

A NEW JERSEY NEWSLETTER

POPULATION AND CENSUS

PROPERTY OF
NEW JERSEY STATE LIBRARY
JUL 2 1984
185 W. State St.
Trenton N.J.



Thomas H. Kean, Governor

Roger A. Bodman, Commissioner

Issue 33

May 1984

CONTENTS

Educational Attainment in New Jersey 1970-1980	2
Garden State Population Continues to Increase	12
1983 Voting Age Population	13
1990 Census: Local Public Meeting	14
Conferences / Workshops / Meetings	15
The 1984 Statistical Abstract	15
1983 County & City Data Book	16
Evaluating New Jersey's Population Estimating Techniques	17
New Jersey Farms Increase / Size Declines ...	19
What is Your Census IQ ?	24
Subject Index	29

EDUCATIONAL ATTAINMENT IN NEW JERSEY 1970 - 1980

Connie O. Hughes
New Jersey State Data Center

INTRODUCTION

The educational level of New Jersey's residents tends to be higher than the nation as a whole. According to the 1980 census, approximately 18% of the state's population 25 years old and over have completed at least four years of college; the comparable proportion for the nation is 16%. This is despite the fact New Jersey continues to be one of the largest net exporters of college students. However, this may add credence to the theory that people are returning to or moving to the state upon completion of their education, or perhaps returning after gaining initial work experience, elsewhere.

Knowledge of the level of educational attainment of an area's population is useful for several purposes. In conjunction with information such as occupational characteristics, it serves as an indicator of an area's labor pool suitability for locating or relocating of businesses and corporations. Market researchers utilize the data to identify customer potential. And, public officials and decisionmakers incorporate the data in assessing the educational well-being of their constituents.

1980 census data on educational attainment are now available. This article will discuss the findings from the 1980 census and compare them to those from the 1970 census. The changes in New Jersey in years of school completed by sex and race will also be described, and educational attainment in the 21 counties will be examined.

LEVEL OF EDUCATIONAL ATTAINMENT INCREASING

The level of educational attainment in general has historically been increasing. However, as can be seen from Table 1, it was not until 1970, that over 50% of the population 25 years old and over in both the nation and the state had at least a high school education. There were tremendous gains in overall educa-

tional status from 1960 to 1970, but the most dramatic increase was in the 1970s. During this decade there was the greatest rise in the percentage of the population with at least a college education. The increase in college graduates reflected the widespread availability of higher education facilities which had been geared toward the "baby-boom" generation.

Table 1
EDUCATIONAL ATTAINMENT
United States and New Jersey
1940 - 1980
(Numbers in Thousands)

	1940	1950	1960	1970	1980
UNITED STATES	75,008.9	88,432.4	99,517.0	109,899.4	132,835.7
Total Persons*					
% High School Grads.	24.5	34.3	41.1	52.3	66.5
% Col., 4 yrs. or more	4.6	6.2	7.7	10.7	16.2
Median School Yrs. Completed	8.6	9.3	10.6	12.1	12.5
NEW JERSEY					
Total Persons*	2,533.4	3,042.7	3,599.9	4,056.6	4,504.2
% High School Grads.	22.5	33.7	40.7	52.5	67.4
% Col., 4 yrs., or more	5.0	6.7	8.4	11.8	18.3
Median School Yrs. Completed	8.6	9.4	10.5	12.1	12.5

Note: *Persons 25 years old and over.

Source: U.S. Bureau of the Census, Decennial Censuses.

New Jersey has mirrored the national trend of increasing levels of educational attainment. However, even before World War II, there was a higher percentage of college graduates in New Jersey than in the nation. On the other hand, it was not until 1970, that the percentage of persons in New Jersey with at least a high school education exceeded the national average.

According to the 1980 census, New Jersey was second only to Florida in median age. However, preliminary research into the age-structure change during the 1970s indicates this may be as much or more a function of out-migration of persons in their twenties, i.e., college and initial work experience ages, as a disproportionate share of elderly. (In 1980, New Jersey ranked 18th in percentage of persons 65 years old and over.)*

*See, for example: Connie O. Hughes, "The Age of New Jersey's Population," in New Jersey Economic Indicators, No. 208, July 1981; or Michael J. White "A 1980 Census Profile of New Jersey," Princeton Urban and Regional Research Center, Princeton, New Jersey, October 1983.

This out-migration of New Jerseyans for educational purposes might lead to the assumption that the overall educational level of the state's residents is below the national average. However, as can be seen from Table 1, the reverse is true, and was in both 1970 and 1980. While the median number of school years completed for the population 25 years old and over was the same in New Jersey and the nation (12.1 years in 1970 and 12.5 years in 1980), a greater percentage of the state's population were high school graduates. In 1980, 67.4% of New Jersey's adult population were high school graduates; the corresponding percentage for the United States was 66.5%. The difference in the percentage that are college graduates is even more dramatic -- 18.3% for New Jersey and 16.2% for the United States.

Table 2 provides 1970 and 1980 data on educational attainment for the United States, New Jersey, New York, and Pennsylvania. The table further details the dramatic gains in educational levels during the 1970s, particularly in college graduates. At the national level, the number of persons 25 years old and over increased by 21%, but the number that were at least high school graduates increased by 54%, and the number of college graduates increased by 84%. The national pattern was replicated in New Jersey, New York, and Pennsylvania. However, the gains in New Jersey more nearly matched those of the nation than those in New York and Pennsylvania. New Jerseyans and New Yorkers have tended to be better educated than the national average, especially in terms of college education, with slightly higher levels of educational attainment in New York. But, by 1980, New Jersey had surpassed both New York and the nation in the percentage of both high school and college graduates. This appears to further substantiate the hypothesis that people are migrating to New Jersey after completing their higher education elsewhere. In fact, except for young children, the only age group to exhibit positive net migration during the 1970s were those 30-39 years of age in 1980.*

EDUCATIONAL ATTAINMENT BY AGE AND SEX

Table 3 documents the increasing levels of educational attainment in greater detail than Table 2. Despite these gains, in 1980 there were still 797,900 persons with an elementary education or less, and an additional 670,400 persons who did not complete high school. Thus, 1.4 million New Jerseyans had not graduated from high school, the majority of whom did not get past 8th grade. But, if these data are compared to those in Table 4, the lower levels of educational attainment are exhibited by persons

*See, for example: Connie O. Hughes, "The Age of New Jersey's Population," in New Jersey Economic Indicators, No. 208, July 1981; or Michael J. White "A 1980 Census Profile of New Jersey," Princeton Urban and Regional Research Center, Princeton, New Jersey, October 1983.

Table 2
EDUCATIONAL ATTAINMENT
 United States, New Jersey, New York, Pennsylvania
 1970 -1980

	1970		1980		Change: 1970-1980	
	Number	%	Number	%	Number	%
United States						
Total Persons*	109,899,359	100.0	132,835,687	100.0	22,936,328	20.9
H.S. Grads.**	57,526,047	52.3	88,300,490	66.5	30,774,443	53.5
Col. Grads.***	11,717,266	10.7	21,558,480	16.2	9,841,214	84.0
Median School Yrs. Completed	12.1	-	12.5	-	-	-
New Jersey						
Total Persons*	4,056,606	100.0	4,504,247	100.0	447,641	11.0
H.S. Grads.**	2,131,108	52.5	3,035,898	67.4	904,790	42.5
Col. Grads.***	480,126	11.8	826,040	18.3	345,914	72.0
Median School Yrs. Completed	12.1	-	12.5	-	-	-
New York						
Total Persons*	10,418,555	100.0	10,721,012	100.0	302,457	2.9
H.S. Grads.**	5,486,096	52.7	7,105,103	66.3	1,619,007	29.5
Col. Grads.***	1,238,535	11.9	1,923,547	17.9	685,012	55.3
Median School Yrs. Completed	12.1	-	12.5	-	-	-
Pennsylvania						
Total Persons*	6,689,938	100.0	7,240,244	100.0	550,306	8.2
H.S. Grads.**	3,360,654	50.2	4,683,501	64.7	1,322,847	39.4
Col. Grads.***	585,290	8.7	981,416	13.6	396,126	67.7
Median School Yrs. Completed	12.0	-	12.4	-	-	-

Notes: * Persons 25 years old and over
 ** Includes persons with 1 or more years of college.
 *** Persons with 4 or more years of college.

Source: U.S. Bureau of the Census, Decennial Censuses.

Table 3
EDUCATIONAL ATTAINMENT BY SEX
New Jersey
1970 - 1980

	1970	1980	Change: 1970-1980	
			Number	Percent
Total Persons*	4,056,606	4,504,247	447,641	11.0
Elementary (0 to 8 yrs.)	1,136,055	797,935	-338,120	-29.8
High School				
1 to 3 yrs.	789,443	670,414	-119,029	-15.1
4 yrs.	1,292,000	1,615,424	323,424	25.0
College				
1 to 3 yrs.	358,982	594,434	235,452	65.6
4 yrs. or more	480,126	826,040	345,914	72.0
% High School Graduates	52.5	67.4	-	-
% College Graduates	11.8	18.3	-	-
 Males*	1,900,387	2,083,989	183,602	9.7
Elementary (0 to 8 yrs.)	528,114	349,066	-179,048	-33.9
High School				
1 to 3 yrs.	366,055	302,277	-63,778	-17.4
4 yrs.	518,554	650,300	131,746	25.4
College				
1 to 3 yrs.	179,152	286,630	107,478	60.0
4 yrs. or more	308,512	495,716	187,204	60.7
% High School Graduates	52.9	68.7	-	-
% College Graduates	16.2	23.8	-	-
 Females*	2,156,219	2,420,258	264,039	10.9
Elementary (0 to 8 yrs.)	607,941	448,869	-159,072	-26.2
High School				
1 to 3 yrs.	423,388	368,137	-55,251	-13.0
4 yrs.	773,446	965,124	191,678	24.8
College				
1 to 3 yrs.	179,830	307,804	127,974	71.2
4 yrs. or more	171,614	330,324	158,710	92.4
% High School Graduates	52.2	66.2	-	-
% College Graduates	8.0	13.6	-	-

Note: *Persons 25 years old and over.

Source: U.S. Bureau of the Census, Decennial Censuses.

in the age groups at the upper end of the range. Persons who were in their early fifties in 1980 had attained educational status approximating the level for all persons 25 years old and over. What is clear from Table 4 is that as the older population dies, the overall educational level will continue to rise.

The gap in educational attainment between males and females can be seen in Table 3. In general, males tend to have completed more years of school than females. However, it appears this gap as narrowing. The biggest gain was in the percentage of college graduates. The 1970 to 1980 increase in college graduates was 61% for males, but 92% for females. Additional evidence of this differential closing is exhibited in Table 4. The largest differences between males and females existed at the upper end of the age range, especially among college graduates. At the lower end, however, the percentage of females age 20-29 years that were high school graduates exceeded that of males of the same age. And, a larger proportion of females 20-22 years of age than males were college graduates.

From Tables 3 and 4 it is evident that: (1) educational attainment will continue to increase; and, (2) the gap between males and females will continue to narrow.

EDUCATIONAL ATTAINMENT BY RACE

As with males and females, there has been a historic difference in overall educational attainment between nonblacks* and blacks (See Table 5). During the 1970s, however, there was a substantial increase in educational levels for blacks. In particular by 1980, there were 76% more black college graduates than in 1970. This increase was well above the 30% increase in the total black population 25 years old and over. Nonblack college graduates grew in number by 69%.

The gains in educational level for blacks are expected to continue, not only because of increased opportunities for higher education, but also because the number of older persons with low levels of educational attainment will decline in the coming years. For persons aged 20-to-24 years, the difference between blacks and nonblacks is not as large. In 1980, 74% of New Jersey's black population 20-to-24 years of age had at least a high school education and 10% of those 23-to-24 years of age were college graduates. For the nonblack population, 78% of the 20-to-24 years olds were high school graduates, and 18% of the 23-and-24 years olds were college graduates.

*Includes: Whites (primarily); Asian and Pacific Islanders; American Indians, Eskimos, and Aleuts; and all "other" races. This category was chosen for the analysis because the data for whites are not comparable for 1970 and 1980.

Table 4
 EDUCATIONAL ATTAINMENT BY AGE AND SEX
 New Jersey
 1980

Age	TOTAL		MALE		FEMALE	
	% High School Grads.	% College Grads.	% High School Grads.	% College Grads.	% High School Grads.	% College Grads.
20 to 24 years	85.5	11.3	84.1	11.4	87.0	11.2
20 years	84.1	0.3	82.2	0.3	85.9	0.4
21 years	85.0	1.3	83.2	1.1	86.8	1.6
22 years	86.4	12.5	84.6	12.0	88.0	13.1
23 years	86.1	20.0	84.9	20.1	87.2	19.9
24 years	86.2	22.6	85.4	23.9	86.9	21.4
25 years and over	67.4	18.3	68.7	23.8	66.2	13.6
25 to 29 years	86.7	26.6	86.5	29.1	86.8	24.3
30 to 34 years	85.4	28.5	85.9	34.4	85.0	23.1
35 to 39 years	81.0	25.3	81.2	32.0	80.9	19.1
40 to 44 years	76.0	21.2	76.1	27.6	75.9	15.2
45 to 49 years	72.9	19.2	72.3	26.2	73.4	12.7
50 to 54 years	66.9	16.2	65.7	22.3	68.1	10.6
55 to 59 years	62.9	12.8	62.2	18.1	63.5	8.1
60 to 64 years	53.8	10.2	55.1	14.1	52.7	6.7
65 to 69 years	42.9	9.0	44.2	12.1	41.9	6.5
70 to 74 years	37.6	8.5	38.7	11.8	36.8	6.2
75 years and over	30.7	6.4	31.6	9.2	30.3	5.0

Source: U.S. Bureau of the Census, Decennial Censuses.

EDUCATIONAL LEVEL BY COUNTY

The counties with the highest proportions of their population with at least a high school education tend to be in the northern and central parts of the state. This is also the case for college graduates particularly within the greater New York metropolitan area.

In 1980, 80% of Morris County's population were high school graduates and 29% had completed at least four years of college. These patterns are followed closely by Somerset (77% and 27%) and Hunterdon (76% and 24%) counties. Hunterdon County had one of

Table 5
EDUCATIONAL ATTAINMENT BY RACE
New Jersey
1970 - 1980

	1970	1980	Change: 1970-1980	
			Number	Percent
Total Persons*	4,056,606	4,504,247	447,641	11.0
Elementary (0 to 8 yrs.)	1,136,055	797,935	-338,120	-29.8
High School				
1 to 3 yrs.	789,443	670,414	-119,029	-15.1
4 yrs.	1,292,000	1,615,424	323,424	25.0
College				
1 to 3 yrs.	358,982	594,434	235,452	65.6
4 yrs. or more	480,126	826,040	345,914	72.0
% High School Graduates	52.5	67.4	-	-
% College Graduates	11.8	18.3	-	-
Nonblacks*	3,697,216	4,036,009	338,793	9.2
Elementary (0 to 8 yrs.)	1,006,568	699,522	-307,046	-30.5
High School				
1 to 3 yrs.	689,808	564,745	-125,063	-18.1
4 yrs.	1,195,769	1,453,504	257,735	21.6
College				
1 to 3 yrs.	339,592	532,572	192,980	56.8
4 yrs. or more	465,479	785,666	320,187	68.8
% High School Graduates	54.1	68.7	-	-
% College Graduates	12.6	19.5	-	-
Blacks*	359,390	468,238	108,848	30.3
Elementary (0 to 8 yrs.)	129,487	98,413	-31,074	-24.0
High School				
1 to 3 yrs.	99,635	105,669	6,034	6.1
4 yrs.	96,231	161,920	65,689	68.3
College				
1 to 3 yrs.	19,390	61,862	42,472	119.0
4 yrs. or more	14,647	40,374	25,727	75.6
% High School Graduates	36.2	56.4	-	-
% College Graduates	4.1	8.6	-	-

Note: *Persons 25 years old and over.

Source: U.S. Bureau of the Census, Decennial Censuses.

the highest population growth rates during the 1970s and Morris and Somerset counties were among the fastest growing in employment during the decade.

Sussex County, another high-population growth area, ranked fourth in percentage of high school graduates, but eighth in percentage of college graduates. Conversely, Bergen County, an area of 1970 to 1980 population decline and contrasting employment growth, was seventh in percentage of persons with a high school education and fourth in college graduates.

Mercer County was particularly interesting because it ranked tenth in high school graduates, but fifth in persons with at least four years of college. The influence of Princeton University and the growth in employment outside of Trenton obviously contributed to persons of higher educational levels locating in the county.

Lower levels of educational attainment tended to concentrate in the southern less densely settled part of the state, as well as the older or more densely settled areas of Passaic, Essex, and Hudson Counties. The latter counties all experienced population and employment declines during the decade. As mentioned previously, there is a link between education and migration, i.e., the more educated are more likely to move. Oftentimes, a loss of jobs signals a loss of population, particularly among the better educated. The southern shore counties also had lower-than-average educational levels. This can be attributed, in large part, to the concentration of retired persons living in this area.

SUMMARY

Increases in educational levels continued during the 1970s, but apparently at an accelerated pace. The "baby-boom" generation contributed in two ways to this advance. First, representing the largest segment of the population, they have, for the most part, nearly completed their education, thus, raising the overall levels of median school years completed. Second, facilities built to meet the demand of this cohort now have excess capacity, and therefore offer increased opportunities for the "baby-bust" generation or for non-traditional older students.

There have been advances in educational attainment for females and blacks. While females in their early twenties met or surpassed their male counterparts in educational attainment, the gap between blacks and nonblacks will take longer to close. However, as those who were 65 years of age and over die, they will be replaced with persons of higher educational levels overall, and thus the overall levels of educational achievement will continue to rise.

New Jersey appears to be in a unique position. On the one hand, it is one of the largest exporters of college students; a

Table 6
EDUCATIONAL ATTAINMENT BY COUNTY
1980

	TOTAL PERSONS*		HIGH SCHOOL GRADUATES**		COLLEGE GRADUATES		Median Years of School Completed
	Number	%	Number	%	Number	%	
NEW JERSEY	4,504,247	61.2	3,035,898	67.4	826,040	18.3	12.5
Atlantic	120,411	62.2	73,903	61.3	15,033	12.5	12.3
Bergen	552,098	65.3	406,931	73.3	131,648	23.8	12.7
Burlington	206,050	56.8	153,179	74.3	37,940	18.4	12.6
Camden	277,983	58.9	182,108	65.5	45,102	16.2	12.4
Cape May	53,926	65.6	33,685	62.5	7,003	13.0	12.3
Cumberland	77,571	58.4	41,340	53.3	6,749	8.7	12.1
Essex	510,889	60.0	320,897	62.8	91,773	18.0	12.4
Gloucester	113,641	56.8	75,177	66.2	14,849	13.1	12.4
Hudson	343,115	61.6	176,864	51.5	38,324	11.2	12.0
Hunterdon	52,929	60.6	40,277	76.1	12,782	24.1	12.7
Mercer	186,680	60.6	126,495	67.8	40,636	21.8	12.5
Middlesex	354,978	59.6	248,606	70.0	64,428	18.1	12.5
Monmouth	305,233	60.7	225,920	74.0	65,862	21.6	12.7
Morris	246,933	60.6	198,039	80.0	70,629	28.6	12.9
Ocean	224,199	64.8	146,189	65.2	27,870	12.4	12.4
Passaic	270,255	60.4	157,545	58.3	37,173	13.8	12.2
Salem	38,476	59.4	24,031	62.5	3,447	9.0	12.3
Somerset	126,214	62.1	97,240	77.0	33,569	26.6	12.8
Sussex	68,115	58.9	51,427	75.5	12,874	18.9	12.6
Union	323,219	64.1	221,842	68.6	61,881	19.1	12.5
Warren	51,332	60.8	34,203	66.6	6,468	12.6	12.4

Notes: * Persons 25 years old and over.
** Includes college graduates.

Source: U.S. Bureau of the Census, Decennial Censuses.

fact which has been true for some time. On the other hand, it appears that there is a net migration to New Jersey of persons once they have received their education elsewhere. As a result, New Jersey has a population above the national average in educational attainment, and has higher percentages of its 25 years of age and over population that are high school graduates and college graduates than either New York or Pennsylvania.

DATA AVAILABILITY

The data in this article were obtained from U.S. Bureau of the Census, 1970 and 1980 Censuses of Population publications, primarily the "General Social and Economic Characteristics" and "Detailed Population Characteristics." Copies of these reports are available for review at all federal depository libraries. The 1980 volumes may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Additionally, some of the data are available for each of the 21 counties in New Jersey. These can be obtained by contacting the appropriate county planning board (except in Burlington County -- contact the Department of Economic Development). For a listing of these agencies, write to the New Jersey State Data Center, Division of Planning and Research, Department of Labor, CN 388, Trenton, NJ 08625-0388.

GARDEN STATE POPULATION CONTINUES TO INCREASE

Alfred Toizer
Office of Demographic and Economic Analysis

The resident population of New Jersey increased to 7,468,000 as of July 1, 1983, according to the most recent state population estimates released by the Census Bureau (CPS, Series P-25, No. 944).

This represented a net growth of about 103,000 persons since the 1980 census, an increase of 1.4%. Although the growth rate for the entire U.S. reached 3.3% over that period, New Jersey's pace was greater than those achieved by any other industrial states in the northeast as shown below:

State	Resident Population (000)				Change 1980-83	
	1980	1981	1982	1983	No.	Per.
New Jersey	7,365	7,407	7,427	7,468	103	1.4
Connecticut	3,108	3,123	3,126	3,138	30	1.0
Rhode Island	947	952	953	955	8	0.9
New York	17,558	17,556	17,567	17,667	109	0.6
Massachusetts	5,737	5,757	5,750	5,767	29	0.5
Pennsylvania	11,864	11,878	11,879	11,895	31	0.3

For New Jersey, the modest but significant population rise was due to both natural increase and positive net migration. Births in the 1980-83 period numbered about 316,000 and deaths 222,000 for a natural increment of approximately +94,000 persons. Net migration, therefore, accounted for about +8,000 more. The positive migration flow was in marked contrast to the negative net migration that persisted through the 1970s.

For the U.S. as a whole, the estimated resident population increased by about 7,435,000 between 1980 and 1983--adding, in effect, as many persons as lived in all of New Jersey. More than half the nation's total growth occurred in just three states: California (up 1,506,000), Texas (up 1,494,000) and Florida (up 933,000).

The estimates for 1983 are provisional and will be subject to change as more complete data become available. The figures for 1981 and 1982 are revisions of previously published population estimates for the U.S. and the states.

Beginning with this set of estimates, the procedure for preparing the annual state population estimates differs from the procedure previously used. Only two methods are involved, rather than three.

The Administrative Records Method continues to be used. It relies on births and deaths to measure the natural increment, and on Federal income tax returns to determine net migration. The results obtained by this method are averaged with those obtained through a composite of the two other methods used in the past: Component Method II to estimate the population under 15 years old, and the Ratio-Correlation Method to estimate the population age 15-64. (The regression equation in the Ratio-Correlation uses income tax returns, elementary school enrollment, and housing units as the independent variables.)

For more information, contact Alfred Toizer, Office of Demographic and Economic Analysis, Division of Planning and Research, Department of Labor, CN 388, Trenton, New Jersey 08625-0388, (609-292-0076).

1983 VOTING AGE POPULATION

About 5,598,000 residents of New Jersey were of voting age as of July 1, 1983, according to estimates recently published in the Federal Register. The figures, prepared by the U.S. Bureau of the Census, present the estimated population aged 18 and over in each state and the nation.

Approximately 224,000 persons were of voting age during the 1980-83 period. This is more than twice the increase estimated for the total state population, which rose from about 7,365,000 in 1980 to an estimated 7,468,000 last July--an overall gain of 103,000 persons.

Relative size of the voting-age population closely parallels total population, of course, but the rankings of a few states do differ somewhat on these two scales. For example, although Florida ranks seventh in total population, it is sixth in persons 18 and over. New Jersey ranks ninth in size in both total population and voting-age population.

In Florida, some 77.0% of the 1983-estimated residents were believed to be 18 or older. Only the District of Columbia had a higher percentage (78.3%), while New Jersey stood eighth at 75.0%. The proportion nationwide was about 73.3%; but in Utah, just 62.4% were estimated as being of voting age.

1990 CENSUS: LOCAL PUBLIC MEETING

OCTOBER 11, 1984 -- MARK IT ON YOUR CALENDAR !! That's the date of the 1990 Census Local Public Meeting (LPM) in New Jersey. In preparation of the 1990 census, the U.S. Bureau of the Census is holding a LPM in each state starting in April 1984. The meeting in New Jersey, which will be held at Trenton State College, Trenton, NJ, will be organized by the New Jersey State Data Center and U.S. Bureau of the Census.

The day-long session will be open to anyone interested in the 1990 census. The purpose of the meeting is to outline planning issues and to obtain comments and suggestions for consideration in designing the 1990 census. The agenda, which follows a format of presentations by Census Bureau personnel and open discussions, includes the topics: 1990 Planning Process, Population Issues, Housing Issues, Geographic Issues, Pre-census Outreach, and Data Product Issues.

Co-sponsors are being sought for this meeting. Co-sponsoring organizations will be responsible for such functions as providing mailing lists, publicizing the LPM, etc. The specific activities that each co-sponsor will perform will be determined in consultation with the NJSDC or U.S. Census Bureau Philadelphia Regional Office. Interested agencies should contact Connie O. Hughes, Staff Director, New Jersey State Data Center, Division of Planning and Research, Department of Labor, CN 388, Trenton, NJ 08625-0388 (609-984-2593).

CONFERENCES / WORKSHOPS / MEETINGS

NEW JERSEY STATE DATA CENTER

April 17, 1984 - NJSDC Network Annual Meeting
Center for Health Affairs, Princeton, NJ
(Pre-registration required.)

June 13, 1984 - "The Demise of the Middle Class: Myth or
Reality," a NJSDC luncheon discussion
(11:30 a.m. - 2:00 p.m.)
Capitol Plaza Hotel, Trenton, NJ
(\$15.00, pre-registration required.)

October 11, 1984 - 1990 Census Local Public Meeting
Trenton State College
Brower Student Center (Room 202)
Trenton, NJ
(Free, pre-registration required.)

November 20, 1984 - 5th Annual NJSDC Conference
Topic to be determined
Hyatt Regency, Princeton, NJ
(\$25-\$30, pre-registration required.)

U.S. BUREAU OF THE CENSUS (For further information contact the
User Training Branch -- 301-763-1510.)

April 30-May 4 - "Population Estimates Methodology: An In-
troduction"
Boston, MA (\$150.00)

June 20-21 - "The Aging Population: A 1980 Census
Workshop"
New York, NY (\$80.00)

THE 1984 STATISTICAL ABSTRACT:
AN INVALUABLE REFERENCE

The "1984 Statistical Abstract" is now available. This U.S. Census Bureau publication is an invaluable reference for several reasons; it contains numerous statistics ranging from accidents to zoology; it provides the source listing for the data, which is useful for locating additional information.

The 1984 abstract is the 104th such volume. This new issue contains over 1,500 tables. While the majority of data are for the nation as a whole, some tabulations are provided for the regions, divisions, states, Metropolitan Statistical Areas, major cities, and some foreign countries.

A copy of the "1984 Statistical Abstract of the United States" can be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, (202-783-3238), or any U.S. Department of Commerce district office. (Cost: \$19.00 in paper cover, \$23.00 in cloth cover.) Copies may be reviewed at any federal depository library.

1983 COUNTY AND CITY DATA BOOK

Data users who need state, county, and local area statistics and want them in a convenient format should consider the "County and City Data Book, 1983." Over 200 statistics are shown for the nation, regions, divisions, states, counties, and county equivalents. Statistics on 190 items are shown for the 952 cities with 25,000 or more people. A new feature is 15 data items for 9,969 places and minor civil divisions with 2,500 people or more. This edition also shows population counts for the new metropolitan statistical areas and their component counties.

Topics shown include population, housing, crime, labor force, income, banking, divorce, government employment, finance, business, agriculture, manufacturing, poverty, health, voting, commuting, and many others. The statistics come from the U.S. Census Bureau and other Federal sources and also from numerous private sources. The volume includes handy maps, definitions, and charts, all of which help make it a valuable one-stop reference. Rankings of all counties and for the 75 largest cities allow users to compare various areas.

The "County and City Data Book, 1983" is available in print from the Government Printing Office for \$24 (S/N 033-024-05833-2). Write to: Superintendent of Documents, Government Printing Office, Washington, D.C. 20233 or call 202/783-3238. Tape and diskette versions are also available as well as microfiche. For information on tape, diskette, and microfiche contact the U.S. Census Bureau, Customer Services (301/763-4100).

EVALUATING NEW JERSEY'S POPULATION ESTIMATING TECHNIQUES

Alfred Toizer
Office of Demographic & Economic Analysis

INTRODUCTION

The methods of preparing current population estimates for New Jersey's counties and municipalities, using techniques developed in the 1970s, are analyzed and assessed in a recent publication of the Office of Demographic and Economic Analysis (ODEA), in the New Jersey Department of Labor.

The report is entitled "An Evaluation of Population Estimating Techniques in New Jersey: Test of Methods Report No. 3."* It was prepared as part of the nationwide test-of-methods project of the Federal-State Cooperative Program for Local Population Estimates (or FSCPE). The intent of the project was for the program's state and federal participants to review and appraise their population estimating techniques with an eye toward revising those methods to improve future estimates.

The basic approach of the project was to use the then-existing techniques to prepare estimates for 1980, and compare the results to the actual 1980 census enumeration of the residents in each state, county, and municipality. As part of its contribution to the project, the Census Bureau issued its own "Evaluation of Population Estimation Procedures for States, 1980: an Interim Report."**

The bureau found that it underestimated the U.S. population by 2.08%; its state estimates for 1980 erred by an average of 2.48%. Generally, states that had relatively little change in population between 1970 and 1980 were estimated more accurately than those which showed marked increases or declines. New Jersey was mis-estimated by only 0.54%, one of the lowest rates of error in the nation. The lowest percentage error was an overestimate for North Dakota (0.32%); the highest was an underestimate for Nevada (-8.65%). In all, four states were mis-estimated by at least 5% and 15 by between 3% and 5%.

Further reports are awaited. Meanwhile, the Census Bureau has reconsidered its state estimates techniques and has already begun to implement new procedures.

* Published by New Jersey Department of Labor, Division of Planning and Research, in February 1984.

** U.S. Bureau of the Census, Current Population Reports, Series P-25, No. 933, issued June 1983.

COUNTY POPULATION ESTIMATES

For the estimates of the population of New Jersey counties, the test replicated the sequence of procedures that were normally followed during the 1970s. Thus, "provisional" 1980 population estimates were prepared using the Component Method II and a four-variable Ratio-Correlation Method; and "revised" 1980 estimates were added in the results of the Administrative Records Method as well. Revised estimates are preferred, since they draw upon a broader range of data that are indicative of population size and/or demographic change. Revised estimates usually lag about a year behind provisional estimates; but this also provides opportunities to use final, corrected data in place of preliminary data that sometimes must be relied upon when preparing provisional estimates.

For New Jersey's counties, the revised 1980 estimates were found to have erred by an average of only 1.96% per county. This was slightly better than had been indicated by a preliminary ODEA study. In spite of this seemingly respectable level of accuracy -- better than what was achieved in estimating the national population and the individual states -- ODEA staff were concerned about the accuracy of the Ratio-Correlation Method. The validity and reliability of the county data series measuring two of the variables, covered employment and auto registrations, were becoming increasingly problematical, though the other two variables (elementary school enrollment and resident deaths) continued to be acceptable. Thus, the four-variable regression equation had become suspect.

The test of methods substantiated this suspicion. County estimates produced by the Ratio-Correlation Method alone were in error by an average of 4.31% per county, with eight counties mis-estimated by 5% or more. In contrast, Component II's average error was 2.02% per county (only one by more than 5%), and Administrative Records' average error was 2.13% per county (one by more than 5%).

ODEA staff had devised an alternative three-variable regression for the Ratio-Correlation Method, using school enrollment, births, and estimated year-round housing stock. When tested, this "new" regression equation produced 1980 estimates which erred by only 2.35% per county. Combined with Component II and Administrative Records, the three methods when averaged yielded "revised" 1980 estimates with an average error of only 1.27% per county, with eight counties mis-estimated by less than 1% and the largest error at only 4.79%.

Provisional 1980 estimates, combining just Component II and the Ratio-Correlation Method, resulted in an average error of 2.40% per county when the four-variable equation was employed, but only 1.72% per county when the three-variable equation was involved.

Thus, New Jersey's Test of Methods concluded that a "new" regression equation should be used in the Ratio-Correlation Method. Subsequently, the Census Bureau conducted an independent series of tests, experimenting with a number of other county data series. A different four-variable equation was found which appeared to be superior. Its variables were: elementary school enrollment, births, deaths, and Federal income tax returns. Results of these tests have not yet been published, but discussions between ODEA staff and Census Bureau FSCPE officials led to agreement to use this recently devised equation in New Jersey's Ratio-Correlation Method.

Another change that is expected for the 1980s involves the inclusion of preliminary results from the Administrative Records Method in the provisional county population estimates. Census Bureau officials thus plan to average the results of all three county-estimate methods, using the best data available at the time. The revised estimates that will be computed later will incorporate updated, more complete and more accurate data, for all three methods, than will have been on hand when provisional estimates are produced.

The next edition of this Newsletter will describe ODEA's evaluation of the population estimating techniques used at the municipal level. In the interim, questions may be addressed to Alfred Toizer, Office of Demographic and Economic Analysis, Division of Planning and Research, Department of Labor, CN 388, Trenton, N.J. 08625-0388.

NEW JERSEY FARMS INCREASE/SIZE DECLINES

Roger M. Linder
Office of Demographic and Economic Analysis

New Jersey farms grew in number and decreased in size between 1978 and 1982, according to the Commerce Department's Census Bureau.

Preliminary reports just released for the 1982 Census of Agriculture show a total of 8,277 farms* compared with 7,984 for 1978, an increase of nearly 4%. Land-in-farms totaled 916,331 acres, declining by more than 7% over the period, with an average size of 111 acres per farm.

The increase in New Jersey farms may be due in part to the growth of smaller farms. According to the 1982 census, 4,539, or approximately 55% of all farms in the state, were less than 50 acres in size. This represents a 17% gain in small farms since 1978. Apparently more people, looking for alternatives to their current life styles, are turning to small scale farming as a means of self-support and/or income production.

On the other hand, it would appear that some of the larger farms are selling off parcels of cropland to commercial and residential developers, as evidenced by the reduction in the state's total farm acreage and the decline in farms of 50 acres or more. According to the New Jersey Department of Agriculture, an alternate explanation may lie in the data-collection methods used by the Census Bureau and the fact that many of the smaller farms may not have been counted in 1982. See comparability section for a more detailed explanation.

Despite any apparent decline in total farmland, total sales of agricultural products amounted to \$437 million in 1982, a 25% increase compared to 1978's level. (Dollar values have not been adjusted for changes in price levels in this census report.)

On a sub-state level, all but 7 of New Jersey's counties showed gains in the total number of farms for 1982, with Hunterdon reporting the largest number of farms at 1,180. Camden, Passaic, Union, and Warren were the only counties to experience an increase in the size of land in farms, with Passaic gaining nearly 25% more farmland compared to 1978's level. One reason for this growth in farmland may be due to land that had been earmarked for commercial/residential development by farm owners, being revitalized for agricultural production to take advantage of the lower tax assessment on farmland.

Agriculture census data for New Jersey also revealed these facts:

- . Of the total farms in the state, 1,103 had gross sales of \$100,000 or more; 4,605 reported sales of less than \$10,000.
- . The average age of farm operators was 51.9 years; 918 were under 35, and 3,699 were 55 or older.
- . Women operated 732 farms or 9 percent of the state total.

*A farm as defined for the 1982 and 1978 censuses is any place from which \$1,000.00 or more agricultural products were sold, or normally would have been sold, during the census year.

Table 2
FARMS AND LAND IN FARMS FOR COUNTIES, 1982 AND 1978

County	Total # Farms		%	Farm Land (acres)		%	% of Total County Area in Farm Land	
	1982	1978		Change	1982		1978	Change
Atlantic	379	404	-6.2	27,504	30,986	-11.2	7.6	8.5
Bergen	126	144	-12.5	2,728	3,866	-29.4	1.8	2.5
Burlington	743	717	3.6	112,689	129,747	-13.1	21.8	25.1
Camden	152	160	-5.0	11,690	10,479	11.6	8.2	7.3
Cape May	117	108	8.3	13,992	15,013	-6.8	8.3	8.9
Cumberland	609	610	-0.1	75,189	83,544	-10.0	23.6	26.2
Essex	33	38	-13.2	1,204	1,868	-35.5	1.5	2.3
Gloucester	687	701	-2.0	66,133	69,661	-5.0	31.6	33.3
Hudson*	-----data not available-----							
Hunterdon	1,180	1,104	6.8	120,240	122,060	-1.5	44.0	44.7
Mercer	302	297	1.7	40,023	42,513	-5.9	27.5	29.2
Middlesex	251	268	-6.3	32,438	33,452	-3.0	16.0	16.5
Monmouth	743	732	1.5	68,275	72,315	-5.6	22.6	23.9
Morris	385	355	8.5	25,576	31,797	-19.6	8.5	10.5
Ocean	203	173	17.3	9,960	11,530	-13.6	2.4	2.8
Passaic	49	49	N/C	1,499	1,213	23.6	1.3	1.0
Salem	648	613	5.7	96,585	101,903	-5.2	44.6	47.1
Somerset	414	391	5.9	49,508	54,034	-8.4	25.4	27.7
Sussex	613	539	13.7	73,161	84,107	-13.0	21.8	25.0
Union	35	35	N/C	579	565	2.4	0.9	0.8
Warren	608	544	11.8	87,358	86,650	0.8	38.0	37.7
New Jersey	8,277	7,984	3.7	916,331	987,309	-7.2	19.2	20.7

N/C - No Change

* report represents data only for counties with 10 farms or more

Source: U.S. Department of Commerce, Bureau of the Census

- . Fifty-one percent of the operators reported farming as their principal occupation, but 48 percent of all operators work 100 days or more off the farm.
- . Eighty-four percent of the farms were operated by individuals or families as sole proprietorships; 732 by partnerships; and 563 by corporations, of which 91 percent were family held.
- . Ninety percent of the farmers owned all or part of the farms they operated; 5,474 were fully owned, 1,954 were partly owned; and 849 were operated by tenants.

COMPARABILITY

The 1982 and 1978 censuses were conducted in 1983 and 1979, respectively, primarily by mail. Despite every effort to assemble a complete list, a small portion of the nation's farms were not included on the census mail list. To improve the coverage of the 1978 census, especially in counting the number of small farms, the mail-out/mail-back enumeration was supplemented by personal canvass of all households in a sample of areas in all states except Alaska and Hawaii. Due to budget reductions, the direct enumeration sample was eliminated in the 1982 census. In order to provide comparable data for 1982 and 1978, estimates from the area sample have been subtracted from the 1978 data. Thus, all 1978 data presented in the 1982 census' publications include figures only for farms on the 1978 mailing list. This collection procedure could have had a noticeable effect on the data for New Jersey, since over half of all the state's farms are considered small farms.

AVAILABILITY

Single copies of preliminary state and county reports may be obtained by contacting the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402.

Copies of the report for reference only are available at the NJ State Library and Newark Public Library.

WHAT IS YOUR CENSUS IQ?
(The answers are on the following pages)

1. A person is never counted twice in any census tabulation. True False
2. A student living in a college dorm at the time of the 1980 census is counted as part of the population of his/her parent's residence. True False
3. Population and housing unit totals in sample reports do not always coincide with those in complete count reports. True False
4. One person living alone in an apartment is a household. True False
5. A group consisting of a mother, a father, their 2 children, and both sets of grandparents living together in 1 housing unit is counted as 3 families. True False
6. A person born on April 2, 1960 was 20 years old at the time of the 1980 census. True False
7. The 15 race categories on the 1980 census questionnaire included White, Black, Japanese, Indian (Amer.), Aleut., Puerto Rican, etc. True False
8. Persons of multiracial parentage who listed both races on the 1980 census questionnaire are counted twice. True False
9. There was a question on religious affiliation on the 1980 census form. True False
10. A person's income is equal to his/her earnings. True False
11. Average family income was not asked on the 1980 census questionnaire. True False
12. According to the 1980 census, a college sophomore has completed 2 years of college. True False
13. Unemployed persons are counted as part of the labor force. True False
14. Persons with a job but on vacation during the entire month of March 1980, are counted as part of the employed. True False

- | | | | |
|-----|--|------|-------|
| 15. | "Class of worker" is equivalent "occupation." | True | False |
| 16. | The concept "employed" in the 1980 census is the same as "employees" in the 1982 Economic Censuses. | True | False |
| 17. | The 1980 census EEO (Equal Employment Opportunity) file contains data on years-of-school completed. | True | False |
| 18. | Data from the special 1980 census Neighborhood Statistics Program will be published in 3 reports by the Census Bureau. | True | False |
| 19. | Census tract boundaries may cross MCD (Minor Civil Division) boundaries, but they never cross county or state lines. | True | False |
| 20. | The best way to obtain census data for New Jersey is to call the Census Bureau in Suitland, MD and ask for the 1980 census for New Jersey. | True | False |
| 21. | STF is the Census Bureau's abbreviation for Short Form. | True | False |
| 22. | CENSPAC is a "user-friendly" computer software designed only to access 1980 census files. | True | False |
| 23. | The 1982 Economic Censuses were conducted in 1983. | True | False |
| 24. | County Business Patterns is an annual publication and contains data only for states and counties. | True | False |
| 25. | Data from the CPS (Current Population Survey) are only available by accessing the computer files. | True | False |

ANSWERS

1. False One example is the tabulation of persons by multiple ancestry groups (persons may have indicated they were Irish-English; they would have been counted as part of the "Irish and other groups," and "English and other groups").

2. False Colleges students are only counted at their parents' residences if they live there.
3. True A complicated weighting procedure is used to inflate results of the sample questions to reflect or estimate the characteristics of the total population. The weights are derived from the ratio of complete-count to sample cases within particular areas and particular subgroups of the population. Variations in population and housing unit totals between sample and complete count reports occur whenever the data are for a geographic area that does not happen to equal a sample weighting area or a combination of two or more sample weighting areas. (See pages 92 and 94 of 1980 Census Users Guide, Part A.)
4. True A household is defined as one or more persons occupying the same housing unit.
5. False A family is defined as two or more persons, including the householder, who are related by birth, marriage, or adoption, and who live together as one household; such persons are considered as members of one family.
6. False Age is tabulated as of April 1 (Census Day).
7. False "Puerto Rican" is an ethnic, not a racial category. A person of Spanish origin may be of any race.
8. False They are counted once and according to their mothers' race.
9. False
10. False Income is the sum of amounts reported separately for income from wages and salaries; nonfarm self-employment; interest, dividends and net rentals; Social Security; public assistance; and all other sources. Earnings only includes wages or salary income and net self-employment income from nonfarm and farm sources.
11. True Average or mean family income is a derived variable provided in census products. It represents the amount obtained by dividing the total income of all families in an area by the number of families.

12. False If college students are sophomores or in their second year of college on census day, they are included in the category "1 year of college."
13. True The labor force includes persons employed and unemployed.
14. True According to the census definition, the employed include persons who were either (a) "at work"; or (b) "with a job but not at work."
15. False Classification of workers is determined according to the type of ownership of the employing organization, e.g., private, government, self-employed; occupation refers to the kind of work the person was doing at a job or business during the reference week, e.g., manager, salesperson, teacher.
16. False There are several differences. Two of these are: (1) The 1980 census data are tabulated according to a person's place of residence; the 1982 Economic Censuses data are tabulated according to the place of work. (2) Persons employed at more than one job are counted only once in the census; in the Economic Censuses, persons who work for more than one establishment may be counted more than once.
17. True The EEO file contains two tables: (1) occupation of the experienced civilian labor force by sex, race, and Spanish origin; and, (2) years of school completed by age, sex, race or Spanish origin.
18. False Data from the Neighborhood Statistics program are available only on computer file and microfiche. Participating jurisdictions received tables and narratives in hard (paper) copy.
19. True Census tracts and blocks may cross MCD boundaries.
20. False Census data are available through the NJSDC network, which consists of over 90 agencies. Identifying specifically what data are needed, or, if this is unknown, indicating what one is attempting to do (e.g., finding the best location to open a business, identifying the characteristics of the labor force pool for affirmative action programs) expedites data requests.

21. False STF is the Census Bureau's abbreviation for Summary Tape File. 1980 census data are available on 5 STFs, each containing a broad range of characteristics of population and housing by areas.
22. False CENSPAC is not "user friendly" (as typically defined). Also, although it was specifically designed for accessing 1980 census files, it could be used to retrieve data from other files.
23. True The 1982 Economic Censuses were conducted in 1983, but the data are collected for the year 1982.
24. True County Business Patterns (CBP) contain data on the number of employees, first quarter and annual payroll, and number of establishments by employee size class by industrial sector for states and counties. Published annually, a CBP is available for each state.
25. False Selected data are published from the Current Population Survey (CPS) in various reports by both the U.S. Bureau of the Census and U.S. Bureau of Labor. The CPS is a monthly household survey.

SCORING

- 23 - 25 Correct: Congratulations! Be sure to attend the 1990 Census Local Public Meeting in October, 1984 in New Jersey.
- 18 - 22 Correct: Very Good! You qualify for the U.S. Census Bureau's 1980 Census: An Intermediate Workshop. For more information, contact the Bureau's User Training Branch (301-763-1510).
- Less than 17 correct: A copy of the "1980 Census Users Guide" is available for sale by the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402, or any U.S. Department of Commerce district office.

N J S D C P U B L I C A T I O N S O R D E R F O R M

(Note: There is a Limit of 1 Copy of Each Free Publication Per Agency)
(Please allow 3-4 weeks for delivery)

Table with columns: PRICE, QUANTITY, TOTAL AMOUNT (if applicable). Rows include 1980 CENSUS PRODUCTS (NJ 1980 Census Counts, NJ Population Per Household, County Profiles, Municipal Profiles, etc.) and OTHER DATA PRODUCTS (County Summary, 1981; NJ's Growth Areas). MISCELLANEOUS (Statistical Source Directory, Subscription to NJSDC Newsletter).

MAKE CHECK PAYABLE TO: New Jersey Department of Labor

MAIL TO: Connie O. Hughes, Staff Director
New Jersey State Data Center
Division of Planning & Research
Department of Labor, CN 388
Trenton, NJ 08625-0388

TOTAL AMOUNT
ENCLOSED \$ _____

NAME: _____

AGENCY: _____ PHONE: _____

MAILING ADDRESS: _____

ZIP: _____

STATE OF NEW JERSEY
DEPARTMENT OF LABOR
DIVISION OF PLANNING AND RESEARCH
CN 388
TRENTON, NEW JERSEY 08625 - 0388

BULK RATE
U.S. Postage Paid
TRENTON, N.J.
Permit No. 21

NOTICE

This newsletter will publicize any Census, population, planning and economic conference or seminar to be held in New Jersey. Please send all pertinent information, including the name and phone number of a contact person, to Connie O. Hughes, Office of Demographic and Economic Analysis, New Jersey Department of Labor CN 388, Trenton, New Jersey 08625.