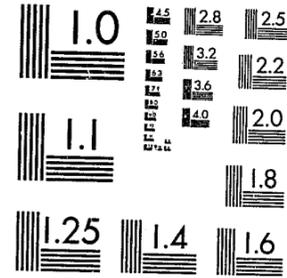


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Research Report

POPULATION AND CRIME:
A STUDY OF THE JUVENILE POPULATION
AND VOLUME OF JUVENILE ARRAIGNMENTS
IN MASSACHUSETTS 1940-1980

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INTRODUCTION

Much attention recently has been focused on the "skyrocketing" rate of juvenile crime (and crime in general). While crime certainly warrants public concern and attention, the notion of a "skyrocketing" rate is at present a misconception. Juvenile crime in Massachusetts has, in fact, been on the decline since the late 1970's.

Previous research has shown a relationship between demographic trends (specifically, the proportion of adolescents in the population) and shifts in the rates of juvenile crime (and the total amount of crime). This study examines the juvenile population shifts in the counties of Massachusetts from 1940 to 1980 and the concomitant shifts in juvenile arraignments in the counties of Massachusetts during the same period.

Population statistics from the federal census and juvenile arraignments statistics obtained through the Office of the Commissioner of Probation were collected and recorded by decade and analyzed in an effort to show a relationship between the population shifts in Massachusetts and the crime waves from 1940 to 1980.

If there proves to be such a relationship and some knowledge of expected population shifts is available, perhaps this information can be used to help predict future trends in juvenile crime. In addition, there may be implications for policy and program planning that address the issue of juvenile crime as well as staff and resources needed in the juvenile justice system, corrections, and law enforcement. At the very least, this report aims to provide the public with accurate information regarding longitudinal trends in juvenile crime and a possible explanation for them.

LITERATURE REVIEW

A consensus from previous research seems to indicate that demographic trends and developments play a significant role in the shifts in crime rates over a given period of time. Several researchers have focused on the maturing baby-boom generation (the age cohort born post-World War II between 1945-1955) and the concomitant influence it has had on social, political, and economic changes since the birth of the cohort. It is important to note that there seems to be a reciprocal influential relationship between the maturation of the cohort and value shifts in the social, political, and economic arenas of the times.

David Snyder supports this premise in his paper entitled "Demographic Economic and Social Trends and Developments That Will Shape the Organizational Operating Environment During the 1980's" which was presented at the U.S. Civil Service Commission Conference, "Management in the 1980's," in December of 1981. In this paper, Snyder argues that demographic, social and economic changes are relatively predictable based on "the basic realities of the past."

While Snyder does not address himself specifically to shifts in crime, he does relate trends in education, the labor market, the work force, etc. to the various impacts of the baby-boom generation. From a practical point of view, Snyder believes that it is important to keep these notions in mind when planning alternative programs and allocating resources for the future.

With regard to shifts in crime in particular, several researchers and theorists have discussed the effects of the baby-boom children. In his chapter on "The Crime Boom," Landon Y. Jones spoke of the alarming crime wave of the 1960's. "Coming after the tranquil fifties, the crime wave was as mystifying as it was terrifying." The cause of this wave was linked to various factors including unemployment, divorce, racial tensions, poverty, increased social mobility, television violence, and the decrease in respect for tradition and authority. However, as Jones states, "the real fact is that the crime wave of the sixties was in large part a fraud...what seemed to be a nationwide breakdown in law and order was a predictable result of the coming of age of the baby-boom generation."

The rationale behind all of this is that young people between the ages of 14 and 24 dominate the population that commits violent and property crimes. Since the peak age of violent crime in the United States is eighteen, looking

at the birthrate eighteen years prior to a given period can provide somewhat of an explanation for the etiology of fluctuating crime rates. For example, during the 1940's and 1950's, the level of crime in the United States was relatively low due to the low birthrates of the twenties and thirties. After 1960, however, millions of children born in the post-World War II baby-boom came of the crime prone ages. The proportion of 14 to 24 years olds expanded rapidly; in ten years it grew by more than fifty percent. According to Jones, the 14 to 24 age group in 1960 included only fifteen percent of the population but was responsible for 69 percent of all arrests for serious crimes. This proportionate increase in 14 to 24 year olds ultimately coincided with a proportionate increase in the incidence of crime.

The notion that the crime boom was related to the coming of crime-prone age of the baby-boom children is supported by Marvin E. Wolfgang in his article, "Real and Perceived Changes of Crime and Punishment." Wolfgang points out that the change in proportion of the criminogenic age group in the population has been significantly responsible for the changing crime rates, particularly with regard to crimes of violence.

Likewise, James Alan Fox explains in his article, "Generations and the Generation of Crime" why the baby-boom produced "an escalation in the overall trend in the violent crime rate." According to Fox, it is logical to assume that these shifts in age structure of the population should produce changes in the rate of violent crime.

With this as a foundation, Fox has developed an econometric model of crime rates over time, a mathematical and statistical means for forecasting crime data. Following the baby-boom cohort, Fox and Wolfgang assert that until the mid-1980's there should be a decline or a leveling-off in the commission of crimes of violence because the youthful group in the total population has decreased. However, as the baby-boom children themselves have children and as these children become adolescents, there may again be a dramatic increase in the adolescent proportion of the population. As a result, the violent crime rate is expected to increase once again in the 1990's.

Of course, there is the possibility that the baby-boom does not, in itself, account for all of the increase in crime. Nevertheless, it is a large enough and significant enough factor to warrant strong consideration and further analysis.

METHODOLOGY

The main objective of this study was to examine the relationship between the juvenile population shifts in the counties of Massachusetts and the juvenile arraignment shifts for the period 1940 through 1980. In this study, the population statistics were recorded from the Census of Population for Massachusetts, and the juvenile arraignment statistics were collected from the Commonwealth of Massachusetts, Report of the Office of the Commissioner of Probation for the years 1940 through 1980. This study, therefore, includes the most accurate information accessible to researchers.

One qualification that is important to note is the difference in age range for the juvenile population data and the juvenile arraignment data. That is, where the juvenile population data included up to 19 years, the juvenile arraignment data covered up to 17 years. The reason for this difference in age categories is that the data bases used in this study were not exactly comparable, though they were obtained from the most reliable sources available. The data bases were not identical because the Census of Population for Massachusetts made its upper limit juvenile age category 15-19 years whereas the juvenile arraignment data was based on the age jurisdiction of the juvenile courts.

The method for conducting this research was as follows:

1. Record census population of Massachusetts data for all age categories by counties.
2. Collapse categories and record statistics for the juvenile age category.
3. Record juvenile arraignment data from the reports from the Office of the Commissioner of Probation.
4. Analyze research findings by calculating and recording the percent change in county and state population and the percent change in county and state juvenile arraignments from decade to decade. The trends were illustrated by graphing the data as well.
5. Draw conclusions and logical explanations for the research findings.

RESEARCH FINDINGS

I. Juvenile Population in Massachusetts 1940-1980

A. Statewide Shifts

The shifts in the total juvenile population (up to 19 years of age) for the Commonwealth of Massachusetts are illustrated in Table 1. In general, the juvenile population increased 44% from 1940 to 1970 with a marked increase of 31% between 1950 and 1960. It reached its peak in 1970 and declined substantially by 22% from 1970 to 1980. (See Figure 1).

B. Shifts by County in Massachusetts

Looking at the number of juveniles in each county in Massachusetts, the counties with the largest percentage of juveniles were Middlesex, Suffolk, and Essex; this was consistent across the forty year period. Counties with the lowest percentage of juveniles were Barnstable, Franklin, and Hampshire.

Several of the counties with large juvenile populations (specifically, Berkshire, Hampden, Middlesex, Norfolk and Plymouth) followed the trend represented by the statewide juvenile population shifts; that is, a relatively small increase from 1940-1950, a dramatic increase from 1950-1960, another small increase between 1960 and 1970, and a significant decline between 1970 and 1980. Although there was a decline between 1970 and 1980 in Plymouth's juvenile population, it was not as dramatic as for the others.

The juvenile population in Bristol, Essex, and Hampshire revealed similar trends, the difference being that they experienced a decline in the juvenile population from 1940 to 1950 rather than a small increase.

Worcester County, a county with a relatively large number of juveniles, did not experience a trend consistent with that of the others or with the statewide totals. The population decreased nearly 9% between 1940 and 1950, increased markedly (45%) between 1950 and 1960, decreased slightly (about 3%) between 1960 and 1970, and decreased by nearly 22% between 1970 and 1980.

Interestingly, Suffolk County (including the city of Boston) showed a very different trend: the data revealed a very small increase in the juvenile population between 1940 and 1950 (0.4%) but subsequently showed a significant and consistent decline through 1980.

II. Juvenile Arraignments in Massachusetts 1940-1980

A. Statewide Shifts

The shifts in total juvenile arraignments for the Commonwealth of Massachusetts are illustrated in Table 2. In general, the number of juvenile arraignments showed a relatively small increase between 1940 and 1950 (about 9%), increased by 83% from 1950 to 1960, upsurged dramatically between 1960 and 1970 by 162%, and then began its decline (a decrease of 4.5%) between 1970 and 1980. (See Figure 2.)

B. Shifts by County in Massachusetts

Since juvenile arraignments data were not available by county for 1940, 1950, and 1960, shifts in juvenile arraignments by individual counties were examined for the decade 1970 to 1980.

The four counties with the highest number of arraignments in both 1970 and 1980 were, from the highest number, Middlesex, Suffolk, Worcester, and Hampden. Middlesex and Suffolk, however, showed a marked decrease (14.49% and 27.58%, respectively) in the number of juvenile arraignments between 1970 and 1980; Worcester showed a slight increase (0.43%) and Hampden, a slight decrease (1.84%). Although the state showed an overall decrease in the number of juvenile arraignments between 1970 and 1980, there were several counties that showed marked increases. Most dramatic of these was Hampshire County which experienced an increase of 63% from 1970 to 1980. Other counties that showed marked increases were Barnstable (28.27%), Bristol (36.95%), and Plymouth (31.63%).

On the other hand, some counties experienced a decline in the number of juvenile arraignments consistent with the statewide trend. While juveniles arraignments decreased on a statewide basis, they did so by only 4.5%.

III. Relationship Between Juvenile Population and Juvenile Arraignments in Massachusetts 1940-1980

A. Statewide

As stated in the introduction, at present, there are misconceptions about the increasing rate of juvenile crime in Massachusetts. This study, which focuses on Massachusetts alone, shows that the most noticeable increases in juvenile population were during the decade 1950-1960, when the population increased 31%. Although 1950 to 1960 was the period that showed the most noticeable percentage increase in juvenile population, the juvenile population reached a peak of 1,568,818 during the decade 1960 to 1970 (see figure 1.).

In examining the noted increase of 1950 to 1960, the statistical findings and the literature review appear to infer a hypothetical relationship between juvenile population shifts and the post-World War II baby boom (documented dates: 1945 -1955). This study suggests that, after World War II, the increase in juvenile population was related to the later increase in juvenile arraignments during the years 1965 to 1975 (juvenile arraignments increased by 162% from 1960 to 1970 -- see Figure 2.). The 162% upsurge in juvenile arraignments has been seen as a reasonable result of the statewide juvenile population increase of 1950 through 1970 when the population increased by nearly 40%.

Consistent with the theories revealed in the literature review, the figures in this study indicate a decline in juvenile arraignments for the 1980's since the children of the post-World War II baby boom are now beyond the delinquency-prone age category.

B. Counties in Massachusetts

Juvenile arraignment data for counties in Massachusetts were unavailable for evaluation for the decades 1940 through 1960; therefore, the juvenile population and arraignment shifts were examined on the basis of the individual recorded county data for the decade 1970 through 1980 as well as the overall state totals for the decades 1940 through 1980.

Since one might expect there to be a "lag effect" with population shifts, the county-by-county population shifts from one decade were examined in relation to the juvenile arraignment shifts a decade later.

Analyzing the data in Tables 1 and 2, it is evident that the statewide juvenile population bulged between 1950 and 1960, and the juvenile arraignment volume increased by a staggering 162% a decade later.

From 1960 to 1970, the statewide/juvenile population growth slowed to less than 7%, while the juvenile arraignment volume declined by 4.5% a decade later.

The data indicates that Barnstable, Berkshire, Bristol, Hampshire and Plymouth counties had substantial increases in the volume of juvenile arraignments, when the 1970 and 1980 data were compared. Looking back at the population shifts during the 1960-1970 decade, one sees increases in the birth rate in those counties. This relationship is particularly strong in Barnstable and Plymouth counties, which have experienced rapid overall population growth and area development.

Suffolk County (including the City of Boston) showed a decline in the size of the juvenile population from 1960-1970 (down 4%); the volume of juvenile arraignments declined by nearly 28% from 1970-1980. Looking at the decade from 1950-1960, the juvenile population declined 2%. Suffolk was the only county to show a population decline during that 1950-1960 decade.

The relationship between birth rates and arraignments was less clear in the other counties. The birth rate during the 1950-1960 and 1960-1970 decades only accounts for part of the shifts in juvenile arraignments. Population movement and other demographic changes may also be involved. Changing family structure, particularly with the increasing incidence of single-parent homes due to the escalating divorce rate, may also impact on some geographical areas more than others.

SUMMARY OF FINDINGS

This study focused on the juvenile population and juvenile arraignment trends for the decades 1940-1980. The research concentrated on longitudinal shifts in juvenile crime and logical reasoning for them.

While the data did not undergo rigorous tests of statistical significance, it appears that the population increase after World War II has been related to the subsequent upsurge in juvenile crime during the last two decades. The data indicate that the Massachusetts juvenile population increased through 1970, but began to decline between 1970 and 1980. Similarly, the volume of juvenile arraignments increased steadily from 1940-1970, but also began to decline between 1970 and 1980. Recent annual statistics from the Office of the Commissioner of Probation indicate that juvenile arraignments have continued to decline since 1980.

Since most of the children of the post-World War II "baby boom" have grown out of the delinquency-prone age category, the proportion of juvenile arraignments has also declined. With the lower birth rate, particularly in some of the larger counties in Massachusetts, the data suggests that the trend toward reduced juvenile arraignments may continue. Because there is an apparent relationship between the birth rate and subsequent juvenile arraignments a decade or more later, the population shifts in the individual cities and towns should be monitored. An increase in the birth rate (particularly in the towns which are still undergoing rapid growth) may produce a resurgence in the juvenile crime rate a few years from now.

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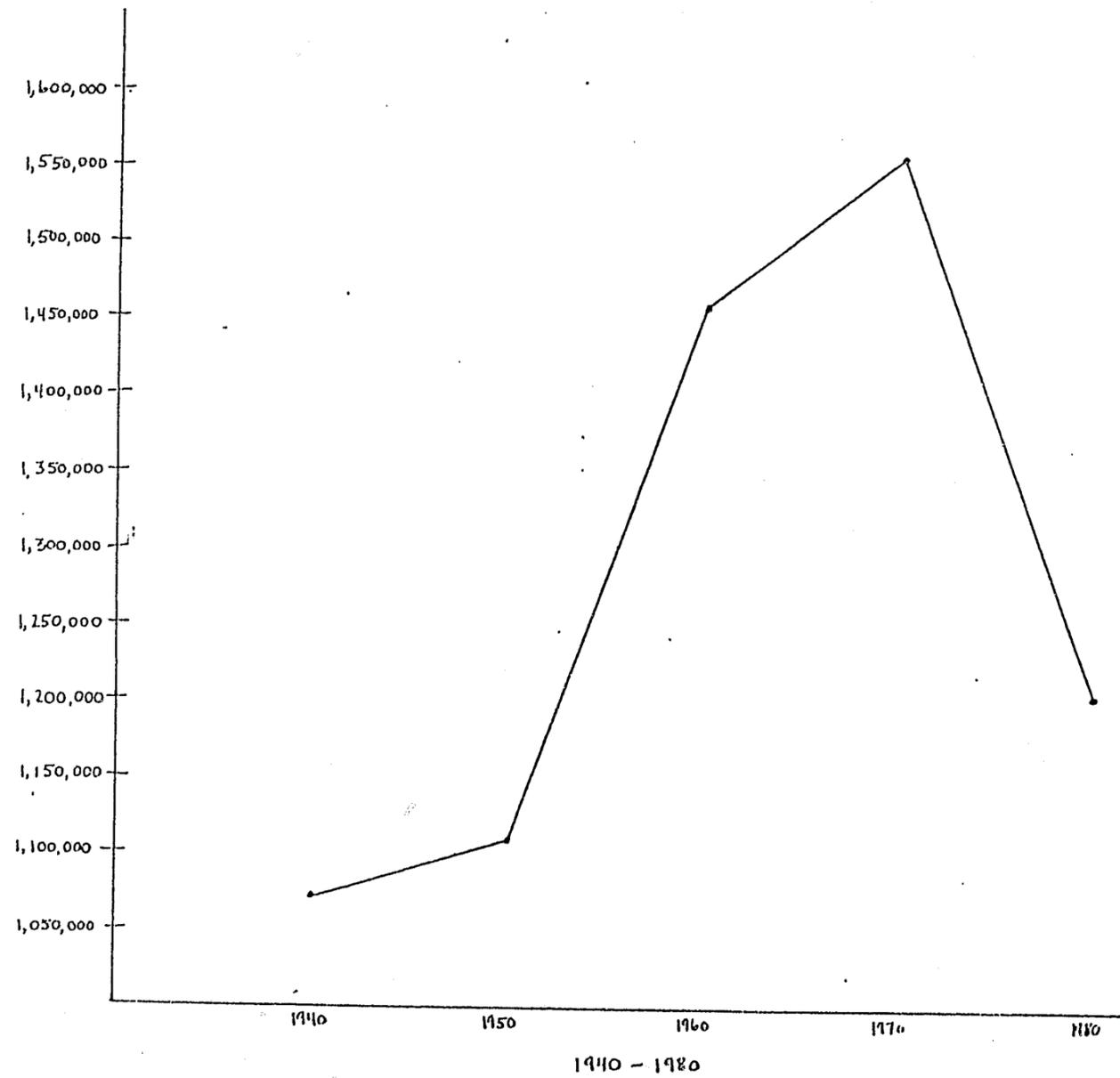
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TABLE 1: JUVENILE POPULATION OF THE COUNTIES IN MASSACHUSETTS (1940-1980)

County	Actual Population					Percent of Total					Percent Change			
	1940	1950	1960	1970	1980	1940	1950	1960	1970	1980	1940-50	1950-60	1960-70	1970-80
Barnstable	-	-	4,995	5,972	6,485	-	-	0.33%	0.38%	0.53%	-	-	+19.55%	+8.59%
Berkshire	26,172	26,320	32,053	31,728	23,922	2.40%	2.34%	2.17%	2.02%	1.95%	+0.56%	+21.78%	+ 1.01%	-24.60%
Bristol	97,058	84,239	106,371	115,013	98,183	8.90%	7.49%	7.22%	7.33%	8.03%	-13.20%	+26.27%	+ 8.12%	-14.63%
Dukes	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Essex	133,984	122,419	174,954	200,896	162,208	12.30%	10.89%	11.88%	12.80%	13.27%	-8.63%	+42.91%	+14.82%	-19.26%
Franklin	4,545	4,364	4,880	4,859	5,222	0.42%	0.38%	0.33%	0.30%	0.42%	-3.98%	+11.82%	-0.43%	+7.47%
Hampden	83,719	93,494	135,121	141,173	110,620	7.68%	8.31%	9.17%	8.99%	9.05%	+11.67%	+44.52%	+4.47%	-21.64%
Hampshire	9,463	7,632	20,080	20,840	17,331	0.87%	0.67%	1.36%	1.32%	1.41%	-19.34%	+163.10%	+3.78%	-16.84%
Middlesex	270,432	284,964	371,290	403,481	301,327	24.82%	25.35%	25.21%	25.71%	24.66%	+5.37%	+22.42%	+8.67%	-25.32%
Nantucket	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Norfolk	71,539	105,676	164,668	184,084	137,779	6.56%	9.40%	11.18%	11.73%	11.27%	+47.71%	+55.82%	+11.79%	-25.15%
Plymouth	21,322	32,063	55,438	73,557	73,279	1.95%	2.85%	3.76%	4.68%	5.99%	+50.37%	+72.90%	+32.68%	-0.38%
Suffolk	260,473	261,533	255,949	244,676	174,007	23.90%	23.27%	17.38%	15.59%	14.24%	+0.40%	-2.13%	-4.40%	-28.88%
Worcester	110,736	101,086	146,609	142,539	111,550	10.16%	8.99%	9.95%	9.08%	9.12%	-8.71%	+45.03%	-2.77%	-21.74%
TOTAL	1,089,443	1,123,790	1,472,408	1,568,818	1,221,913						+3.15%	+31.02%	+6.54%	-22.11%

JUVENILE POPULATION OF THE COUNTIES IN MASSACHUSETTS

FIGURE 1: JUVENILE POPULATION IN MASSACHUSETTS (1940-1980)



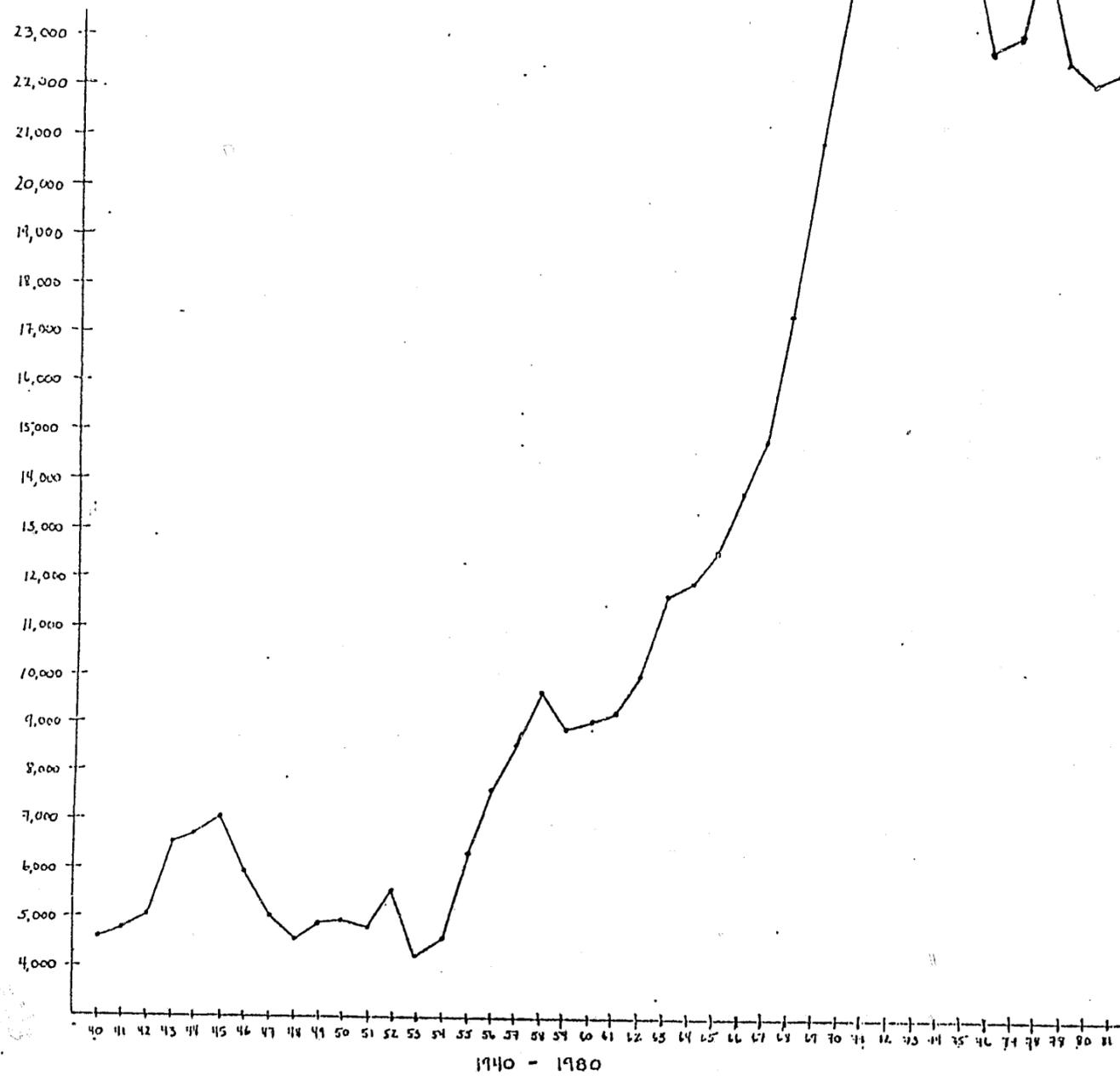
JUVENILE POPULATION IN MASSACHUSETTS

TABLE 2: JUVENILE ARRAIGNMENTS IN THE COUNTIES IN MASSACHUSETTS (1940-1980)

County	Actual Arraignments					Percent of Total					Percent Change			
	1940	1950	1960	1970	1980	1940	1950	1960	1970	1980	1940-50	1950-60	1960-70	1970-80
Barnstable				573	735				2.39%	3.22%				+28.27%
Berkshire				626	719				2.61%	3.15%				+14.85%
Bristol				1,805	2,472				7.55%	10.83%				+36.95%
Dukes				-	-				-	-				-
Essex				2,311	2,016				9.66%	8.83%				-12.76%
Franklin				276	232				1.15%	1.01%				-15.94%
Hampden				2,614	2,566				10.93%	11.24%				-01.84%
Hampshire				414	675				1.73%	2.95%				+63.04%
Middlesex				4,576	3,913				19.14%	17.14%				-14.49%
Nantucket				-	-				-	-				-
Norfolk				1,832	1,262				7.66%	5.53%				-31.11%
Plymouth				1,726	2,272				7.21%	9.95%				+31.63%
Suffolk				4,387	3,177				18.35%	13.92%				-27.58%
Worcester				2,766	2,778				11.57%	12.17%				+00.43%
TOTAL	4,580	4,971	9,108	23,906	22,817				99.95%	99.94%	+08.54%	+83.22%	+162.47%	- 4.56%

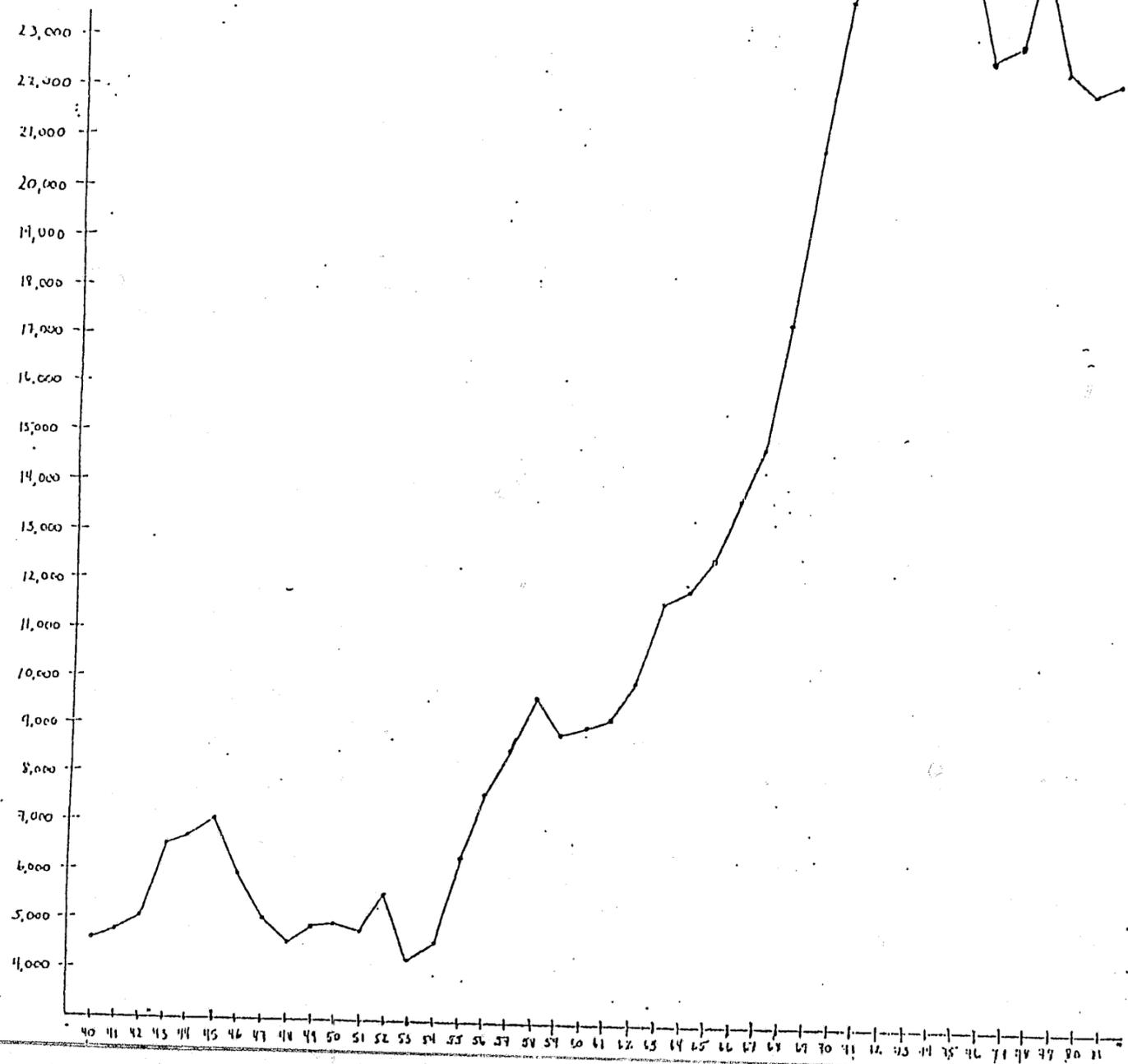
JUVENILE ARRAIGNMENTS IN THE COUNTIES OF MASSACHUSETTS

FIGURE 2: JUVENILE ARRAIGNMENTS IN MASSACHUSETTS
1940-1980



JUVENILE ARRAIGNMENTS IN MASSACHUSETTS

FIGURE 2: JUVENILE ARRAIGNMENTS IN MASSACHUSETTS
1940-1980



JUVENILE ARRAIGNMENTS IN MASSACHUSETTS

END