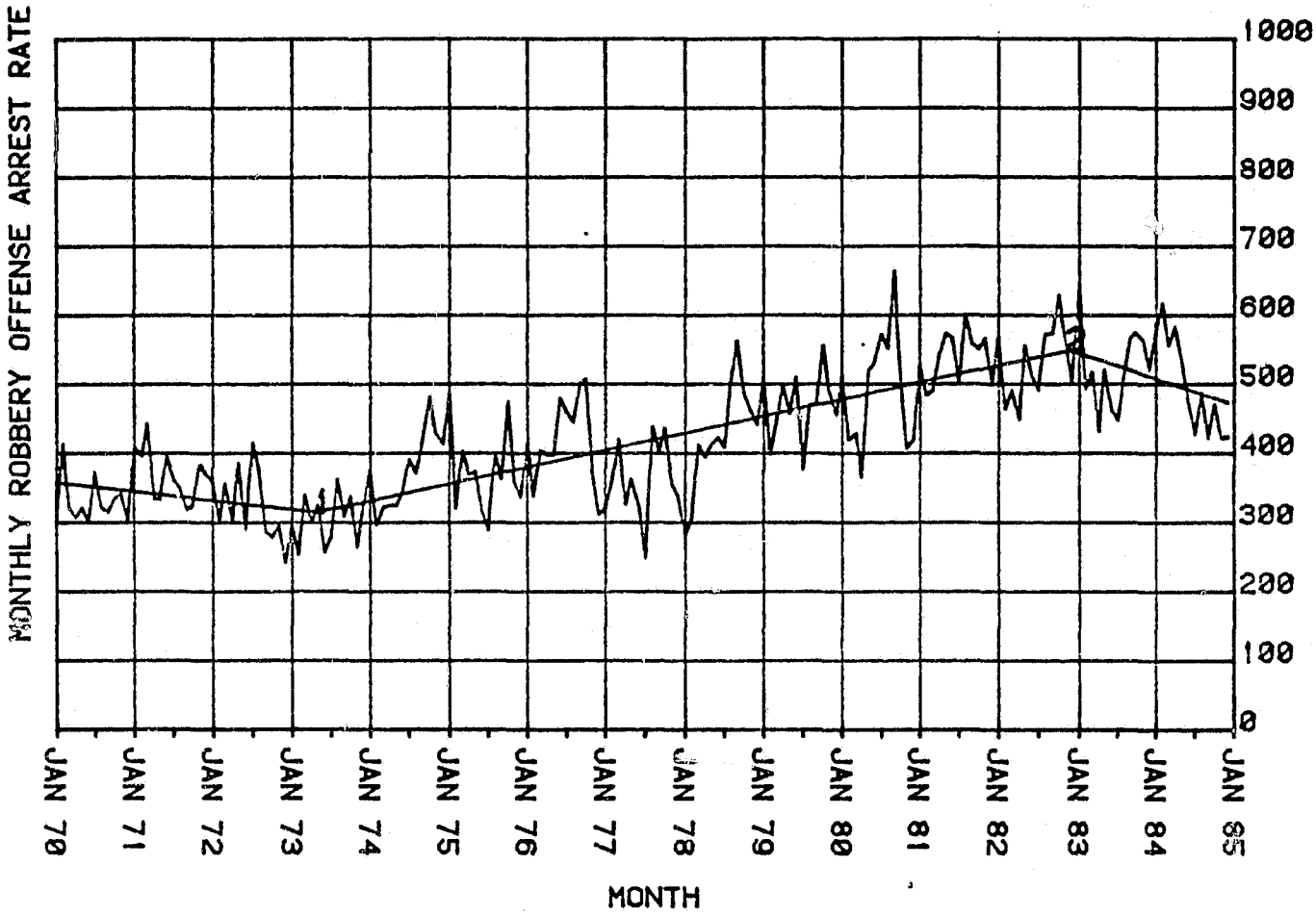
ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.54
Y ZERO INTERCEPT =	42.09
SECOND SLOPE =	-0.63
Y ZERO INTERCEPT =	206.07
THIRD SLOPE =	8.81
Y ZERO INTERCEPT =	-1450.50

FIRST TURNING POINT X:	7/81
Y:	118.10
SECOND TURNING POINT X:	7/84
Y:	95.40
PCT SS EXPLAINED =	74.44

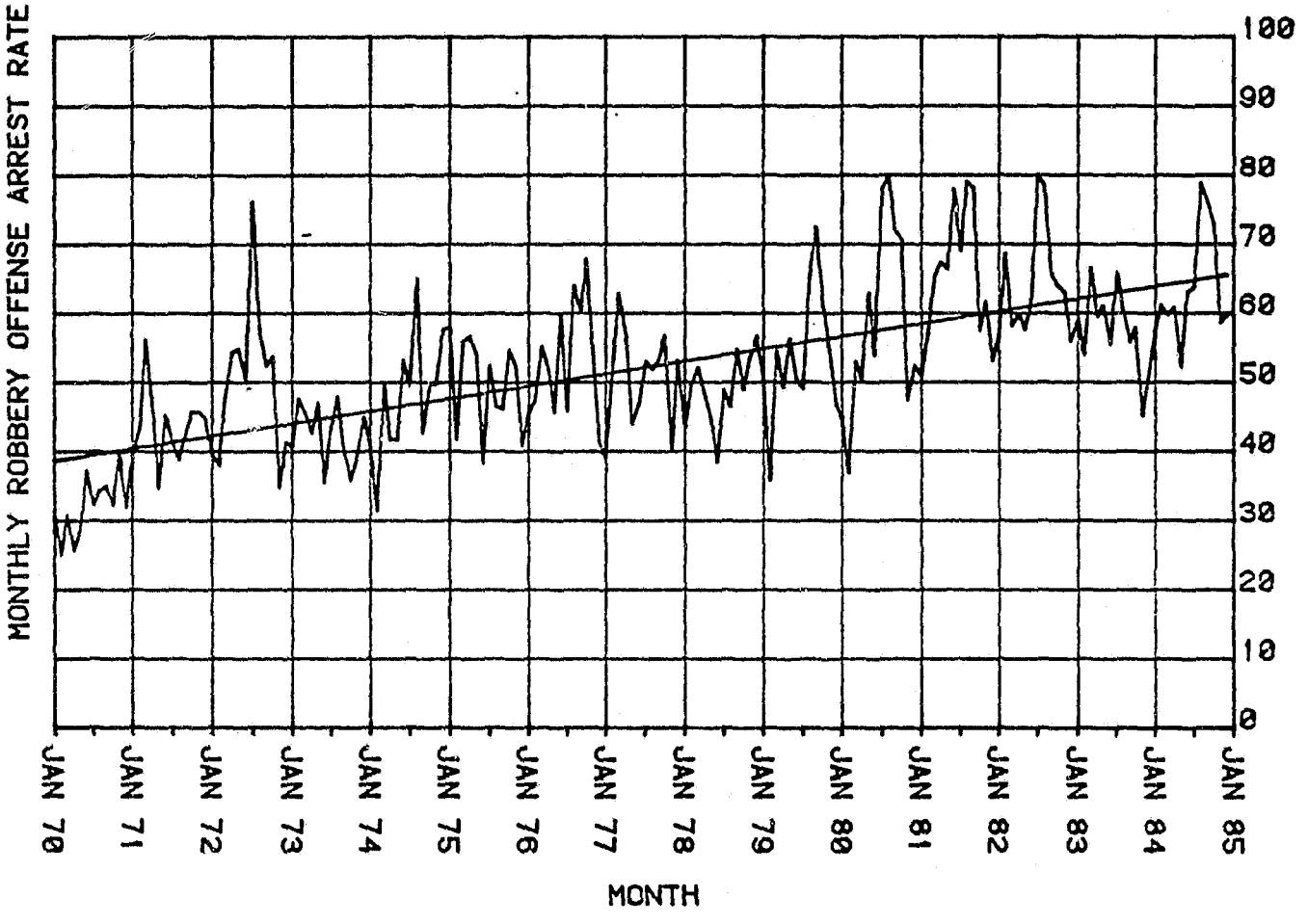
ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	-1.04
Y ZERO INTERCEPT =	357.85
SECOND SLOPE =	2.03
Y ZERO INTERCEPT =	233.19
THIRD SLOPE =	-3.10
Y ZERO INTERCEPT =	1031.98

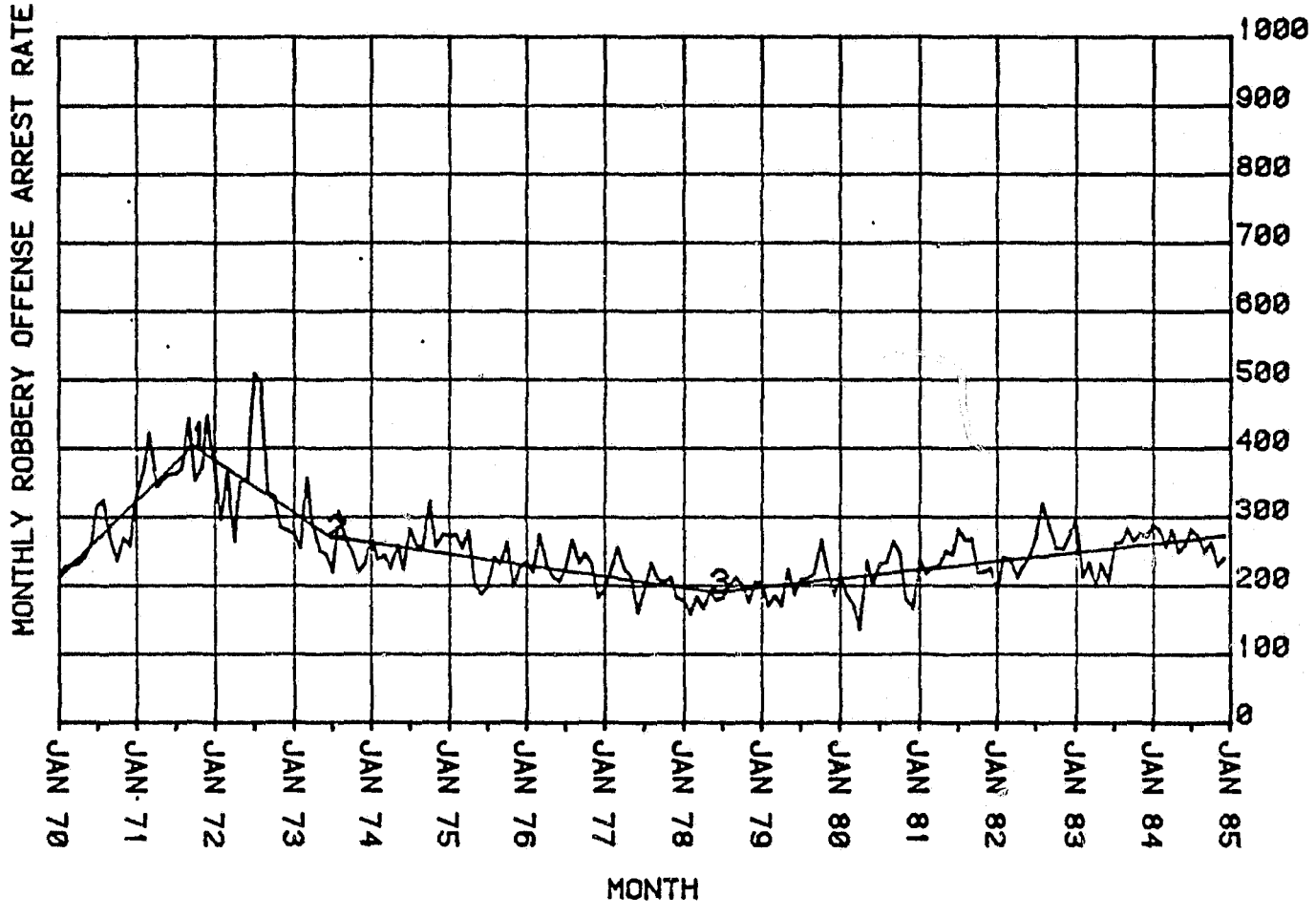
FIRST TURNING POINT	X: 4/73
	Y: 315.55
SECOND TURNING POINT	X: 11/82
	Y: 549.44
PCT SS EXPLAINED =	64.03

ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



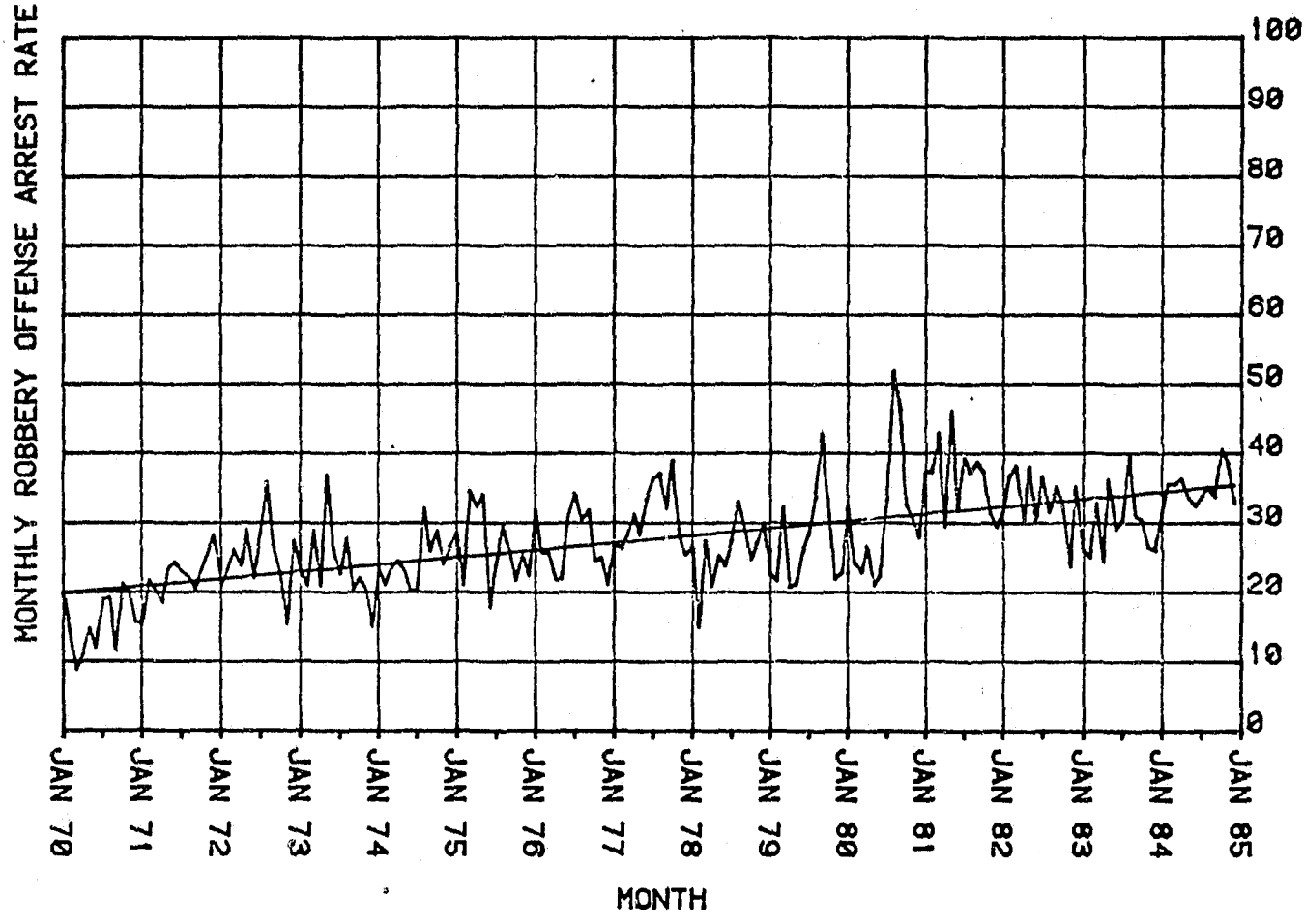
FIRST SLOPE = 0.15 PCT SS EXPLAINED = 44.92
Y ZERO INTERCEPT = 38.50

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	9.32	FIRST TURNING POINT	X: 9/71
Y ZERO INTERCEPT =	203.25		Y: 403.67
SECOND SLOPE =	-6.36	SECOND TURNING POINT	X: 6/73
Y ZERO INTERCEPT =	540.39		Y: 270.13
THIRD SLOPE =	-1.35	THIRD TURNING POINT	X: 5/78
Y ZERO INTERCEPT =	327.30		Y: 190.76
FOURTH SLOPE =	1.05	PCT SS EXPLAINED =	67.43
Y ZERO INTERCEPT =	84.28		

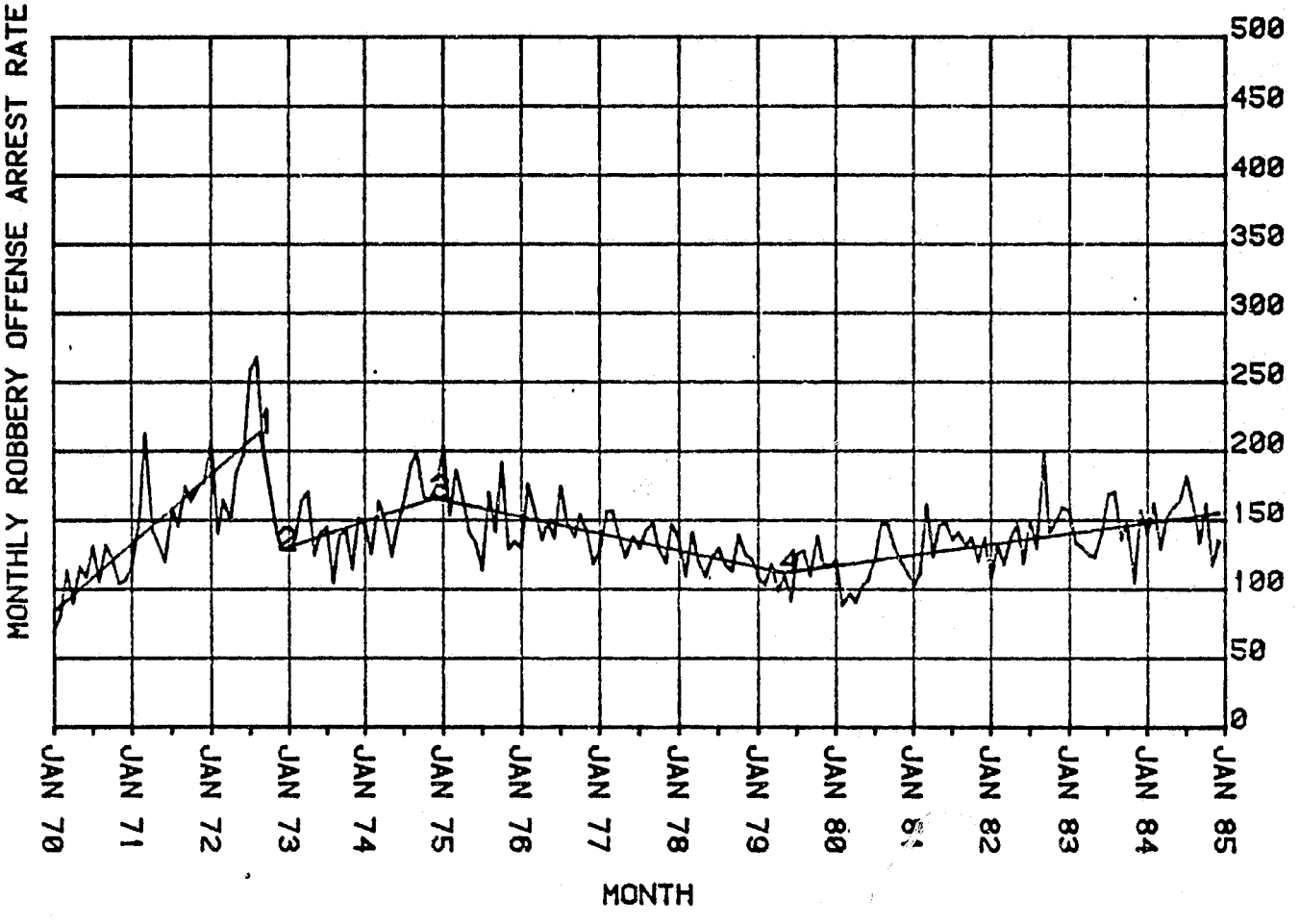
ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.09
Y ZERO INTERCEPT = 19.75

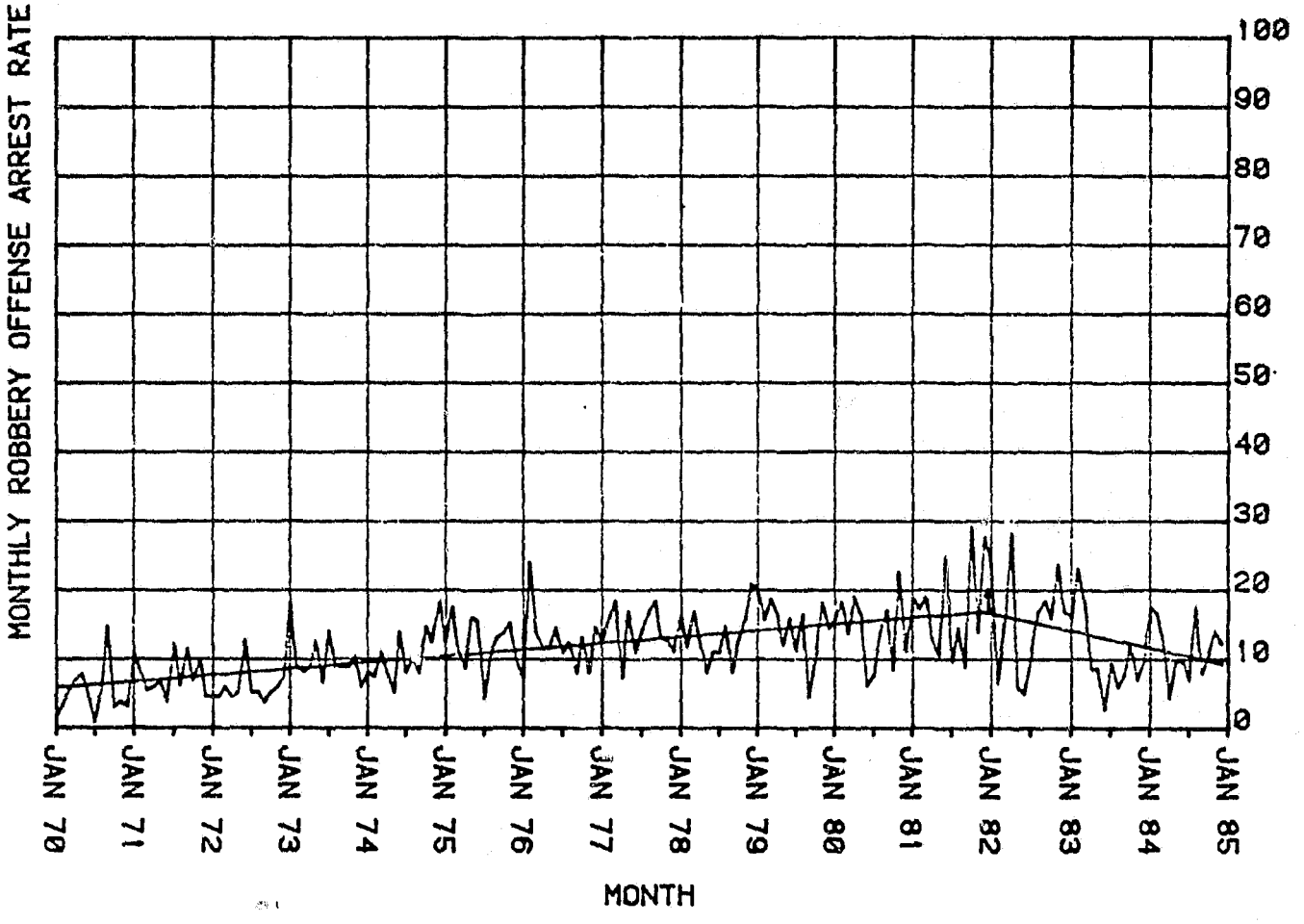
PCT SS EXPLAINED = 40.22

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	4.13	FIRST TURNING POINT X:	8/72
Y ZERO INTERCEPT =	79.57	Y:	213.78
SECOND SLOPE =	-28.42	SECOND TURNING POINT X:	11/72
Y ZERO INTERCEPT =	1137.26	Y:	128.53
THIRD SLOPE =	1.56	THIRD TURNING POINT X:	11/74
Y ZERO INTERCEPT =	73.29	Y:	165.88
FOURTH SLOPE =	-1.01	FOURTH TURNING POINT X:	4/79
Y ZERO INTERCEPT =	225.94	Y:	112.38
FIFTH SLOPE =	0.64	PCT SS EXPLAINED =	54.75
Y ZERO INTERCEPT =	40.72		

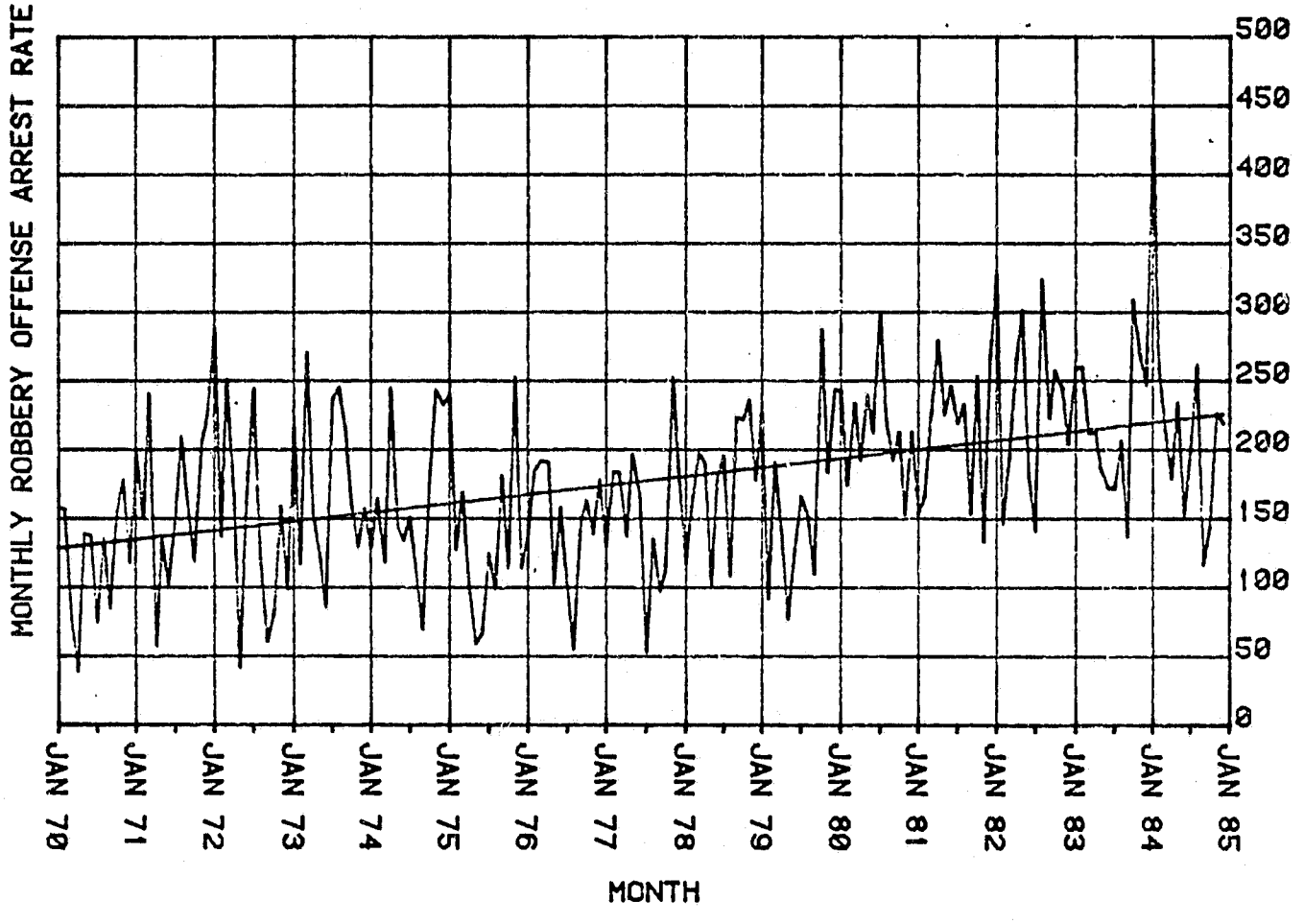
ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.08
Y ZERO INTERCEPT =	5.73
SECOND SLOPE =	-0.21
Y ZERO INTERCEPT =	47.38

FIRST TURNING POINT X: 11/81
Y: 16.95
PCT SS EXPLAINED = 32.50

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.55
Y ZERO INTERCEPT = 127.79

PCT SS EXPLAINED = 19.36

ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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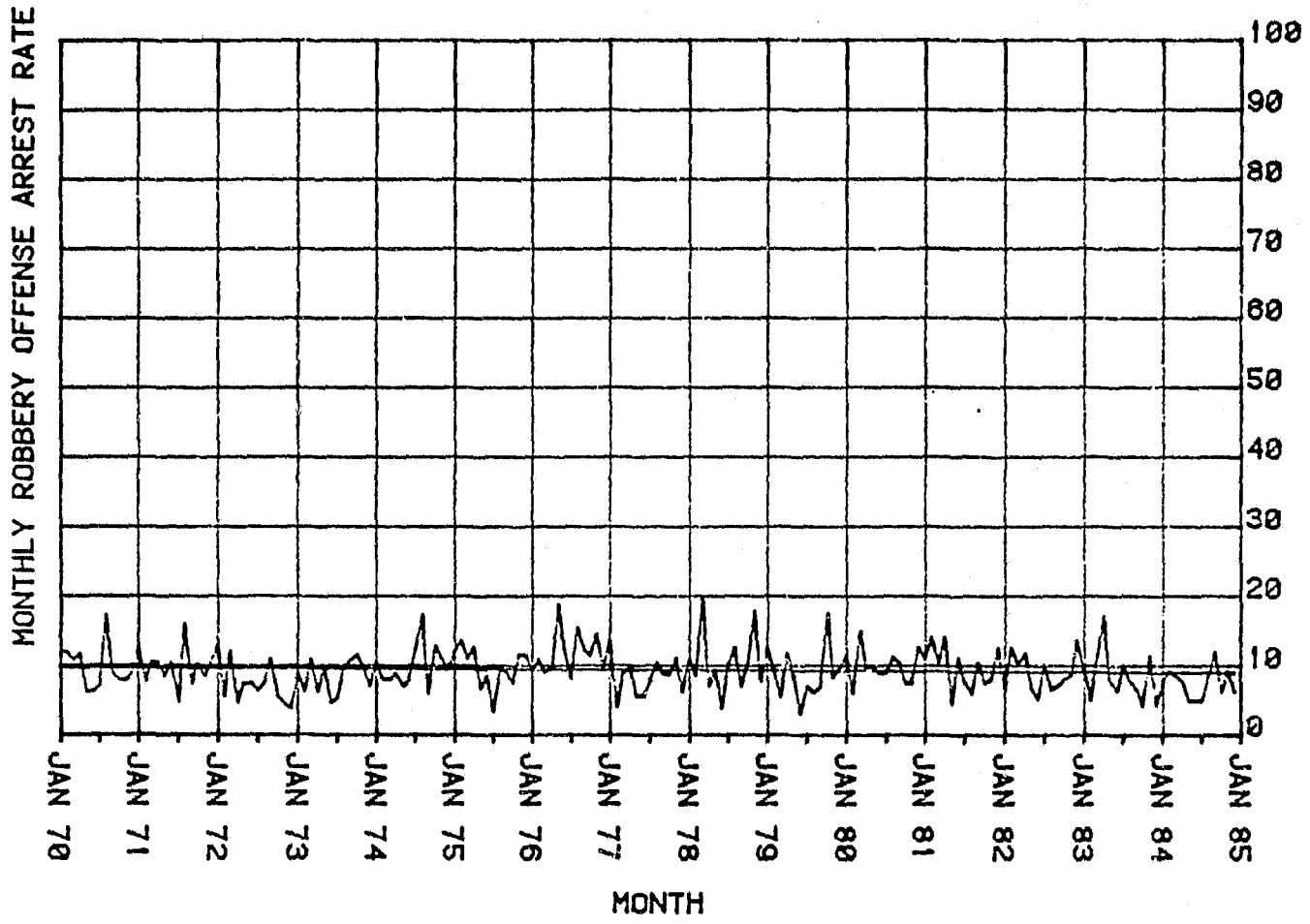

FIRST SLOPE = 0.00 PCT SS EXPLAINED = 0.60
Y ZERO INTERCEPT = 9.69

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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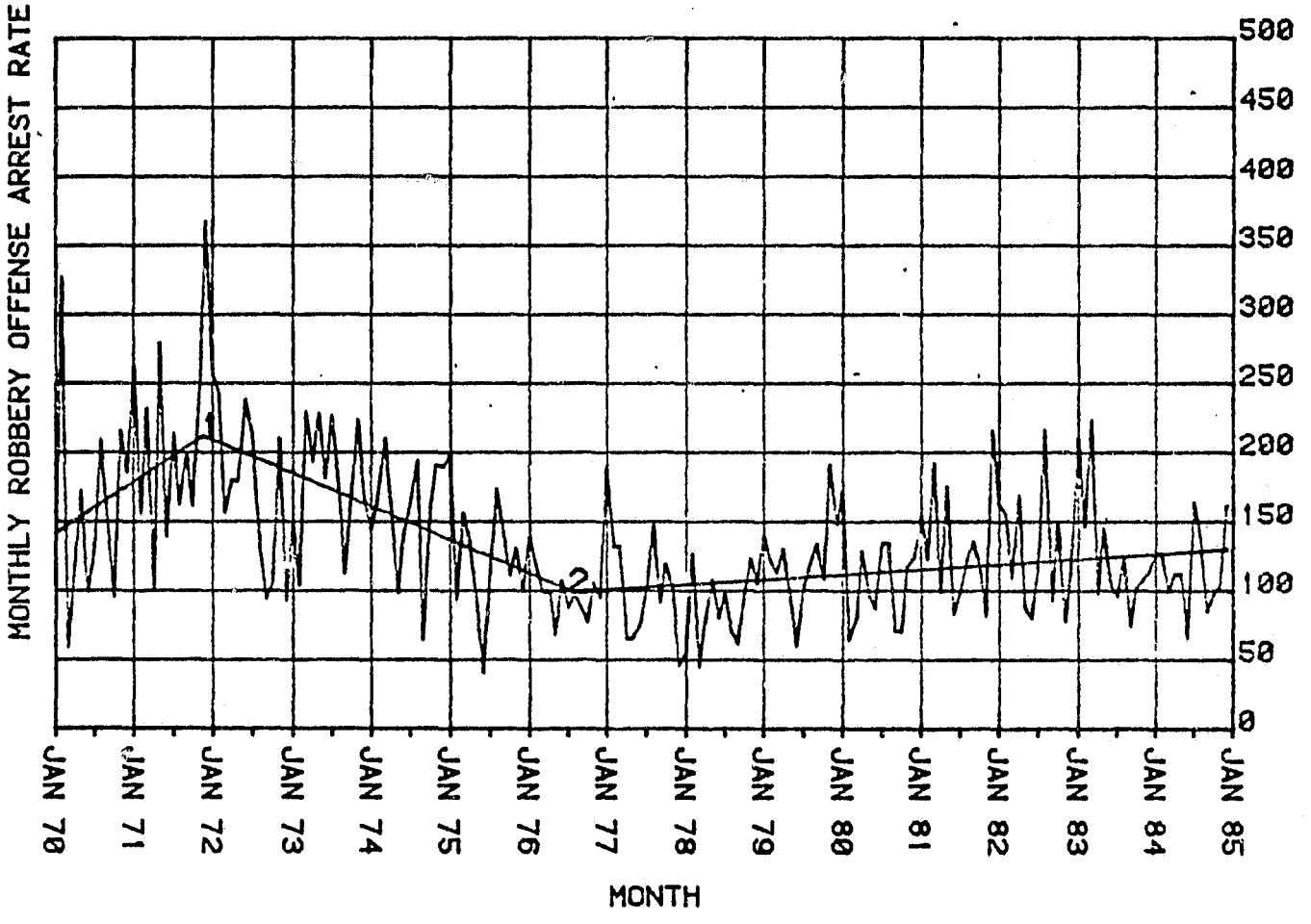
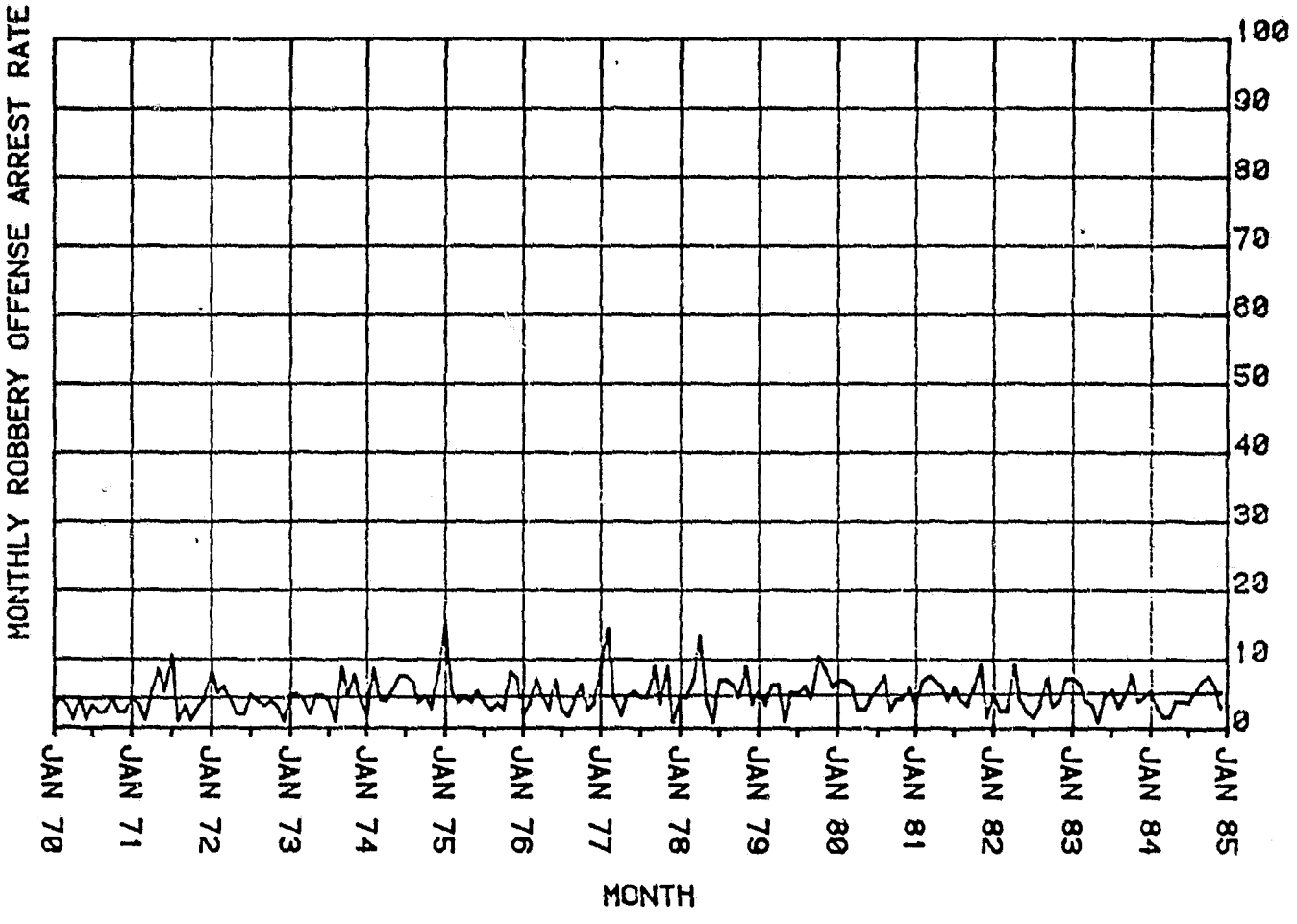


FIRST SLOPE =	3.11	FIRST TURNING POINT X:	11/71
Y ZERO INTERCEPT =	138.62	Y:	211.67
SECOND SLOPE =	-2.01	SECOND TURNING POINT X:	7/76
Y ZERO INTERCEPT =	258.94	Y:	99.04
THIRD SLOPE =	0.31	PCT SS EXPLAINED =	33.72
Y ZERO INTERCEPT =	74.25		

ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.01 PCT SS EXPLAINED = 1.33
Y ZERO INTERCEPT = 4.29

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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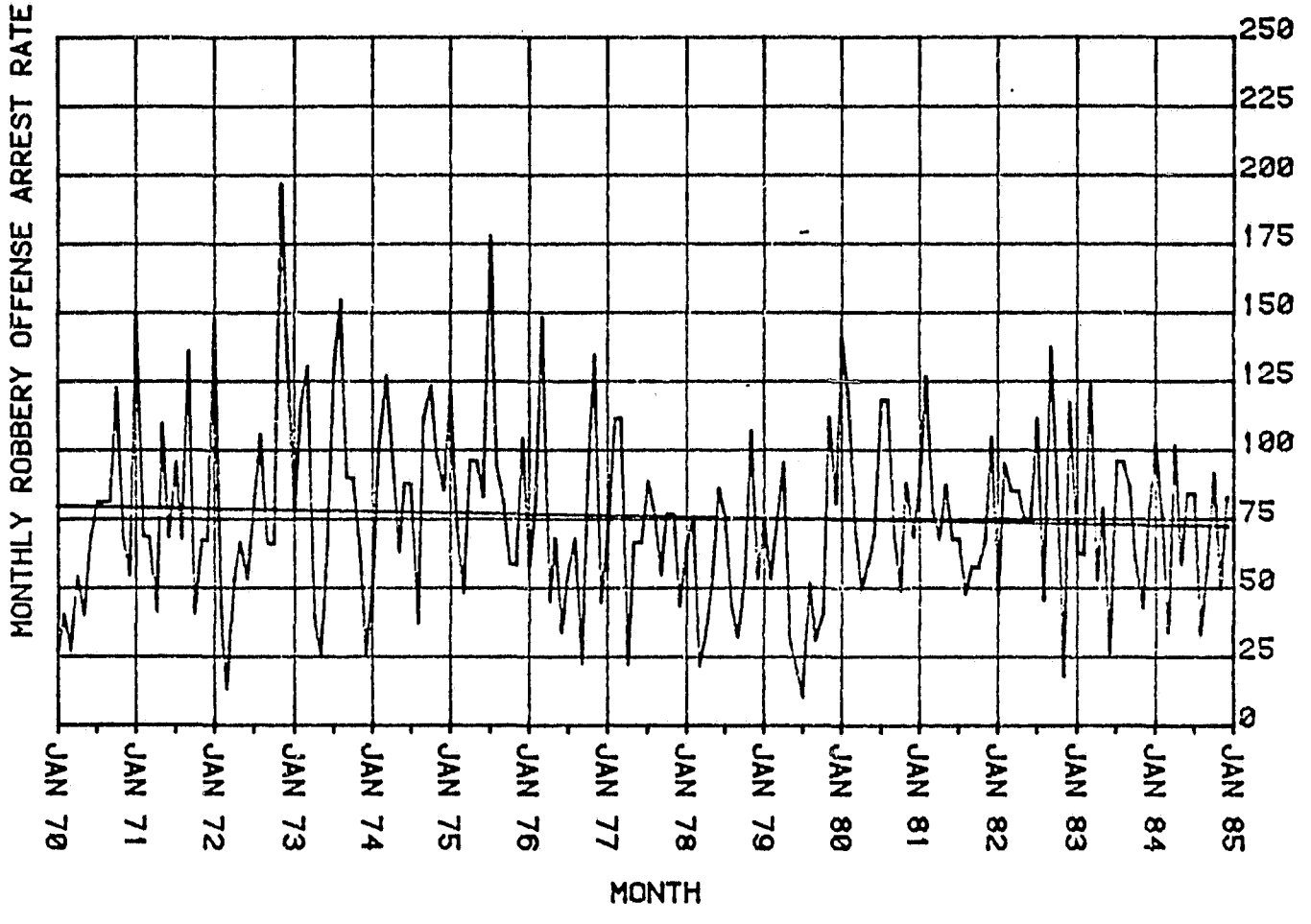
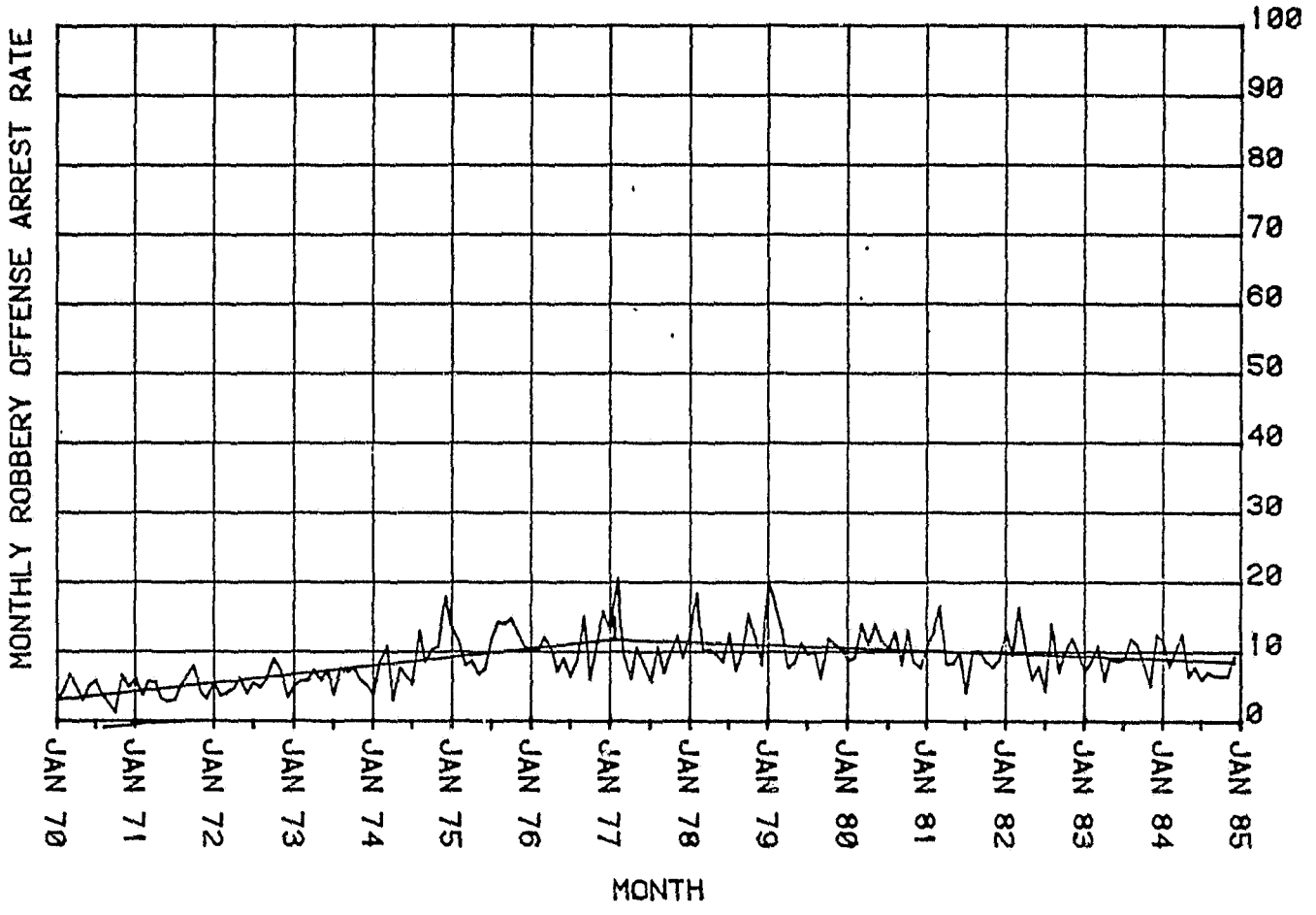


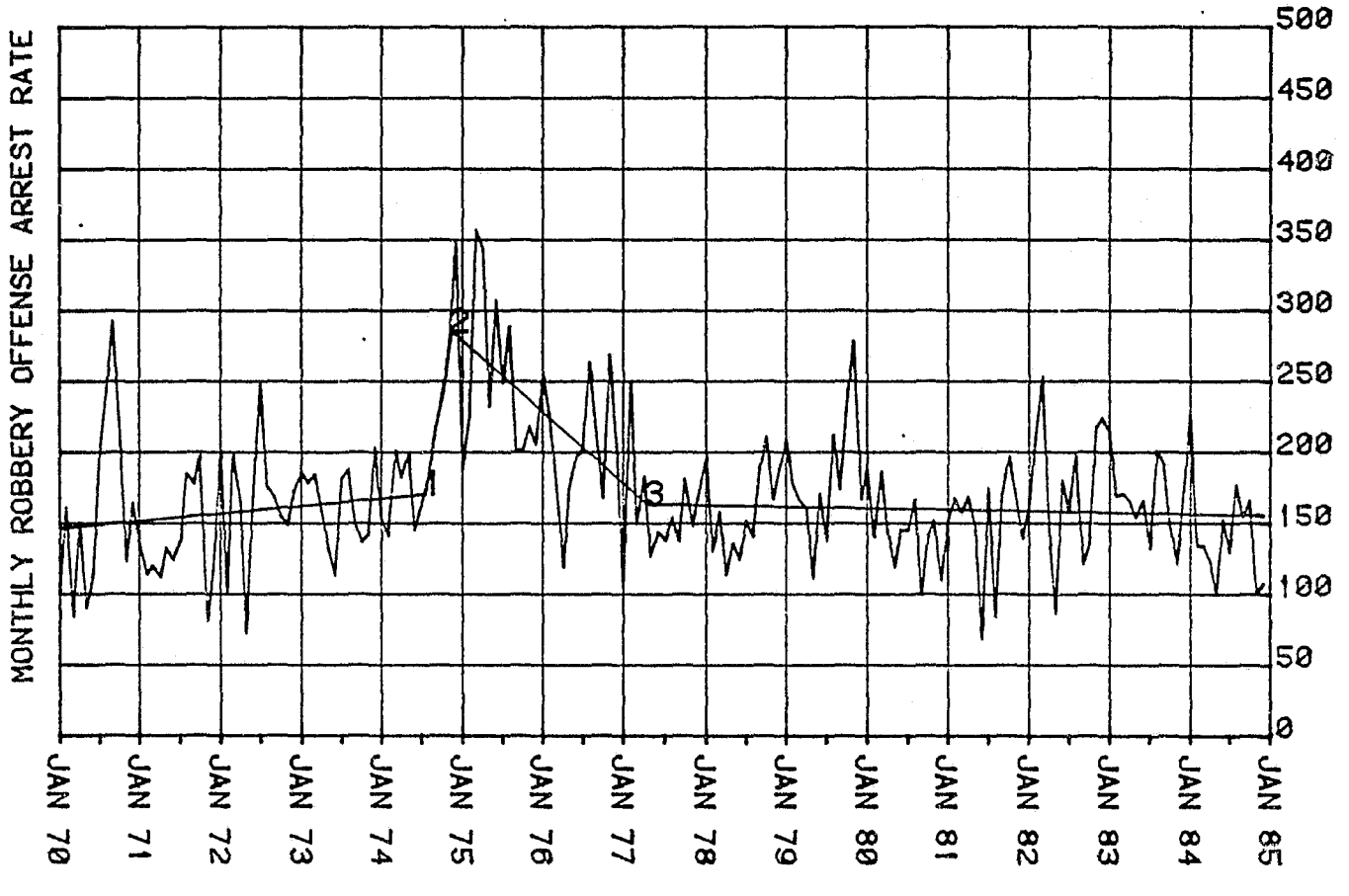
FIRST SLOPE = -0.04 PCT SS EXPLAINED = 0.41
Y ZERO INTERCEPT = 79.56

ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



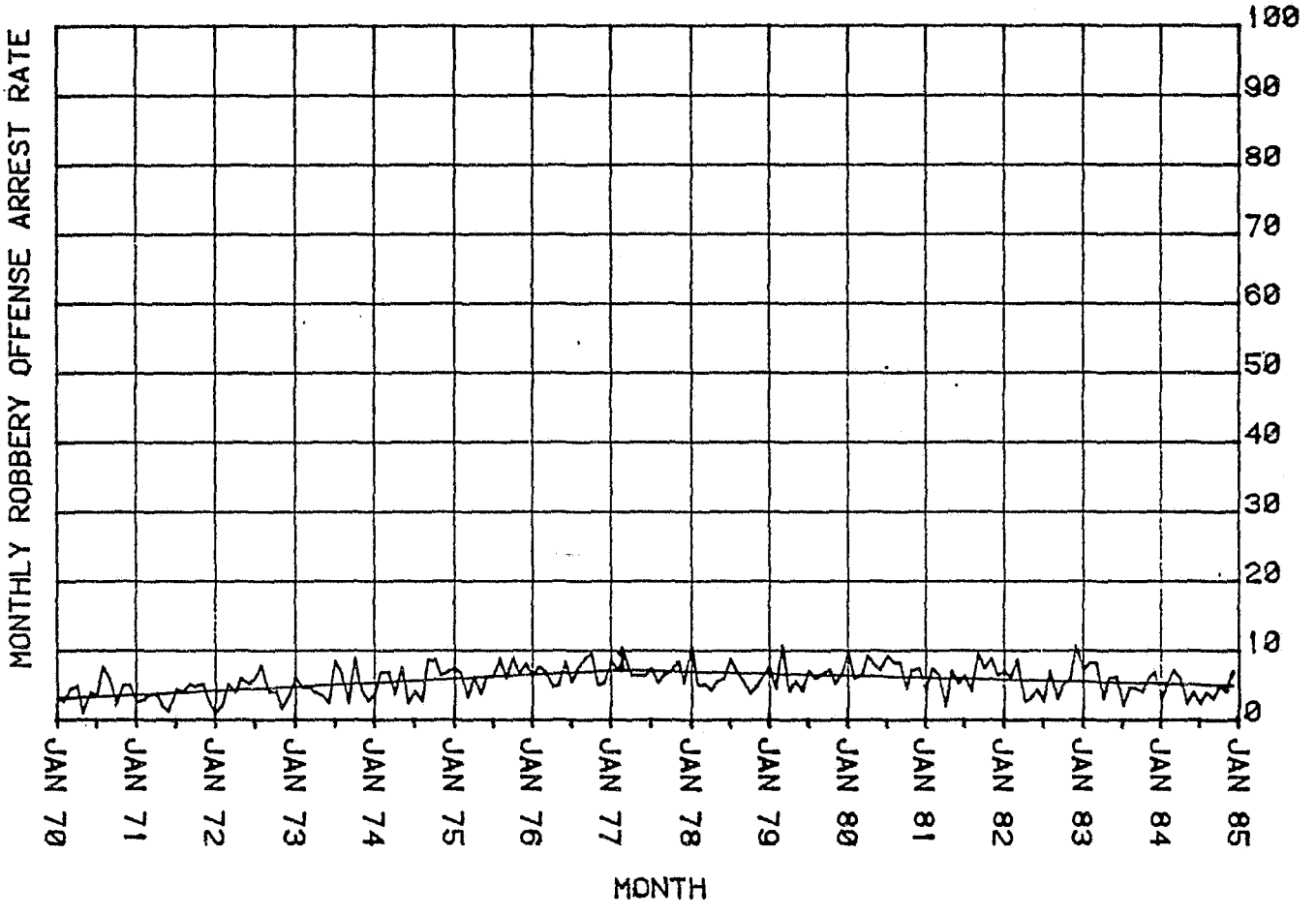
FIRST SLOPE =	0.10	FIRST TURNING POINT X:	12/76
Y ZERO INTERCEPT =	2.88	Y:	11.66
SECOND SLOPE =	-0.03	PCT SS EXPLAINED =	40.83
Y ZERO INTERCEPT =	14.48		

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.44	FIRST TURNING POINT X:	7/74
Y ZERO INTERCEPT =	145.89	Y:	170.53
SECOND SLOPE =	28.63	SECOND TURNING POINT X:	11/74
Y ZERO INTERCEPT =	-1418.46	Y:	285.05
THIRD SLOPE =	-4.20	THIRD TURNING POINT X:	4/77
Y ZERO INTERCEPT =	534.74	Y:	163.35
FOURTH SLOPE =	-0.09	PCT SS EXPLAINED =	34.52
Y ZERO INTERCEPT =	170.91		

ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	0.05	FIRST TURNING POINT X:	1/77
Y ZERO INTERCEPT =	3.07	Y:	7.23
SECOND SLOPE =	-0.02	PCT SS EXPLAINED =	24.01
Y ZERO INTERCEPT =	9.28		

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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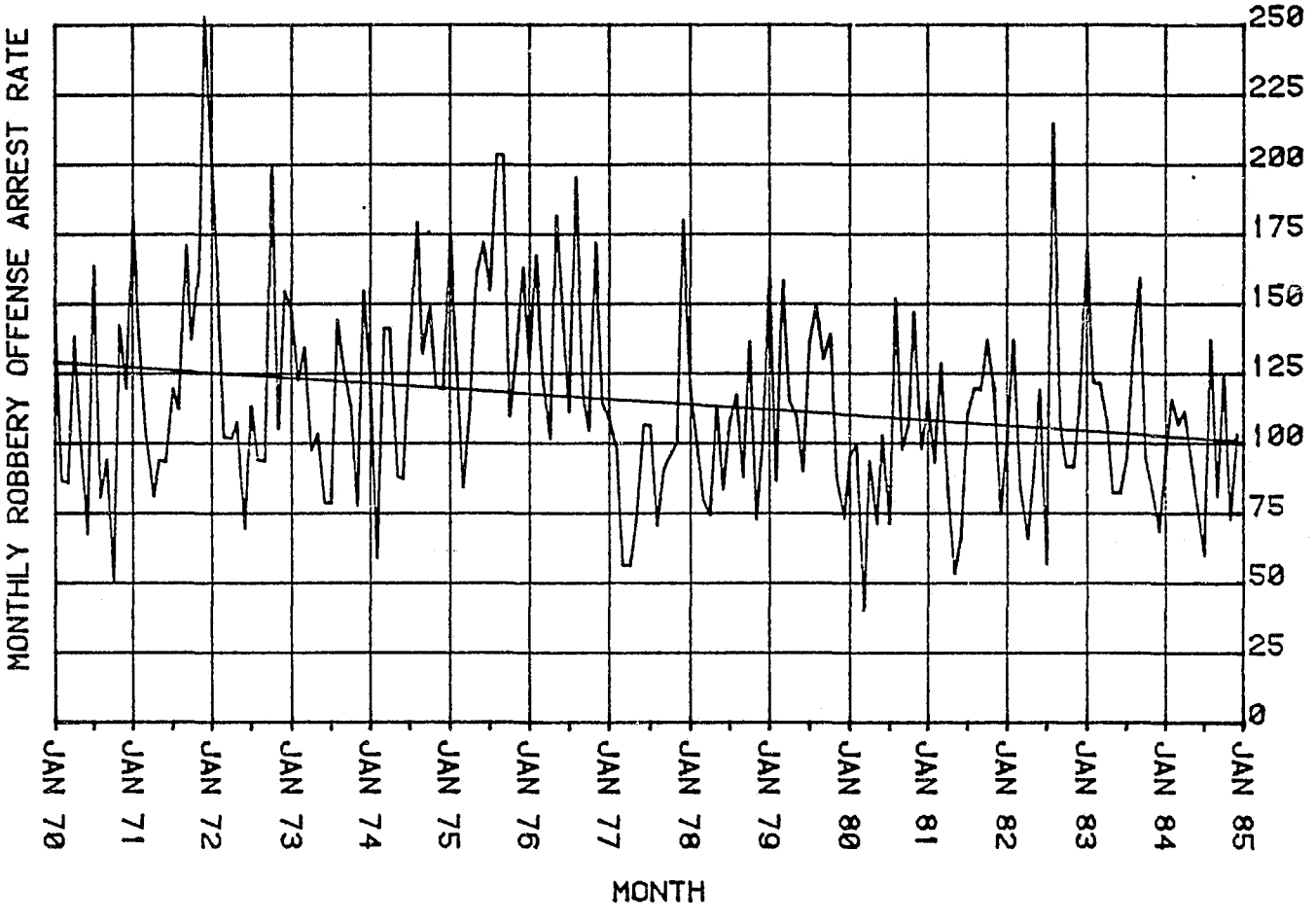
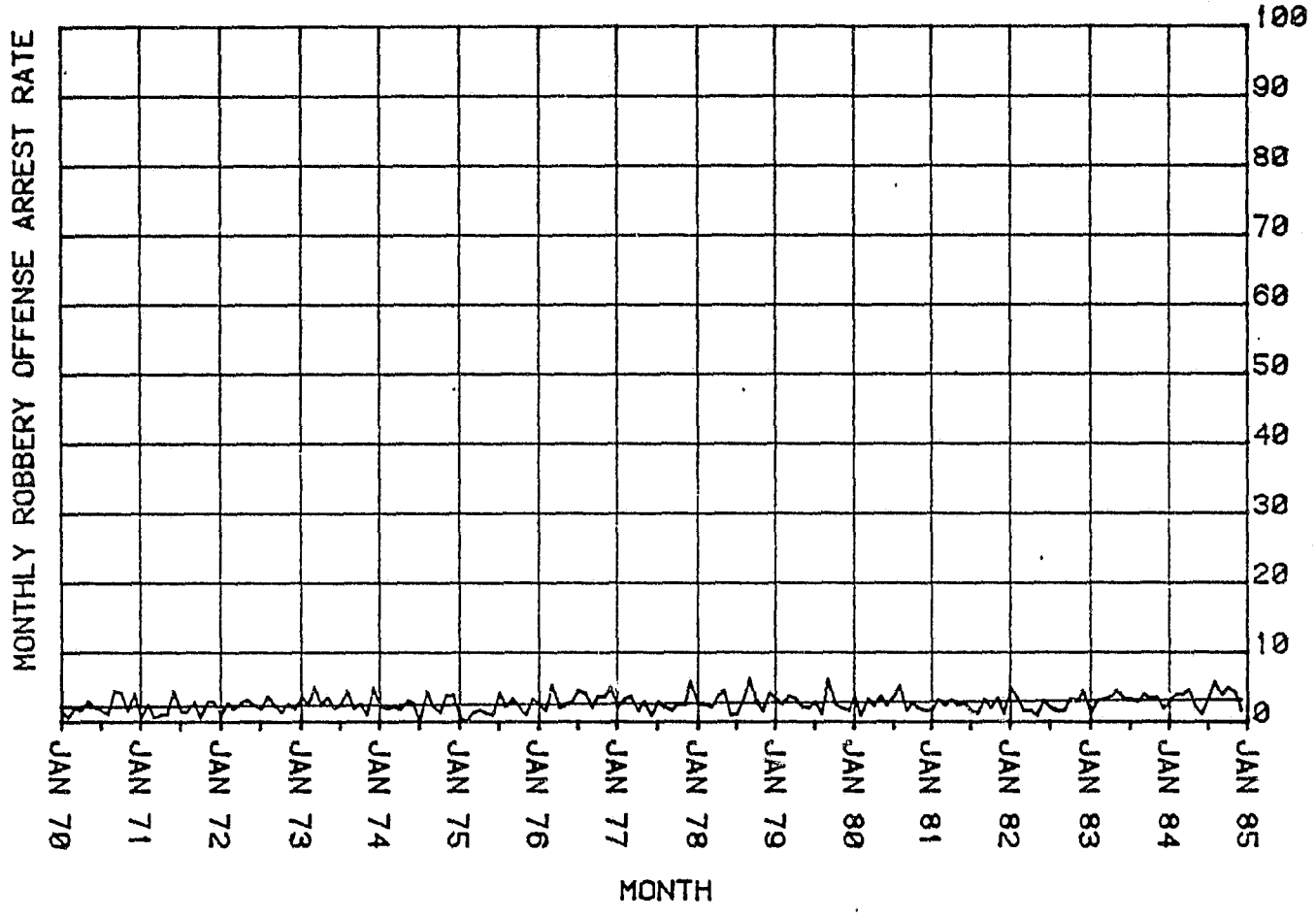


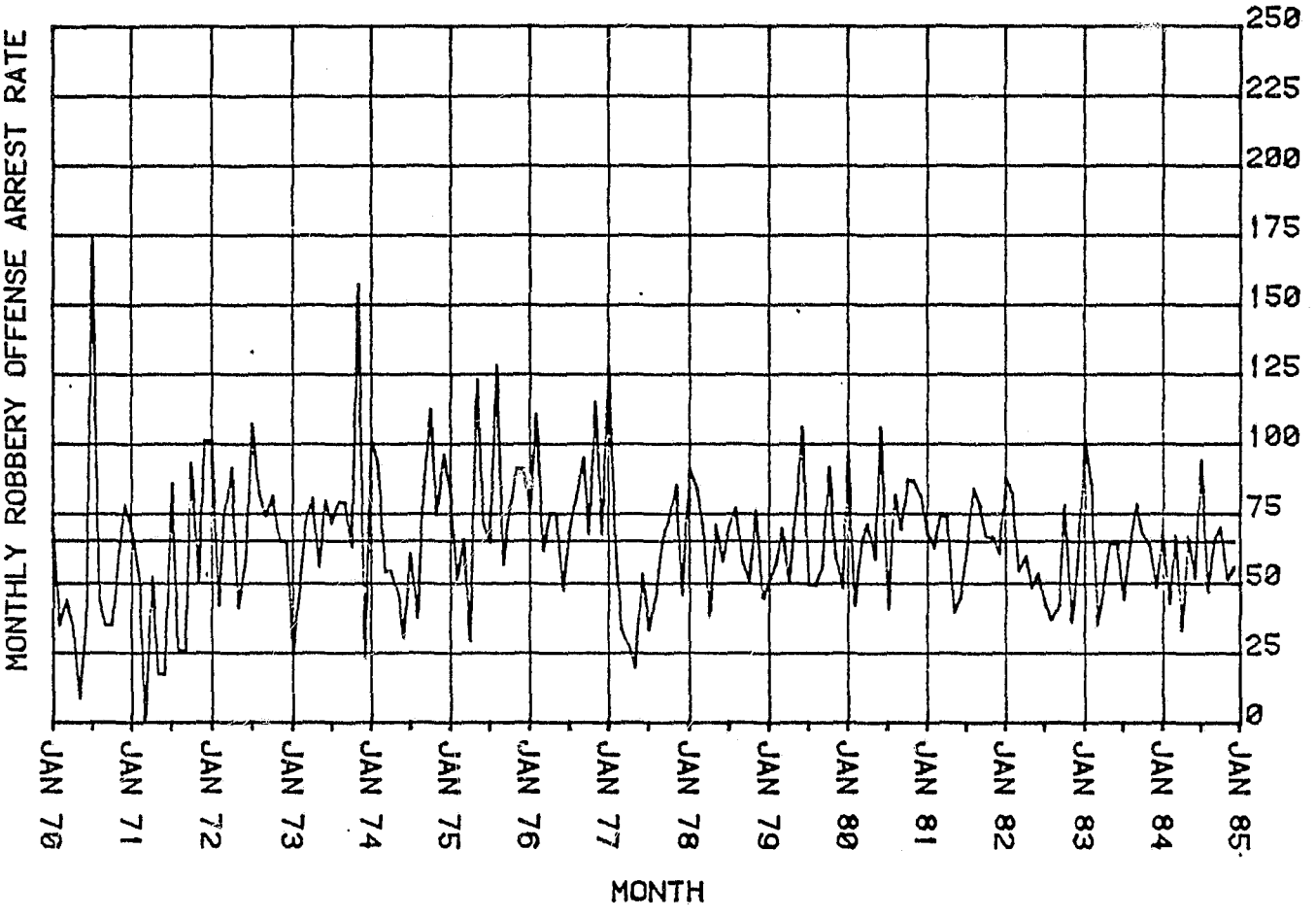
FIRST SLOPE = -0.16 PCT SS EXPLAINED = 5.12
Y ZERO INTERCEPT = 129.06

ROBBERY ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



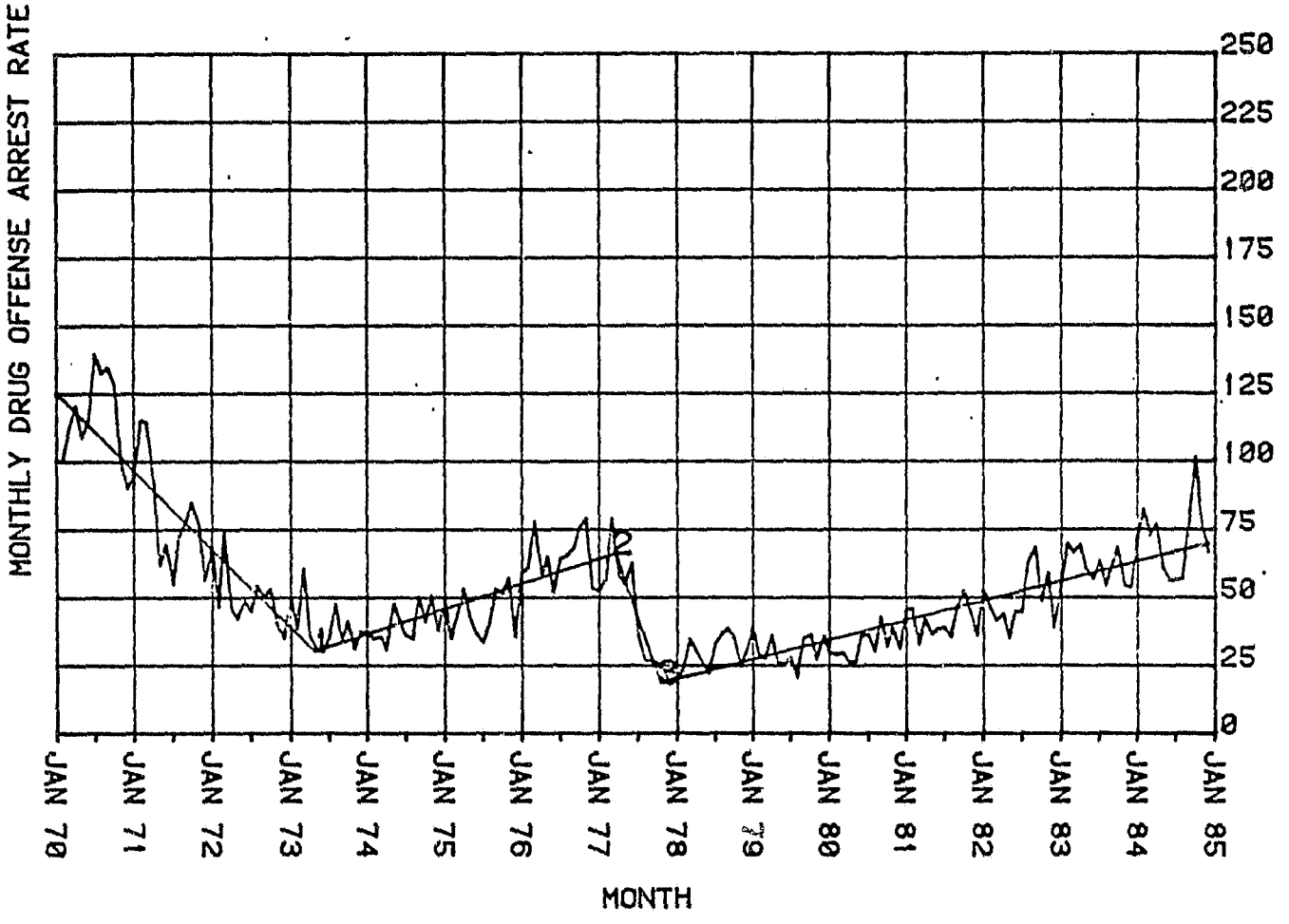
FIRST SLOPE = 0.01 PCT SS EXPLAINED = 5.30
Y ZERO INTERCEPT = 2.15

ROBBERY ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
UPSTATE NEW YORK COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE = 0.00 PCT SS EXPLAINED = 0.00
Y ZERO INTERCEPT = 65.34

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	-2.40		FIRST TURNING POINT	X:	4/73
Y ZERO INTERCEPT =	127.51			Y:	30.40
SECOND SLOPE =	0.77		SECOND TURNING POINT	X:	3/77
Y ZERO INTERCEPT =	-0.62			Y:	66.40
THIRD SLOPE =	-6.82		THIRD TURNING POINT	X:	10/77
Y ZERO INTERCEPT =	663.56			Y:	18.62
FOURTH SLOPE =	0.60		PCT SS EXPLAINED =		82.35
Y ZERO INTERCEPT =	-38.16				

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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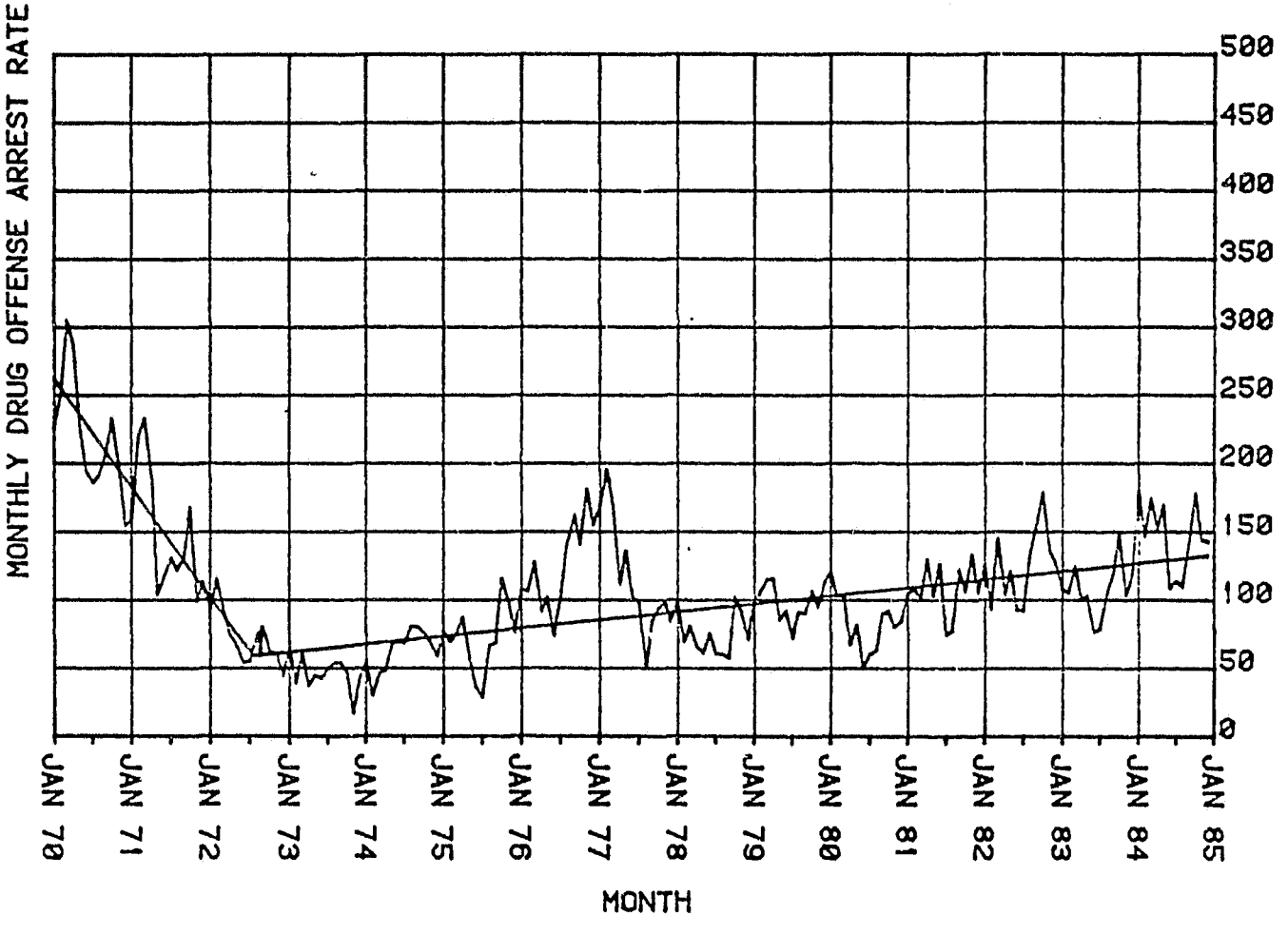
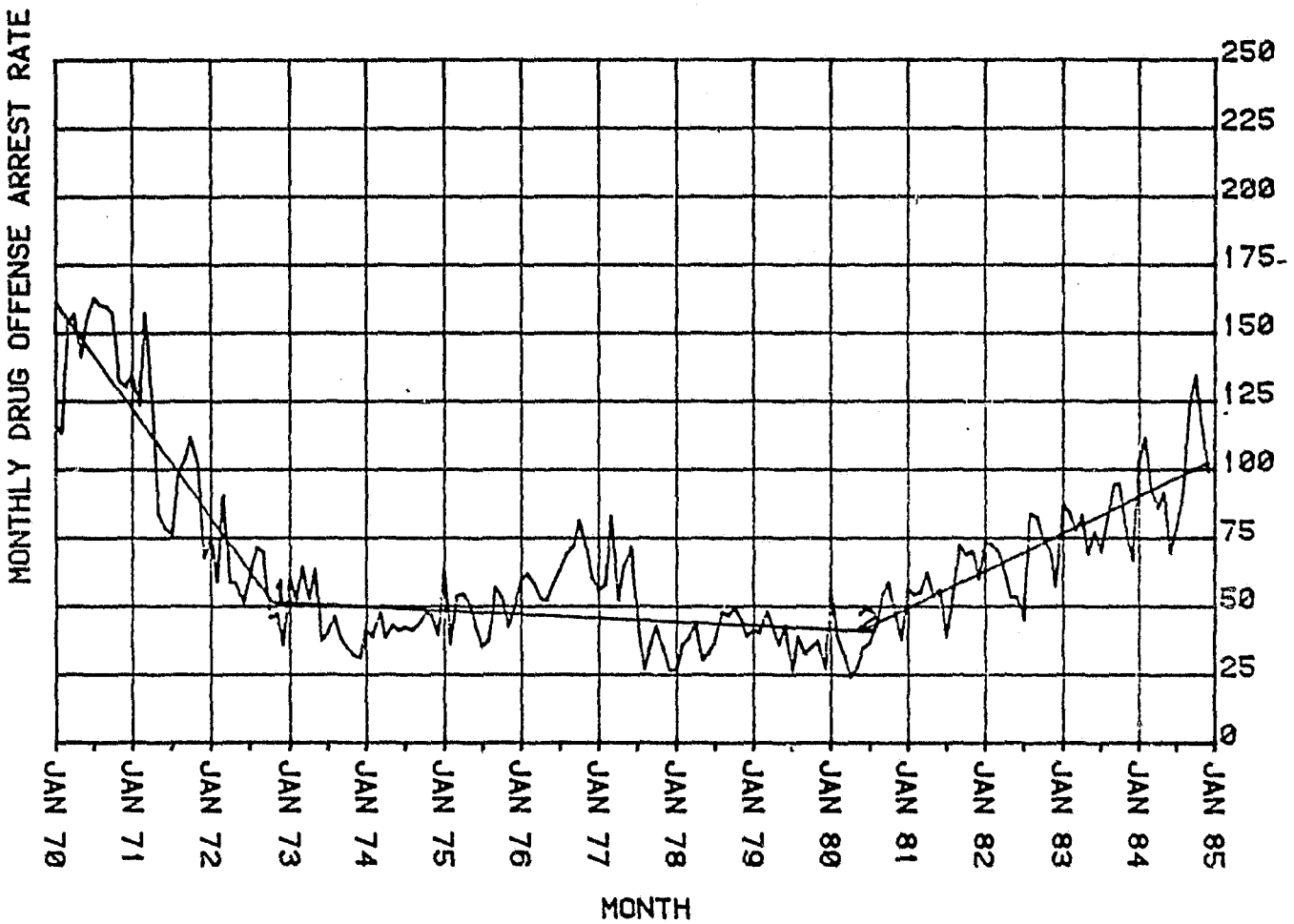


FIRST SLOPE =	-6.65	FIRST TURNING POINT X:	7/72
Y ZERO INTERCEPT =	268.33	Y:	58.79
SECOND SLOPE =	0.50	PCT SS EXPLAINED =	64.91
Y ZERO INTERCEPT =	43.11		

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	-3.29
Y ZERO INTERCEPT =	164.68
SECOND SLOPE =	-0.11
Y ZERO INTERCEPT =	54.95
THIRD SLOPE =	1.13
Y ZERO INTERCEPT =	-101.31

FIRST TURNING POINT X:	10/72
Y:	51.13
SECOND TURNING POINT X:	5/80
Y:	41.03
PCT SS EXPLAINED =	81.03

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
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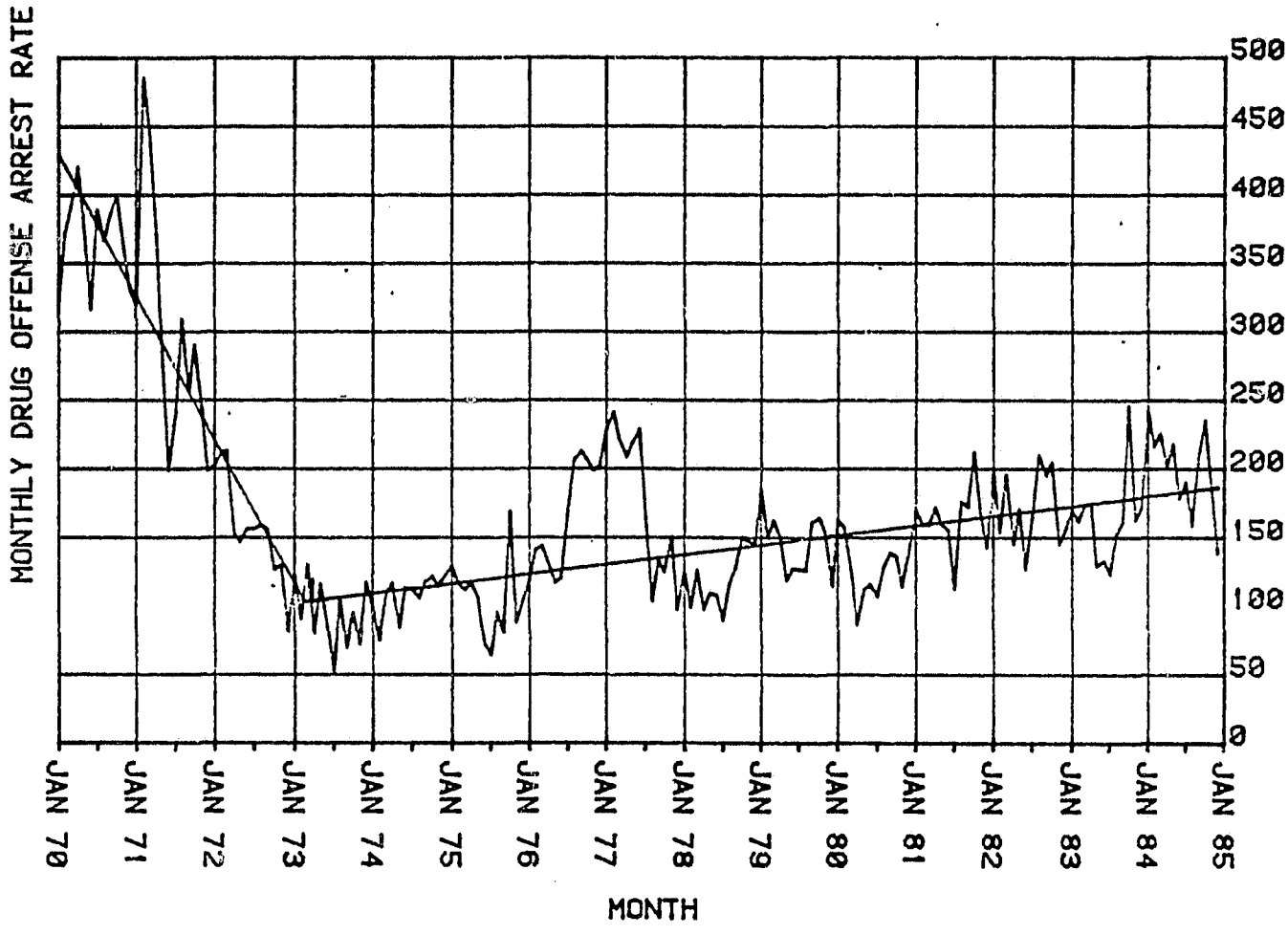
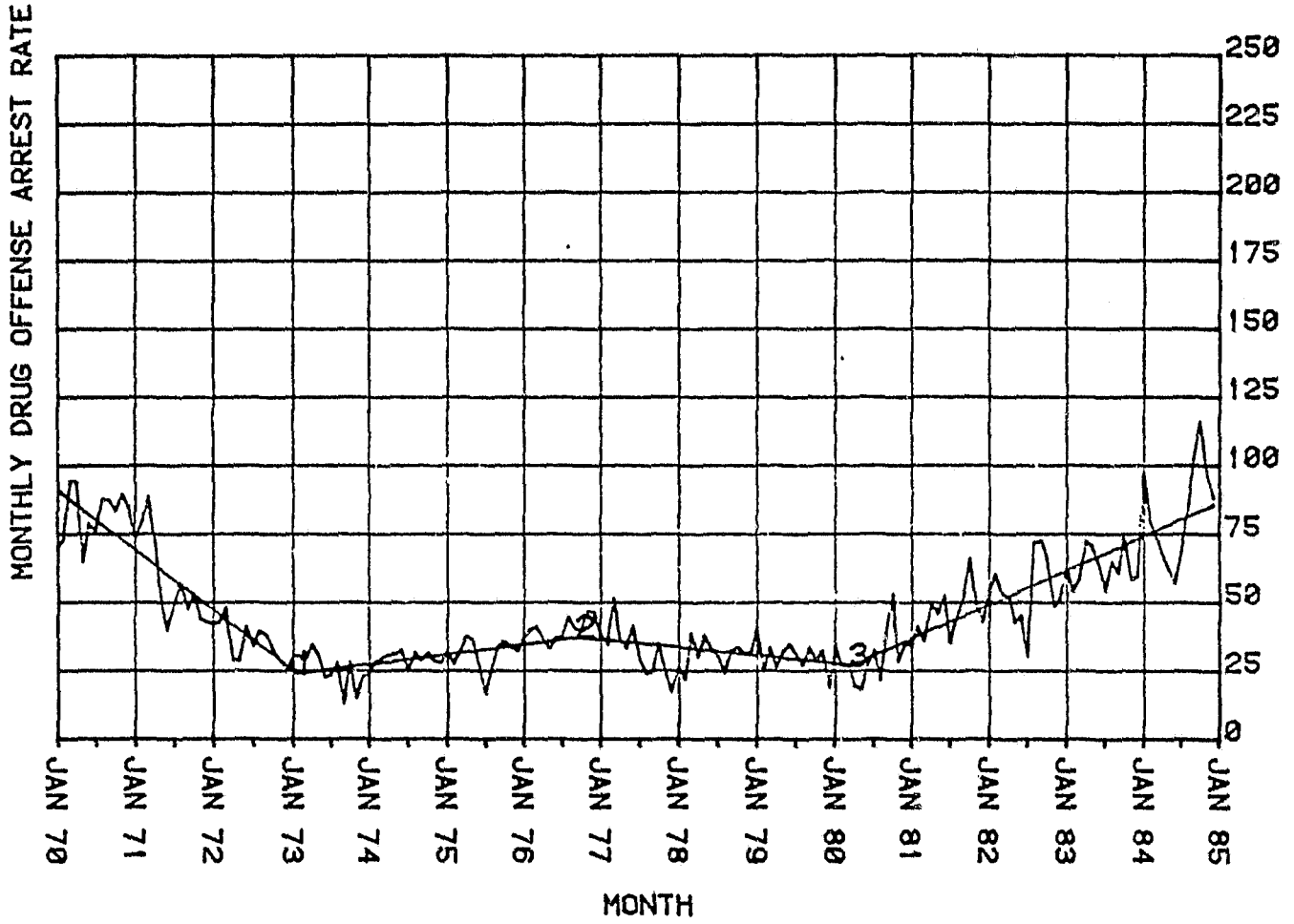


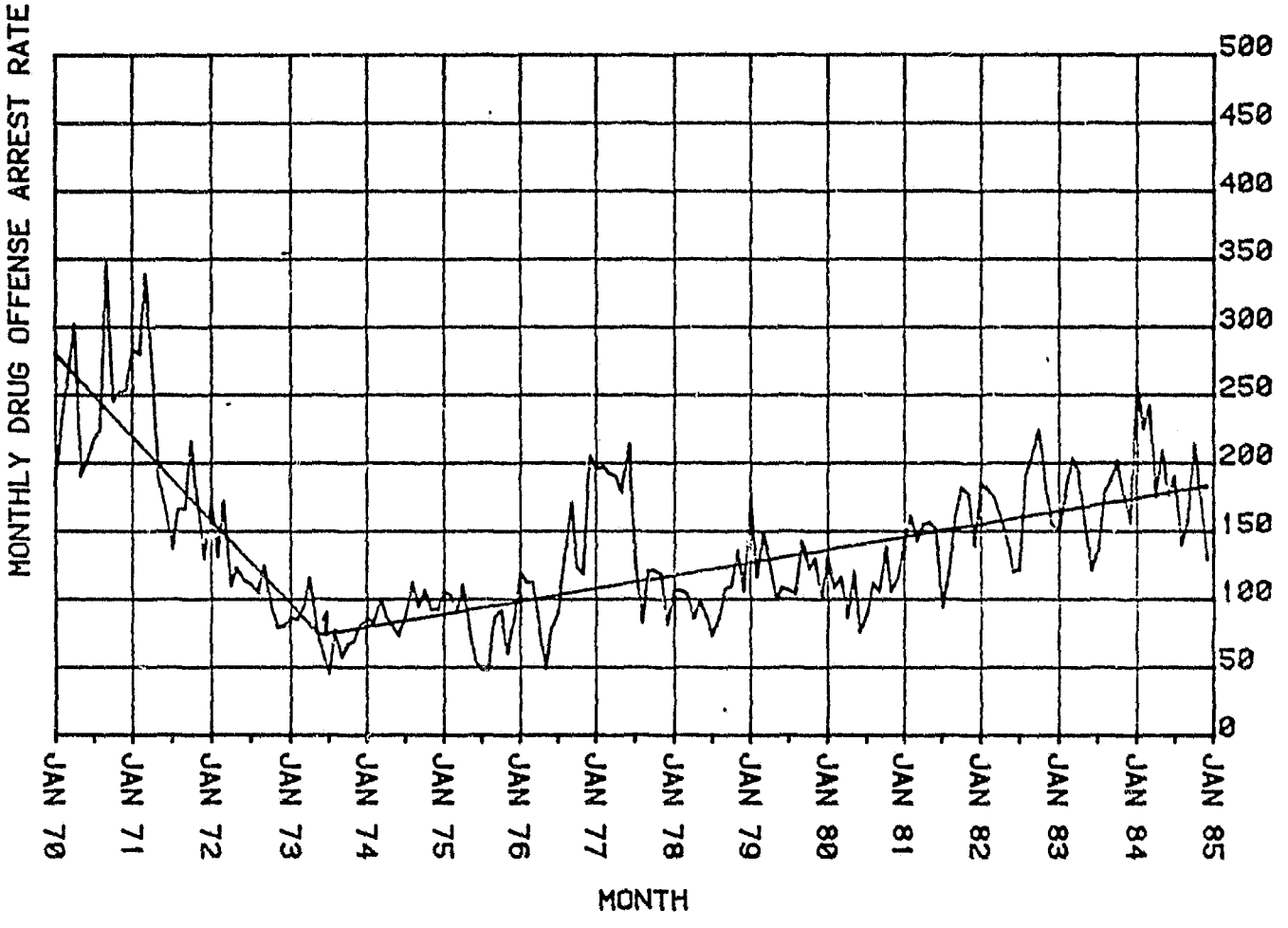
FIRST SLOPE =	-8.71	FIRST TURNING POINT X:	2/73
Y ZERO INTERCEPT =	438.95	Y:	103.58
SECOND SLOPE =	0.59	PCT SS EXPLAINED =	76.18
Y ZERO INTERCEPT =	81.01		

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	-1.84	FIRST TURNING POINT X:	1/73
Y ZERO INTERCEPT =	92.73	Y:	23.91
SECOND SLOPE =	0.30	SECOND TURNING POINT X:	9/76
Y ZERO INTERCEPT =	12.51	Y:	37.29
THIRD SLOPE =	-0.25	THIRD TURNING POINT X:	3/80
Y ZERO INTERCEPT =	57.71	Y:	26.77
FOURTH SLOPE =	1.04	PCT SS EXPLAINED =	81.36
Y ZERO INTERCEPT =	-102.08		

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
NEW YORK CITY
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	-5.10	FIRST TURNING POINT X:	5/73
Y ZERO INTERCEPT =	285.27	Y:	73.78
SECOND SLOPE =	0.79	PCT SS EXPLAINED =	61.10
Y ZERO INTERCEPT =	41.02		

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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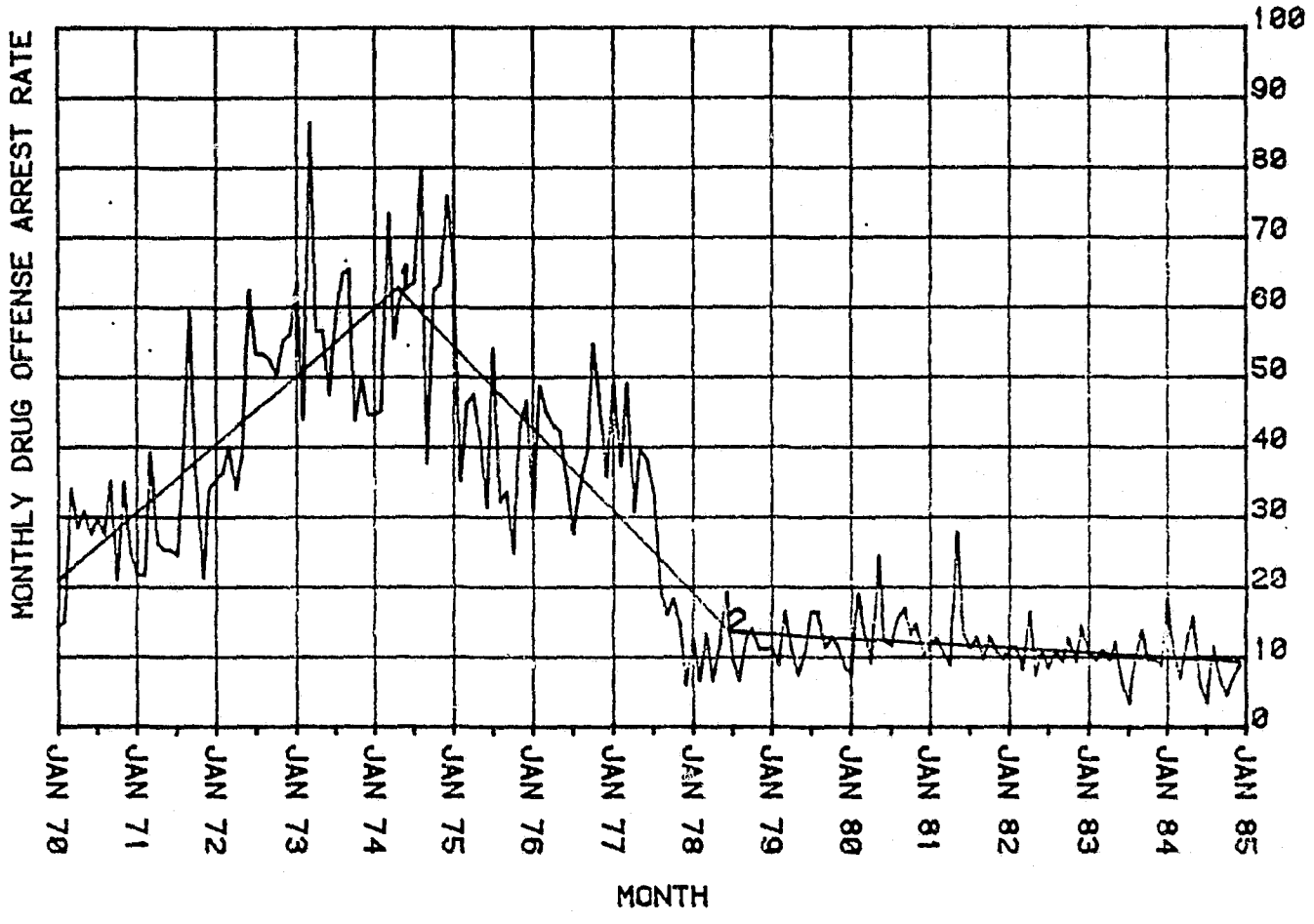

FIRST SLOPE =	0.81
Y ZERO INTERCEPT =	20.24
SECOND SLOPE =	-0.98
Y ZERO INTERCEPT =	114.45
THIRD SLOPE =	-0.06
Y ZERO INTERCEPT =	19.20

FIRST TURNING POINT X:	4/74
Y:	62.77
SECOND TURNING POINT X:	6/78
Y:	13.56
PCT SS EXPLAINED =	81.29

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
SUBURBAN NEW YORK CITY COUNTIES
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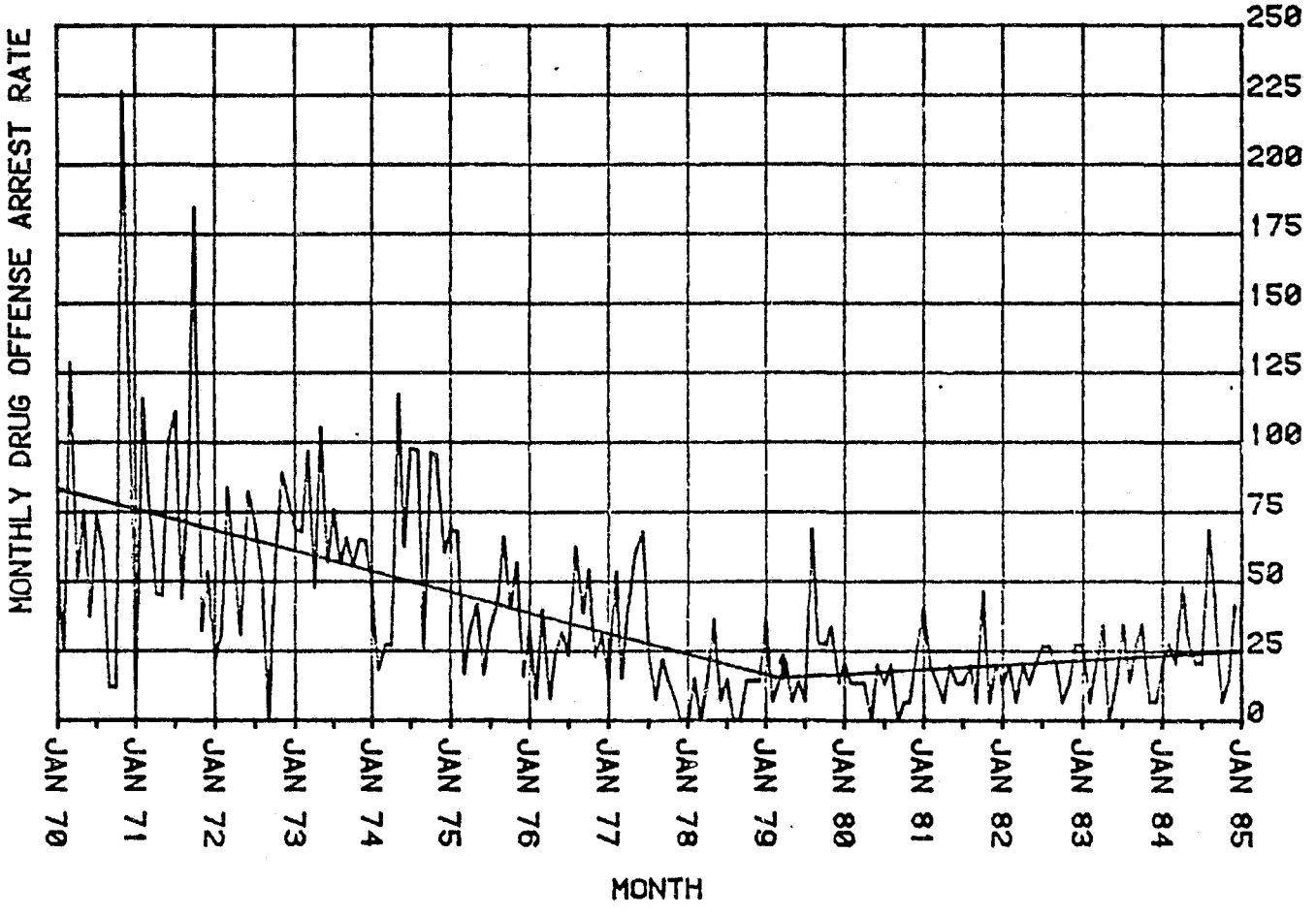

FIRST SLOPE =	-0.62
Y ZERO INTERCEPT =	83.98
SECOND SLOPE =	0.14
Y ZERO INTERCEPT =	-0.25

FIRST TURNING POINT X: 2/79
Y: 15.24
PCT SS EXPLAINED = 38.33

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
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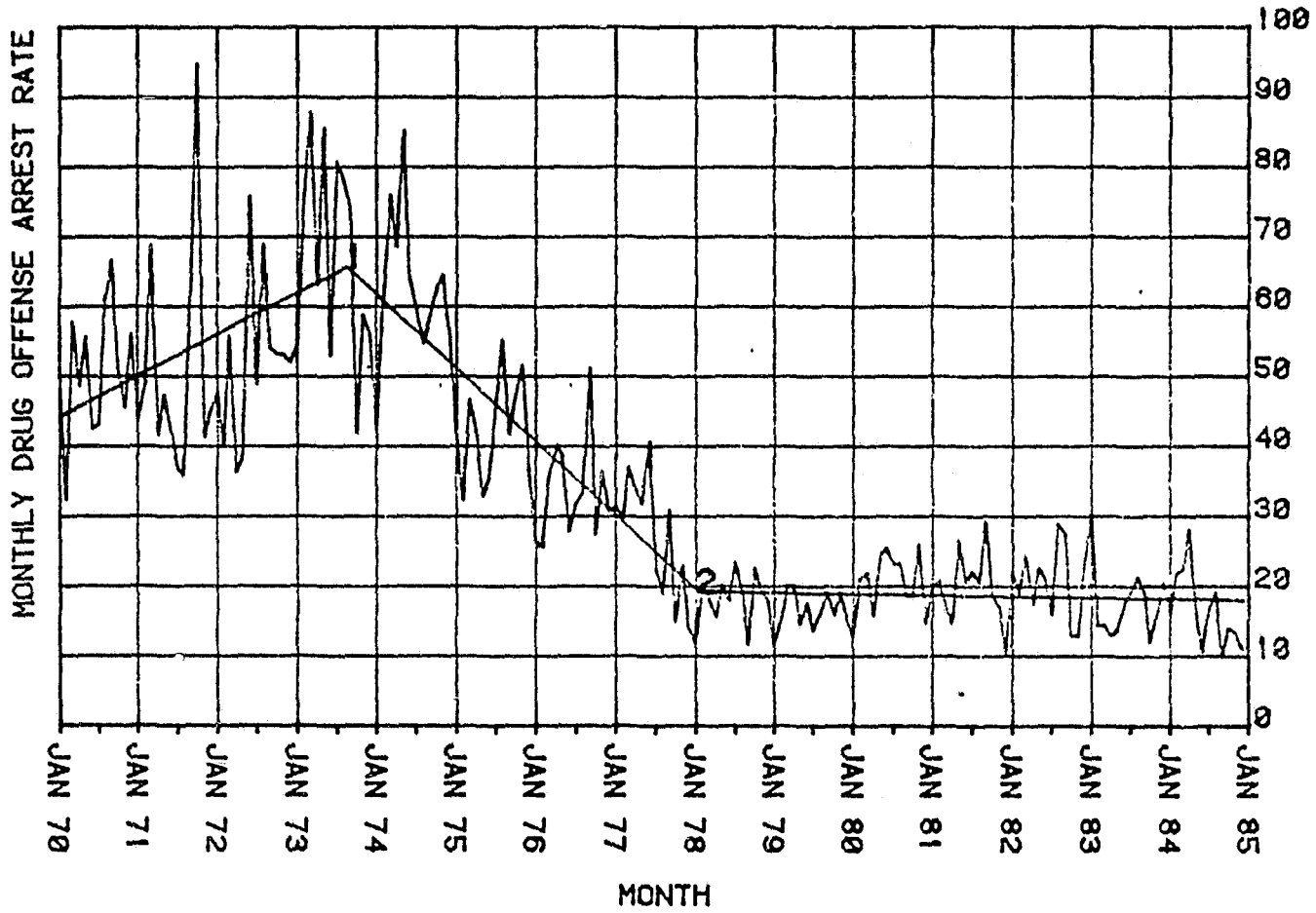
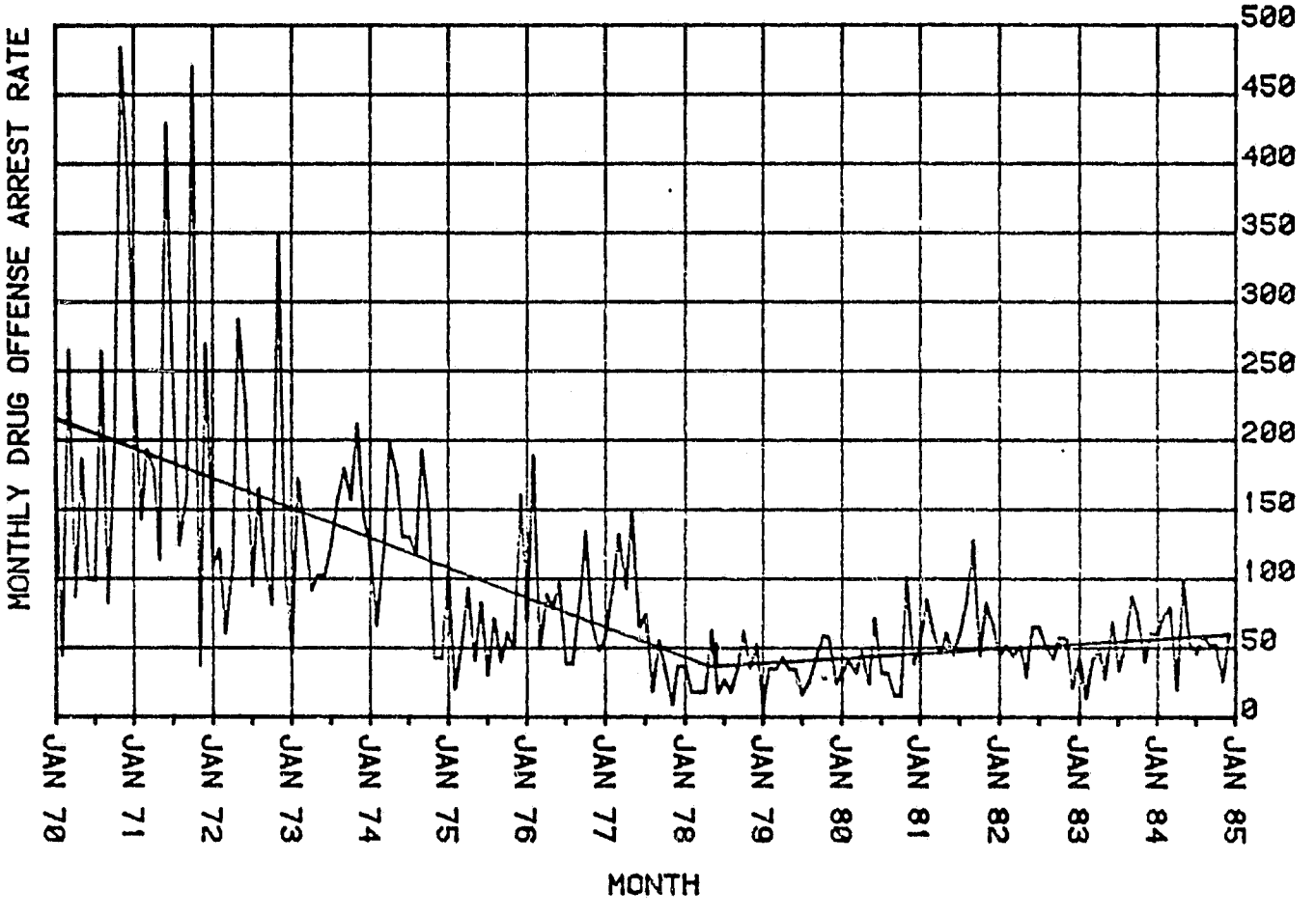


FIRST	SLOPE =	0.49	FIRST TURNING POINT	X:	8/73
Y ZERO	INTERCEPT =	43.87		Y:	65.71
SECOND	SLOPE =	-0.88	SECOND TURNING POINT	X:	1/78
Y ZERO	INTERCEPT =	104.78		Y:	19.18
THIRD	SLOPE =	-0.01	PCT SS EXPLAINED =		78.53
Y ZERO	INTERCEPT =	20.53			

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
SUBURBAN NEW YORK CITY COUNTIES
JANUARY 1, 1970 THROUGH DECEMBER 31, 1984
NEW YORK STATE DIVISION OF CRIMINAL JUSTICE SERVICES
COMPUTERIZED CRIMINAL HISTORY DATABASE



FIRST SLOPE =	-1.79
Y ZERO INTERCEPT =	216.89
SECOND SLOPE =	0.30
Y ZERO INTERCEPT =	6.65

FIRST TURNING POINT X: 4/78
Y: 36.52
PCT SS EXPLAINED = 45.21

DRUG ARREST RATE PER 100,000 PCP, WHITE MALES, AGES 25 THROUGH 29
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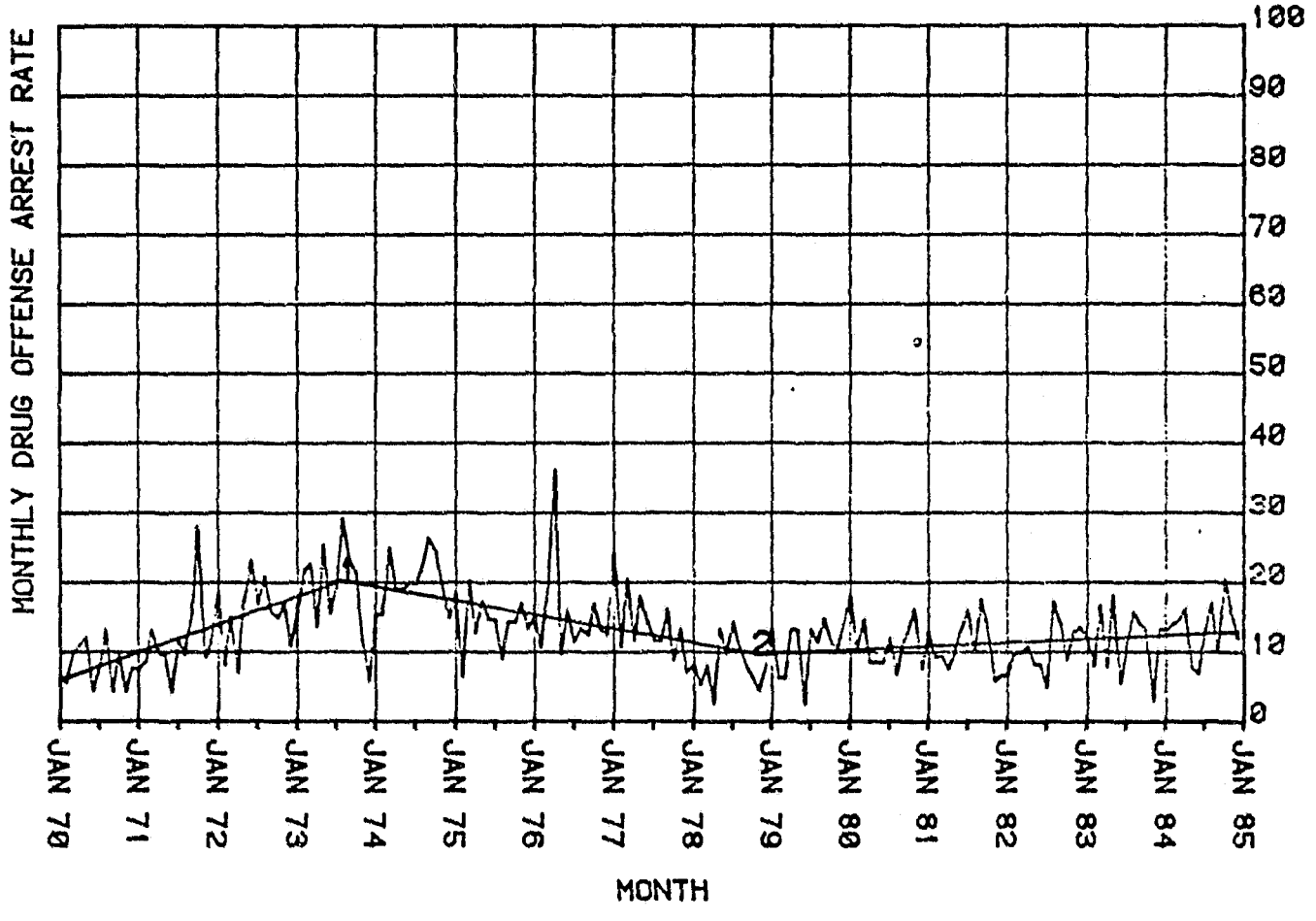

FIRST SLOPE =	0.34	FIRST TURNING POINT	X:	7/73
Y ZERO INTERCEPT =	5.61		Y:	20.27
SECOND SLOPE =	-0.17	SECOND TURNING POINT	X:	10/78
Y ZERO INTERCEPT =	27.58		Y:	9.69
THIRD SLOPE =	0.04	PCT SS EXPLAINED =		34.00
Y ZERO INTERCEPT =	5.12			

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 25 THROUGH 29
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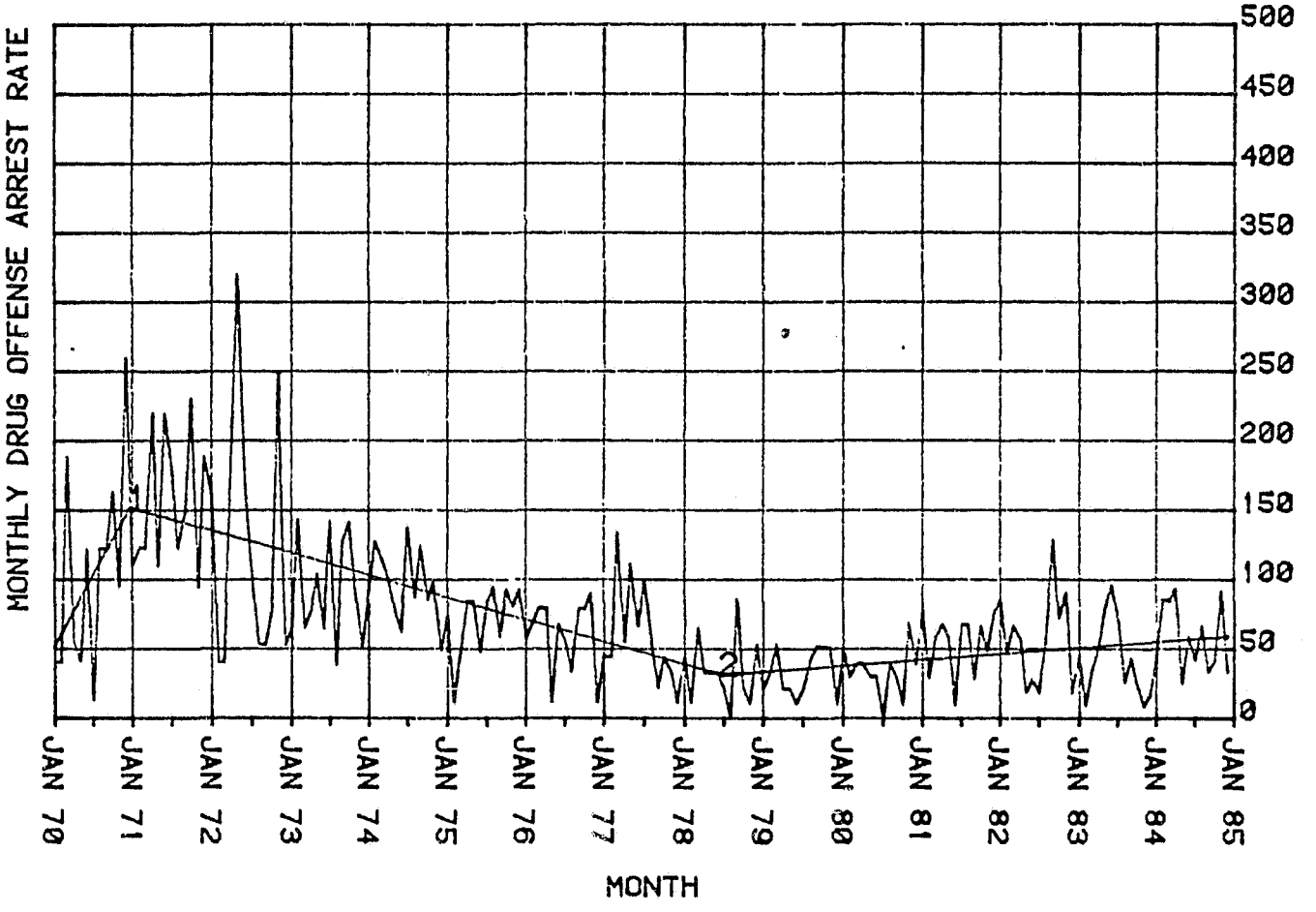

FIRST SLOPE =	8.64
Y ZERO INTERCEPT =	43.95
SECOND SLOPE =	-1.35
Y ZERO INTERCEPT =	168.82
THIRD SLOPE =	0.37
Y ZERO INTERCEPT =	-6.50

FIRST TURNING POINT X:	12/70
Y:	152.01
SECOND TURNING POINT X:	6/78
Y:	30.96
PCT SS EXPLAINED =	44.80

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 16 THROUGH 19
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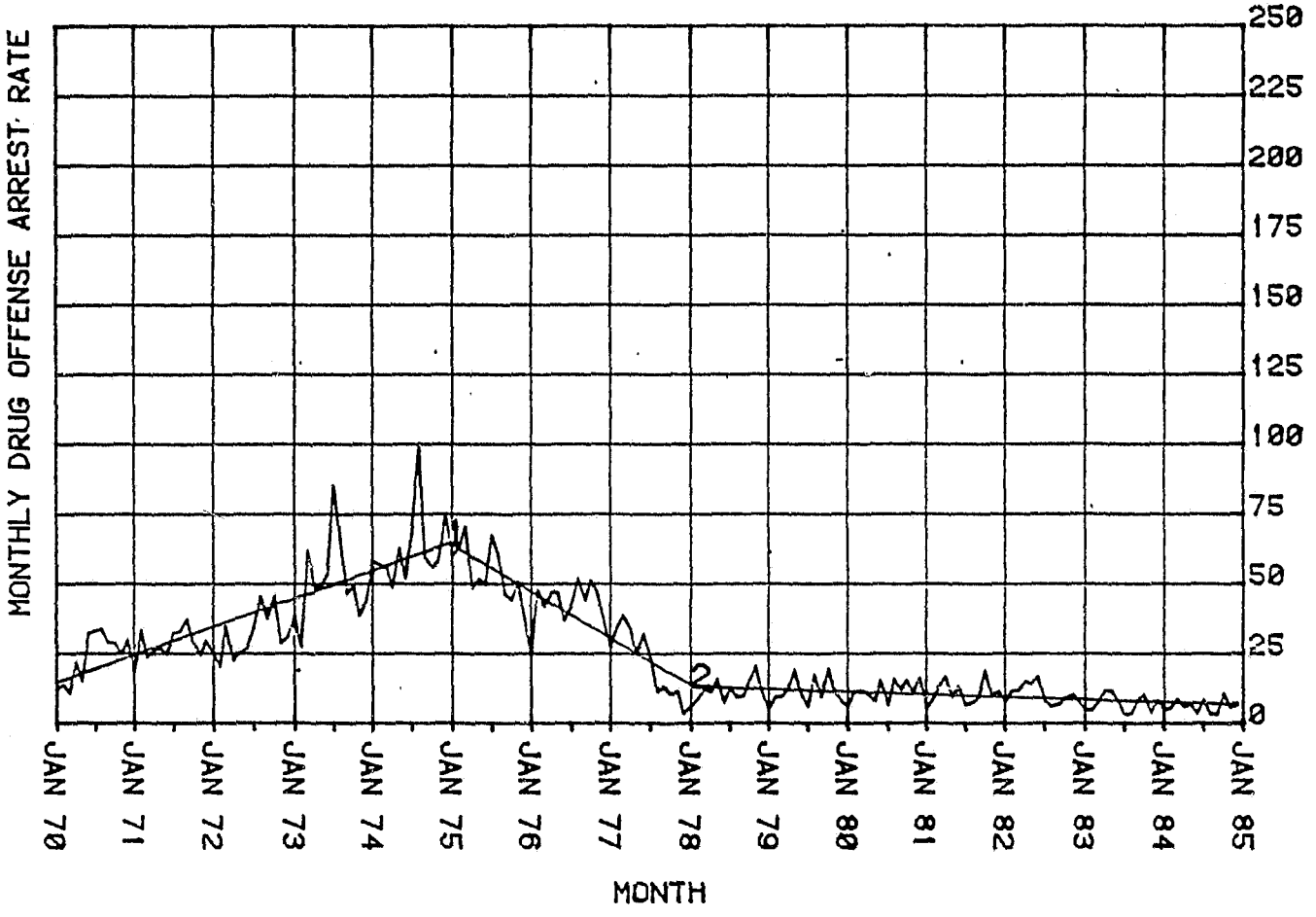

FIRST SLOPE =	0.84		FIRST TURNING POINT X:	12/74
Y ZERO INTERCEPT =	13.64		Y:	64.58
SECOND SLOPE =	-1.39		SECOND TURNING POINT X:	1/78
Y ZERO INTERCEPT =	148.57		Y:	13.21
THIRD SLOPE =	-0.08		PCT SS EXPLAINED =	84.62
Y ZERO INTERCEPT =	20.88			

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 16 THROUGH 19
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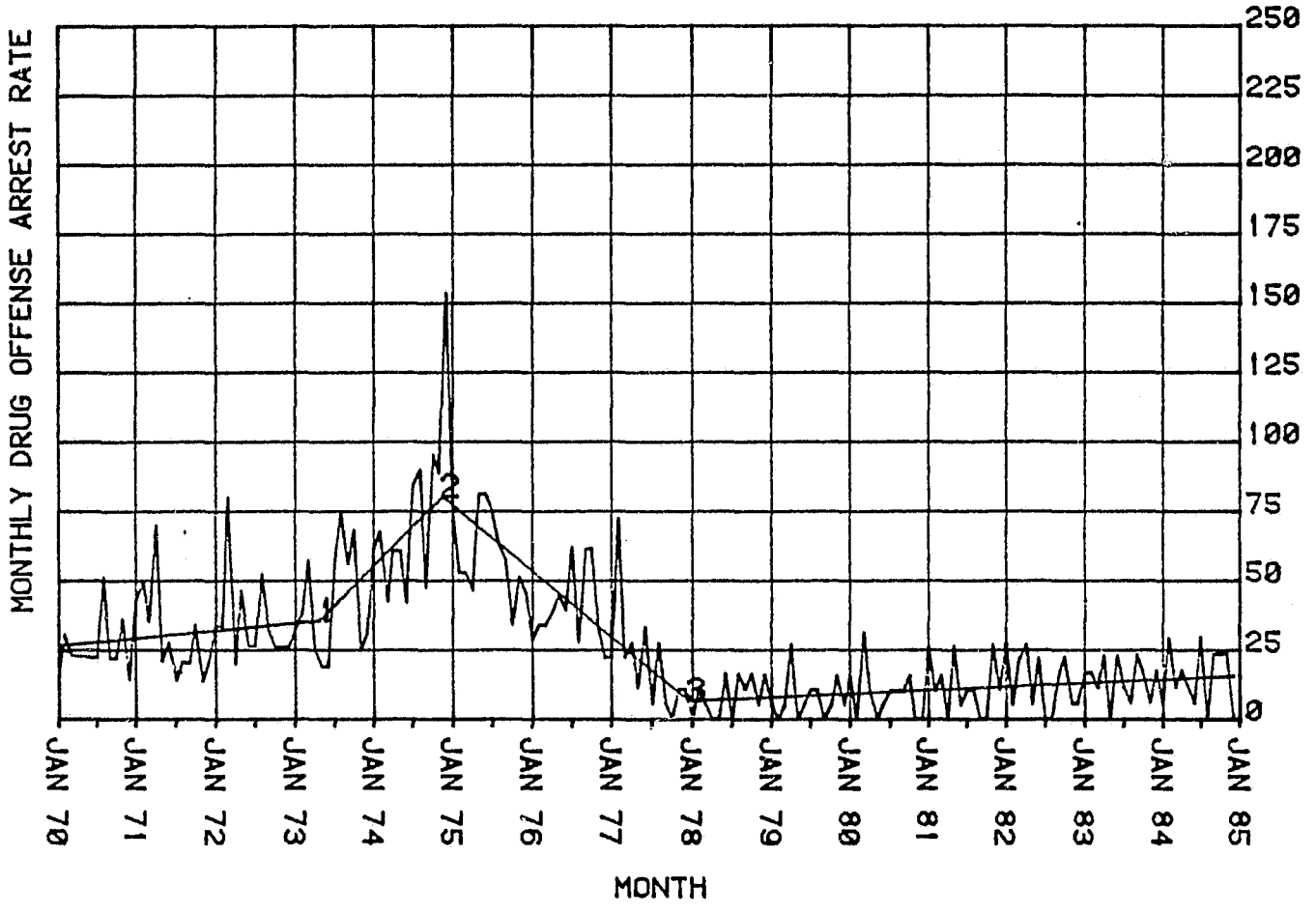

FIRST	SLOPE =	0.23	FIRST	TURNING POINT	X: 4/73
Y ZERO	INTERCEPT =	26.41			Y: 35.66
SECOND	SLOPE =	2.35	SECOND	TURNING POINT	X:11/74
Y ZERO	INTERCEPT =	-59.38			Y: 80.25
THIRD	SLOPE =	-1.98	THIRD	TURNING POINT	X:12/77
Y ZERO	INTERCEPT =	198.23			Y: 6.88
FOURTH	SLOPE =	0.11	PCT SS	EXPLAINED =	66.42
Y ZERO	INTERCEPT =	-3.41			

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 20 THROUGH 24
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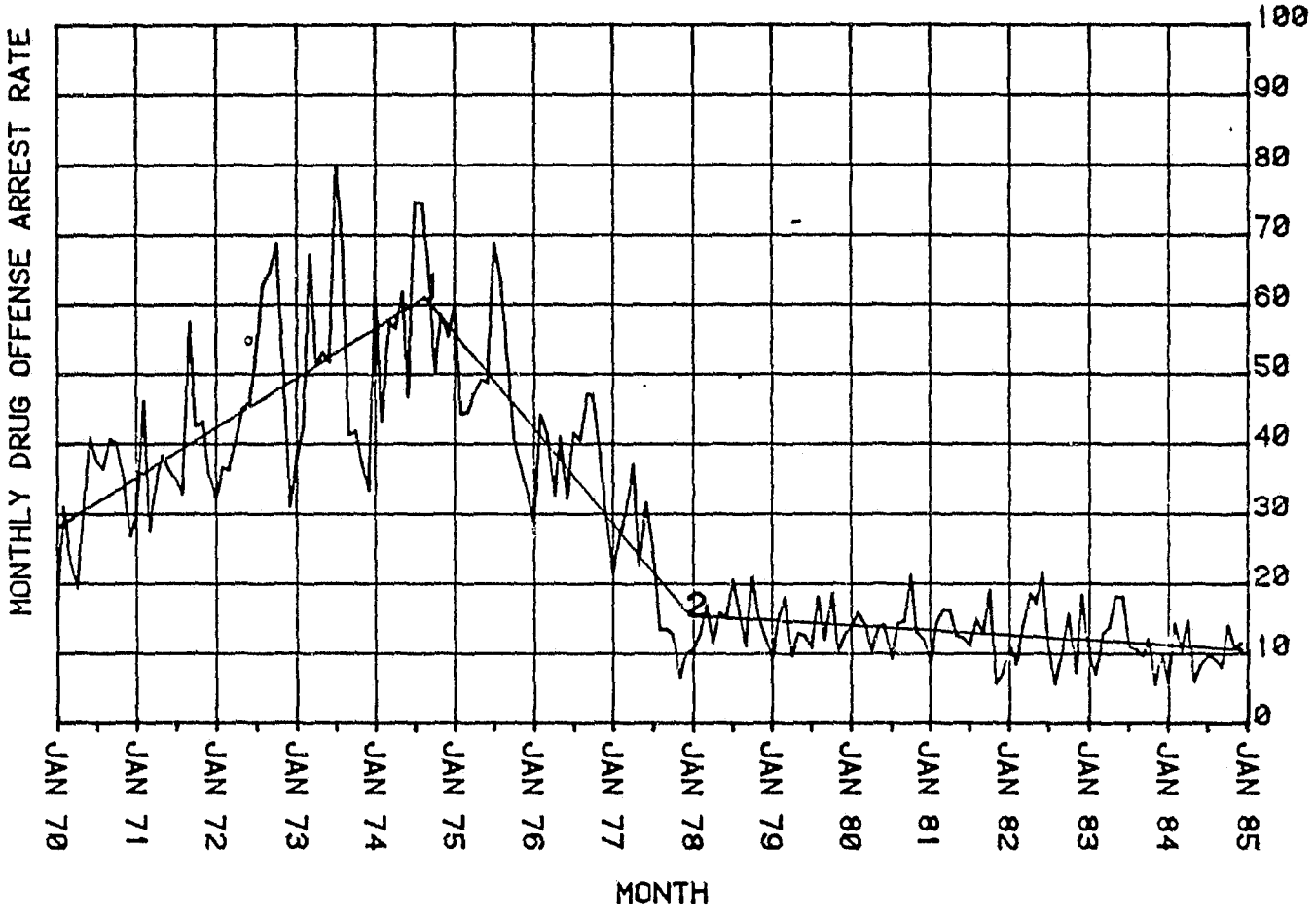

FIRST SLOPE =	0.59
Y ZERO INTERCEPT =	27.53
SECOND SLOPE =	-1.14
Y ZERO INTERCEPT =	125.68
THIRD SLOPE =	-0.06
Y ZERO INTERCEPT =	20.97

FIRST TURNING POINT X:	8/74
Y:	61.09
SECOND TURNING POINT X:	12/77
Y:	15.36
PCT SS EXPLAINED =	83.62

DRUG ARREST RATE PER 100,000 POP, NONWHITE MALES, AGES 20 THROUGH 24
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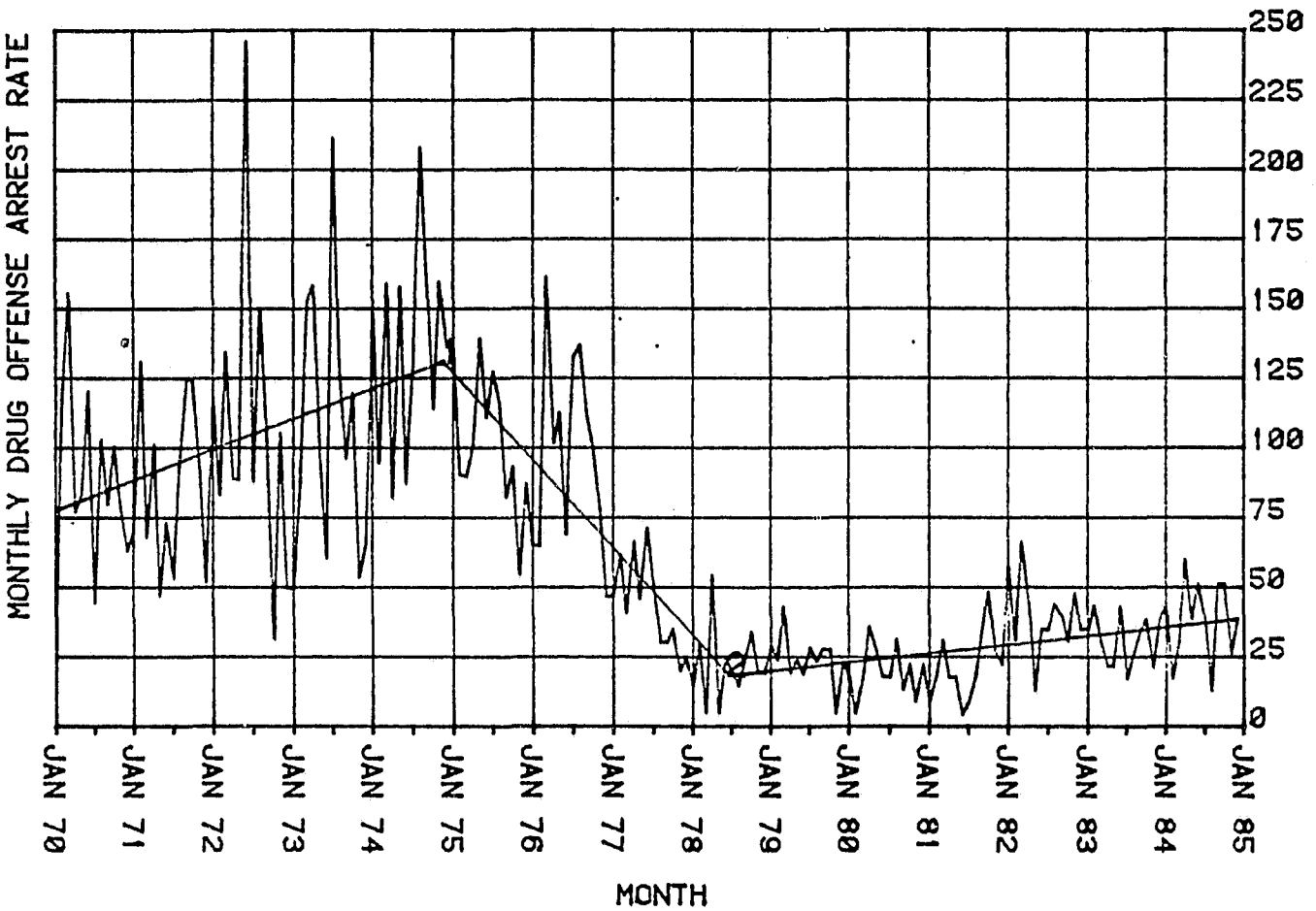

FIRST SLOPE =	0.91	FIRST TURNING POINT X:	11/74
Y ZERO INTERCEPT =	76.83	Y:	130.91
SECOND SLOPE =	-2.62	SECOND TURNING POINT X:	6/78
Y ZERO INTERCEPT =	286.66	Y:	18.36
THIRD SLOPE =	0.26	PCT SS EXPLAINED =	64.71
Y ZERO INTERCEPT =	-8.37		

DRUG ARREST RATE PER 100,000 POP, WHITE MALES, AGES 25 THROUGH 29
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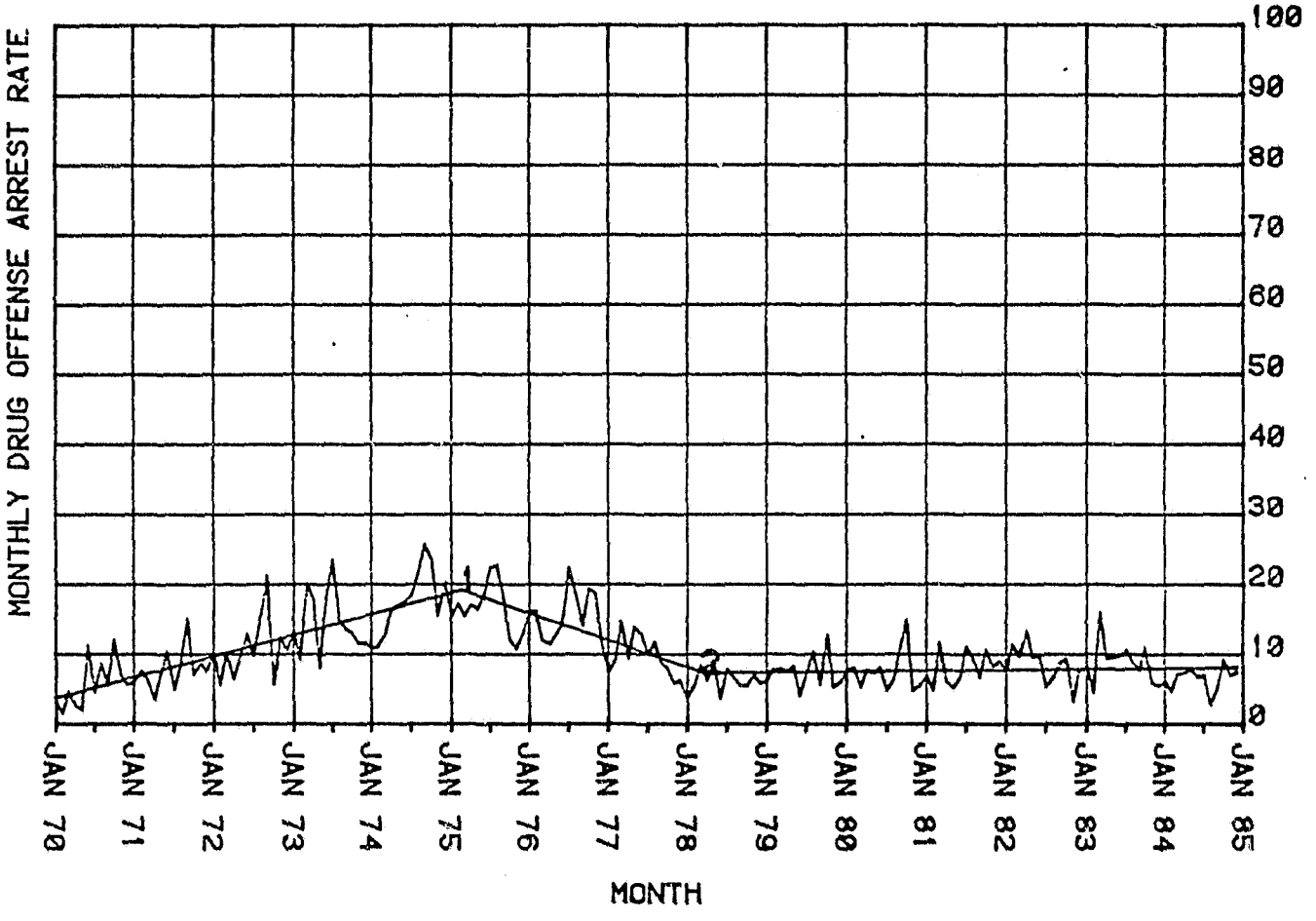

FIRST SLOPE =	0.25
Y ZERO INTERCEPT =	3.50
SECOND SLOPE =	-0.32
Y ZERO INTERCEPT =	39.52
THIRD SLOPE =	0.01
Y ZERO INTERCEPT =	6.23

FIRST TURNING POINT X:	2/75
Y:	19.26
SECOND TURNING POINT X:	3/78
Y:	7.27
PCT SS EXPLAINED =	60.22

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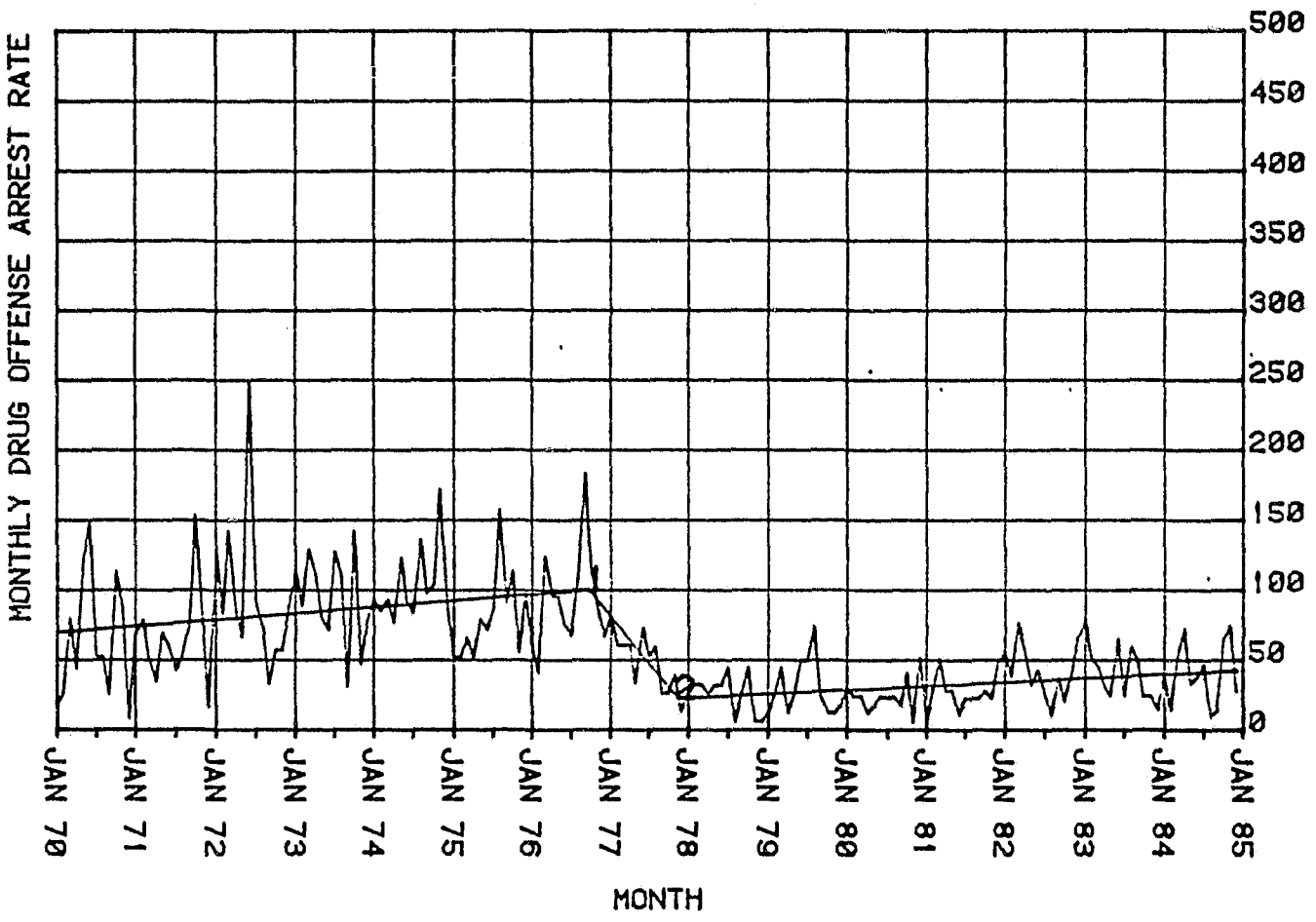

FIRST SLOPE =	0.39
Y ZERO INTERCEPT =	69.06
SECOND SLOPE =	-5.59
Y ZERO INTERCEPT =	556.55
THIRD SLOPE =	0.23
Y ZERO INTERCEPT =	0.58

FIRST TURNING POINT X:	9/76
Y:	101.05
SECOND TURNING POINT X:	11/77
Y:	22.81
PCT SS EXPLAINED =	46.06