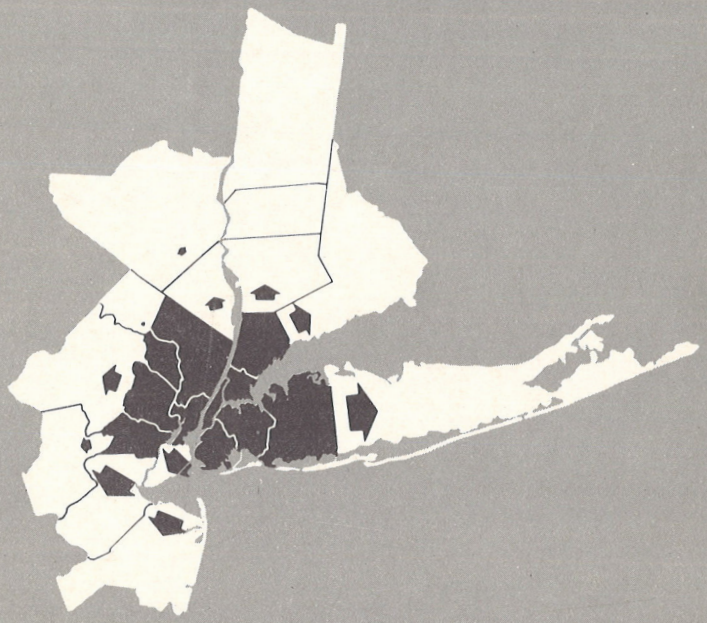
NEW JERSEY
NEW YORK
CONNECTICUT

REGIONAL PLAN ASSOCIATION



PEOPLE, JOBS AND LAND 1955-1975

in the New Jersey - New York - Connecticut Metropolitan Region

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NUMBER 87
JUNE 1957

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PEOPLE, JOBS AND LAND 1955-1975

in the New Jersey - New York - Connecticut Metropolitan Region

This bulletin was prepared under the general supervision of Henry Fagin, planning director, by Stanley B. Tankel, senior planner and David Malamud, planner, assisted by George A. Schiller, planning engineer, Roy E. Miller and Helen Lee, research assistants of the Regional Plan Association staff.

The findings are based on studies conducted by the Association in 1956 for the Metropolitan Rapid Transit Survey under the direction of Henry Cohen project manager, and Max E. Anderson, assistant project manager, with Ladislas Segoe as planning consultant.

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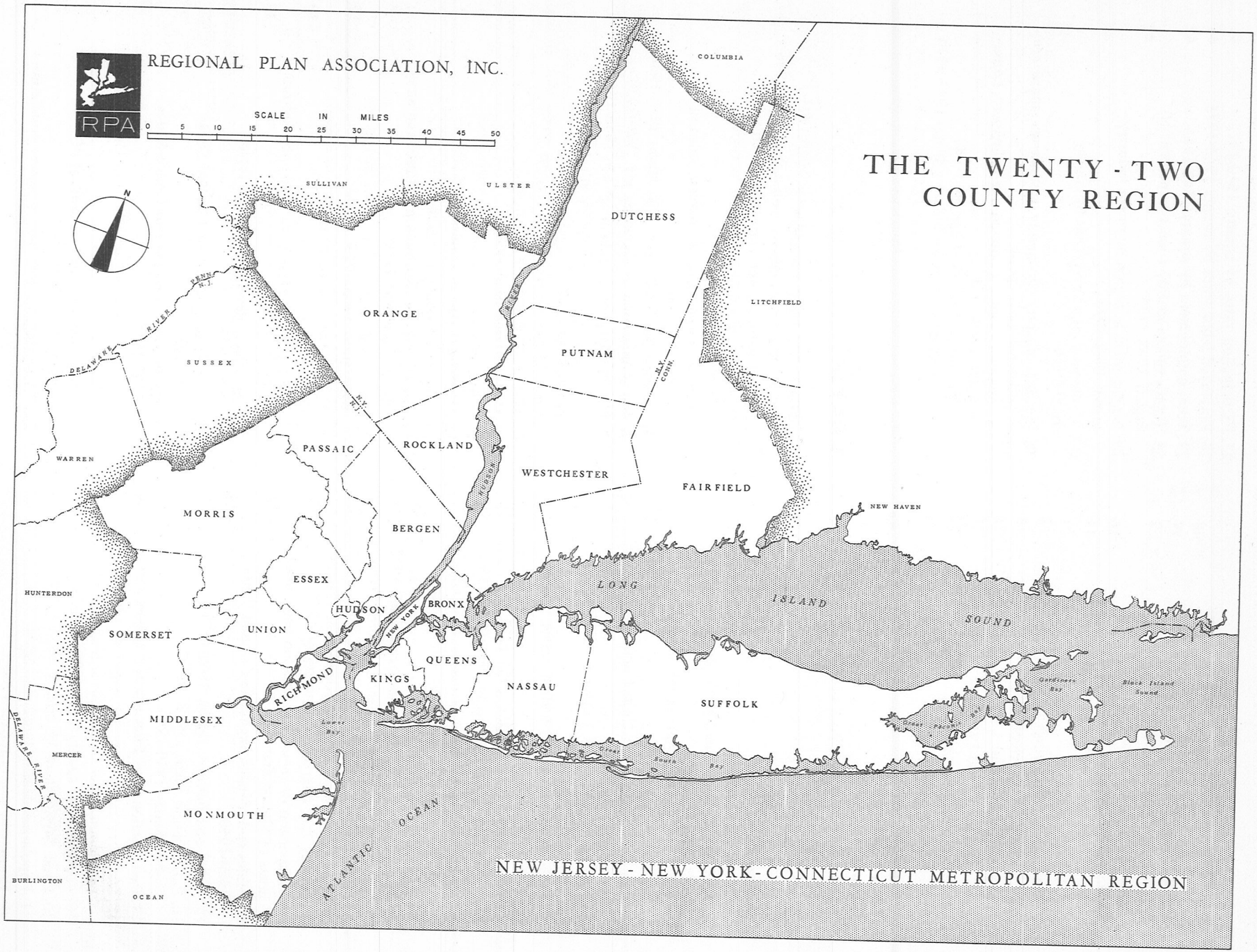
Maps

Tables

In the final chapter on county summaries, there are three tables for each county:

a. Summary table: population, employment, households 1940-1975
b. Extend of land development 1954
c. Employment by major industry group 1942-1955

Charts


REGIONAL PLAN ASSOCIATION, INC.
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SCALE IN MILES
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N
THE TWENTY-TWO COUNTY REGION
COLUMBIA
SULLIVAN
ULSTER
DUTCHESS
LITCHFIELD
ORANGE
PUTNAM
SUSSEX
DELAWARE RIVER
PENN. N.J.
N.Y. CONN.
N.Y. N.J.
WARREN
PASSAIC
ROCKLAND
WESTCHESTER
FAIRFIELD
NEW HAVEN
MORRIS
BERGEN
HUNTERDON
ESSEX
HUDSON
BRONX
LONG ISLAND SOUND
SOMERSET
UNION
NEW YORK
QUEENS
KINGS
RICHMOND
NASSAU
SUFFOLK
MIDDLESEX
MERCER
DELAWARE RIVER
MONMOUTH
BURLINGTON
OCEAN
ATLANTIC OCEAN
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 1

INTRODUCTION

This bulletin presents the findings of a two-year study of people, jobs and land in the New Jersey-New York-Connecticut Metropolitan Region. It reports past trends and current facts about a great many aspects of the region. It includes new forecasts of population and of employment for the region's 22 counties. It is based primarily upon work undertaken in 1955 and 1956 at the request of the bi-state Metropolitan Rapid Transit Survey.

This is the 87th bulletin of a series published by the Region Plan Association over the last three decades on a wide variety of subjects. In addition to updating earlier bulletins on population and employment, it presents detailed information not available previously.

For example, inside the back cover there is a map in full color showing how land is now being used in all parts of the region. Sections of the bulletin deal with such characteristics of the region's population as the proportion of persons of different ages, sexes and ethnic backgrounds. Facts about migration to and from the region are given. And the bulletin presents new data about recent county employment levels, with trends for each major group of commercial and industrial activities separately analyzed.

The bulletin has three main sections:

(1) The Summary reviews the major findings briefly and presents them mostly in maps and charts for quick reading.

(2) The two following chapters discuss the findings in detail and explain how we arrived at them.

(3) The last chapter spotlights each of the region's 22 counties in turn, highlighting the pertinent statistics and suggesting the main forces at work which are likely to influence each county's future.

While the Metropolitan Rapid Transit Survey made this work possible, it could not have been achieved without the active cooperation of a great many agencies and individuals in the region. This help included several departments in the state governments of New Jersey, New York and Connecticut; county planning agencies and other county departments; several New York City departments; the utility companies of the region; and a long list of professional consultants in municipal planning, land economics and engineering. Their invaluable assistance is gratefully acknowledged.

The results presented in this bulletin should be distinguished from estimates of people and jobs which will result from a study of a different nature now under way: The New York Metropolitan Region Study being undertaken for the Regional Plan Association by the Graduate School of Public Administration of Harvard University. This latter study is a basic analysis of the economic, sociological, population and other forces which are at work and which will determine the future development of the metropolitan region. It will give a better basis than exists today for projections of the distribution and characteristics of jobs and people over the next quarter century.*

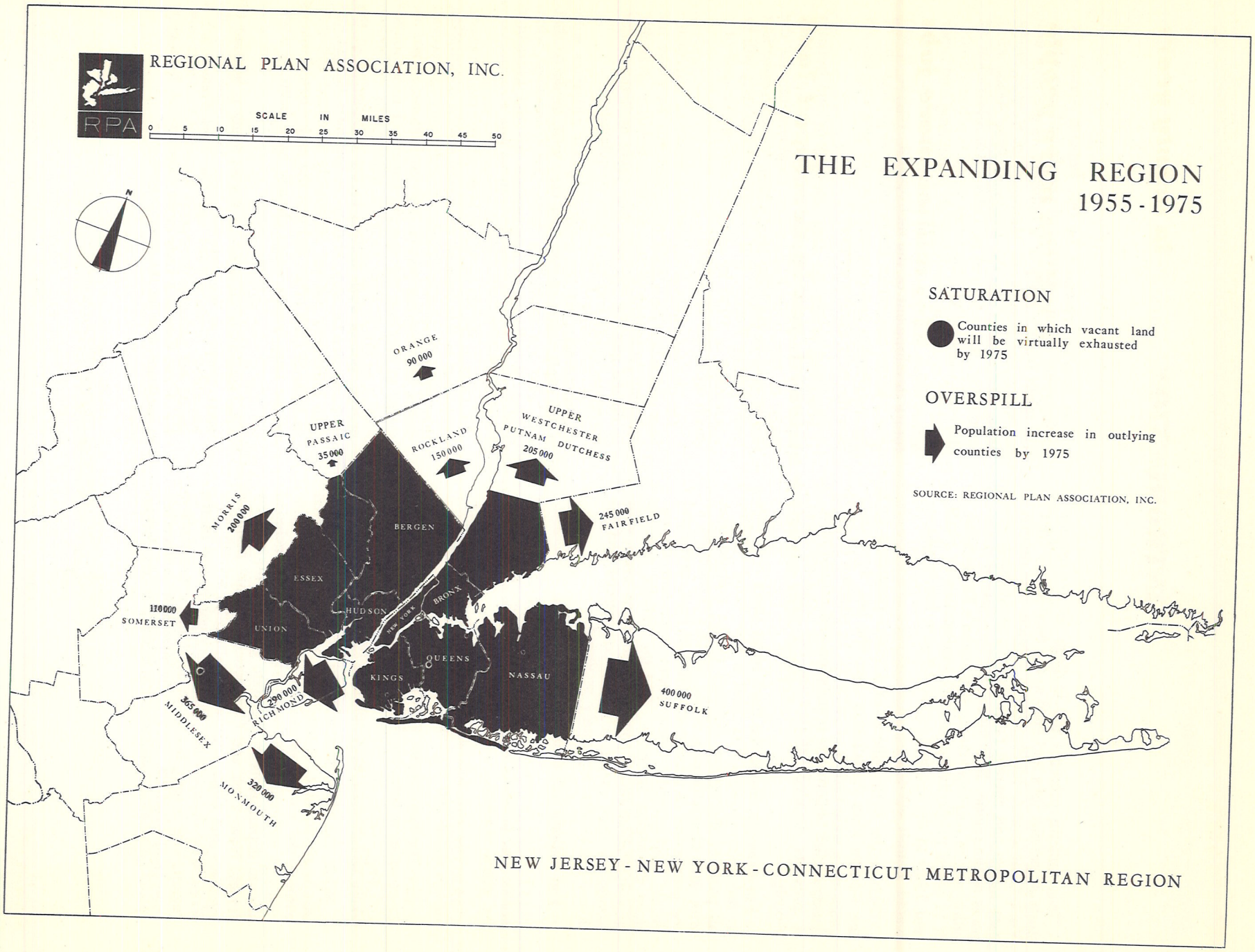
Therefore, while the data released in this bulletin represent the most complete analysis so far undertaken of trends in population, employment and the use of land in the New Jersey-New York-Connecticut Metropolitan Region, it is anticipated that they will be superseded in 1959 by analyses and projections of a much more definitive kind.

Despite its obvious limitations, many of our members and subscribers have requested that we make the material presented in this bulletin publicly available to fill the gap for the next few years until the major economic study will have been completed.

Accordingly, we are publishing our estimates with a full explanation of just how they were made so that any who use them may judge for themselves what degree of reliance is appropriate for the particular purpose to which the figures will be put.

Finally, it should be borne in mind that the forecasts presented in this bulletin are based on the assumption that times of relative prosperity and peace will prevail during the forecast period. The projections do not attempt to measure the specific impact of new technological developments such as automation or atomic energy, nor of such factors as the completion of the St. Lawrence Seaway. Mainly the forecasts assume that new influences not yet adequately analyzed will tend to balance each other and that the major determinants of the next twenty years already have been at work.

*The New York Metropolitan Region Study is financed by equal grants to the Regional Plan Association from the Rockefeller Brothers Fund and The Ford Foundation. A special staff under the direction of Raymond Vernon is working on this three-year study in the offices of the Association. Completion date for the study is June 1959.


REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 50
N
THE EXPANDING REGION
1955 - 1975
SATURATION
Counties in which vacant land will be virtually exhausted by 1975
OVERSPILL
Population increase in outlying counties by 1975
SOURCE: REGIONAL PLAN ASSOCIATION, INC.
ORANGE
90 000
UPPER PASSAIC
35 000
ROCKLAND
150 000
UPPER WESTCHESTER
PUTNAM
DUTCHESS
205 000
MORRIS
200 000
BERGEN
245 000
FAIRFIELD
ESSEX
HUDSON
BRONX
NEW YORK
110 000
SOMERSET
UNION
QUEENS
KINGS
NASSAU
400 000
SUFFOLK
365 000
MIDDLESEX
290 000
RICHMOND
320 000
MONMOUTH
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 2

SUMMARY

in twenty years

4 million more people

The twenty-two county region will increase its population from 15 million in 1955 to 19 million in 1975

1½ million more jobs

Its employment will increase from 6¼ million to 7¾ million

over 700 square miles of newly developed land

Intensively developed land will increase from 1100 square miles to more than 1800 square miles

TABLE 1 POPULATION AND EMPLOYMENT IN THE REGION BY COUNTY 1955 AND 1975, WITH ABSOLUTE AND PERCENT CHANGE 1955 TO 1975

	POPULATION (in thousands)				EMPLOYMENT			
			Change 1955-75				Change 1955-75	
	1955	1975	Absolute	Percent	1955	1975	Absolute	Percent
CONNECTICUT								
Fairfield	555	800	245	44	235	320	85	36
NEW JERSEY	4,005	5,825	1,820	45	1,415	2,100	685	48
Bergen	655	1,100	445	68	200	400	200	100
Essex	950	1,100	150	16	365	415	50	14
Hudson	645	600	– 45	– 7	245	270	25	10
Middlesex	335	700	365	109	115	235	120	104
Monmouth	280	600	320	114	70	135	65	93
Morris	200	400	200	100	55	120	65	118
Passaic	375	460	85	23	150	165	15	10
Somerset	115	225	110	96	35	60	25	71
Union	450	640	190	42	180	300	120	67
NEW YORK	10,655	12,475	1,810	17	4,625	5,280	655	14
Dutchess	165	270	105	64	60	115	55	92
Nassau	975	1,400	425	44	295	475	180	61
Orange	170	260	90	53	50	85	35	70
Putnam	25	50	25	100	*	*	*	*
Rockland	100	250	150	150	30	60	30	100
Suffolk	445	845	400	90	110	265	155	141
Westchester	735	1,000	265	36	240	350	110	46
NY excl. NYC	2,615	4,075	1,460	56	785	1,350	565	72
Bronx	1,490	1,500	10	1	230	280	50	22
Kings	2,725	2,675	– 50	– 2	665	740	75	11
New York	1,875	1,825	– 50	– 3	2,520	2,280	– 240	– 10
Queens	1,750	1,900	150	9	390	530	140	36
Richmond	210	500	290	138	35	100	65	186
New York City	8,050	8,400	350	4	3,840	3,930	90	2
Environs	7,175	10,700	3,525	49	2,435	3,770	1,335	55
REGION	15,225	19,100	3,875	25	6,275	7,700	1,425	23

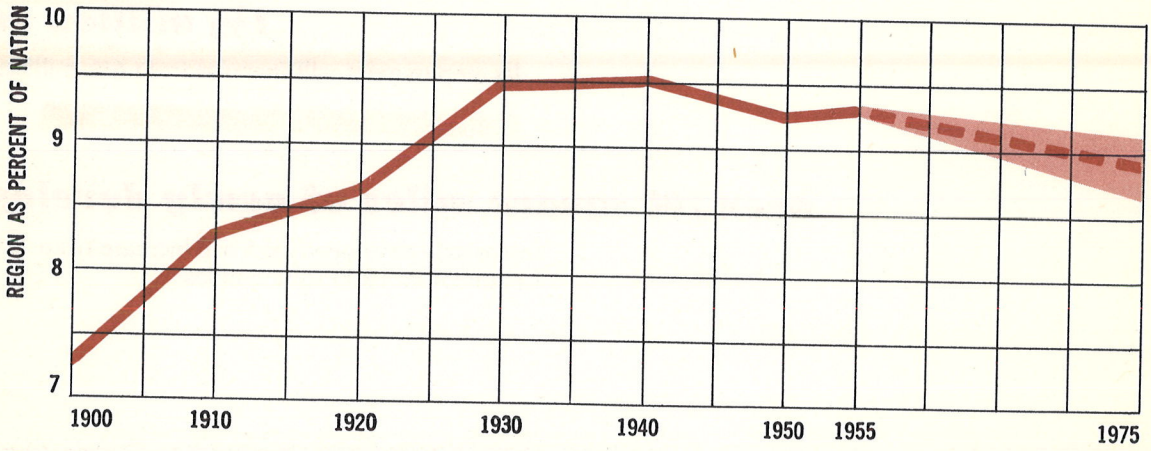
Source: RPA

*Included with Dutchess County

THE REGION'S TOTAL POPULATION

Our Region and the Nation

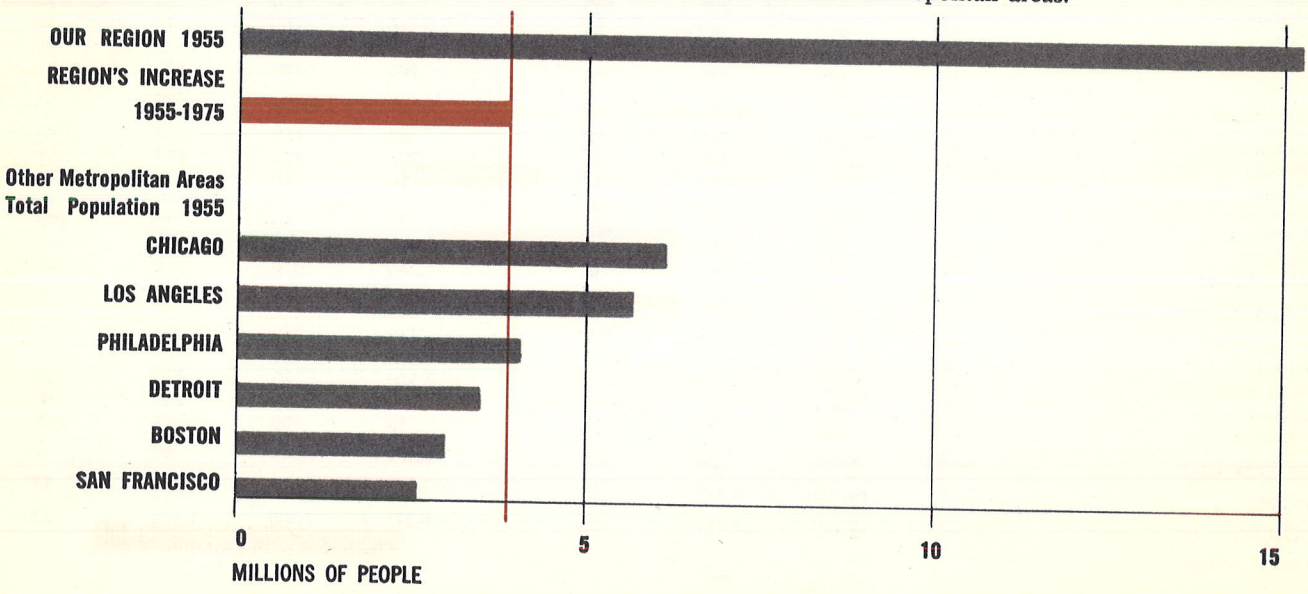
Chart 1 While the region will add an enormous number of people during the next 20 years, its rate of growth will not keep up with the national rate. The region's share of the nation's population probably will decline slightly from a high in 1940 of 9.5% to a range centering on 8.9% in 1975.



SOURCE: RPA AND US CENSUS

Our Region and Other Regions

Chart 2 The region's population *increase,* 1955-1975, will be greater than the 1955 *total* population of all but three of the nation's standard metropolitan areas.



SOURCE: RPA AND SALES MANAGEMENT

Chart 3

Total Population and Its Components Increase By Decade

TOTAL POPULATION INCREASE

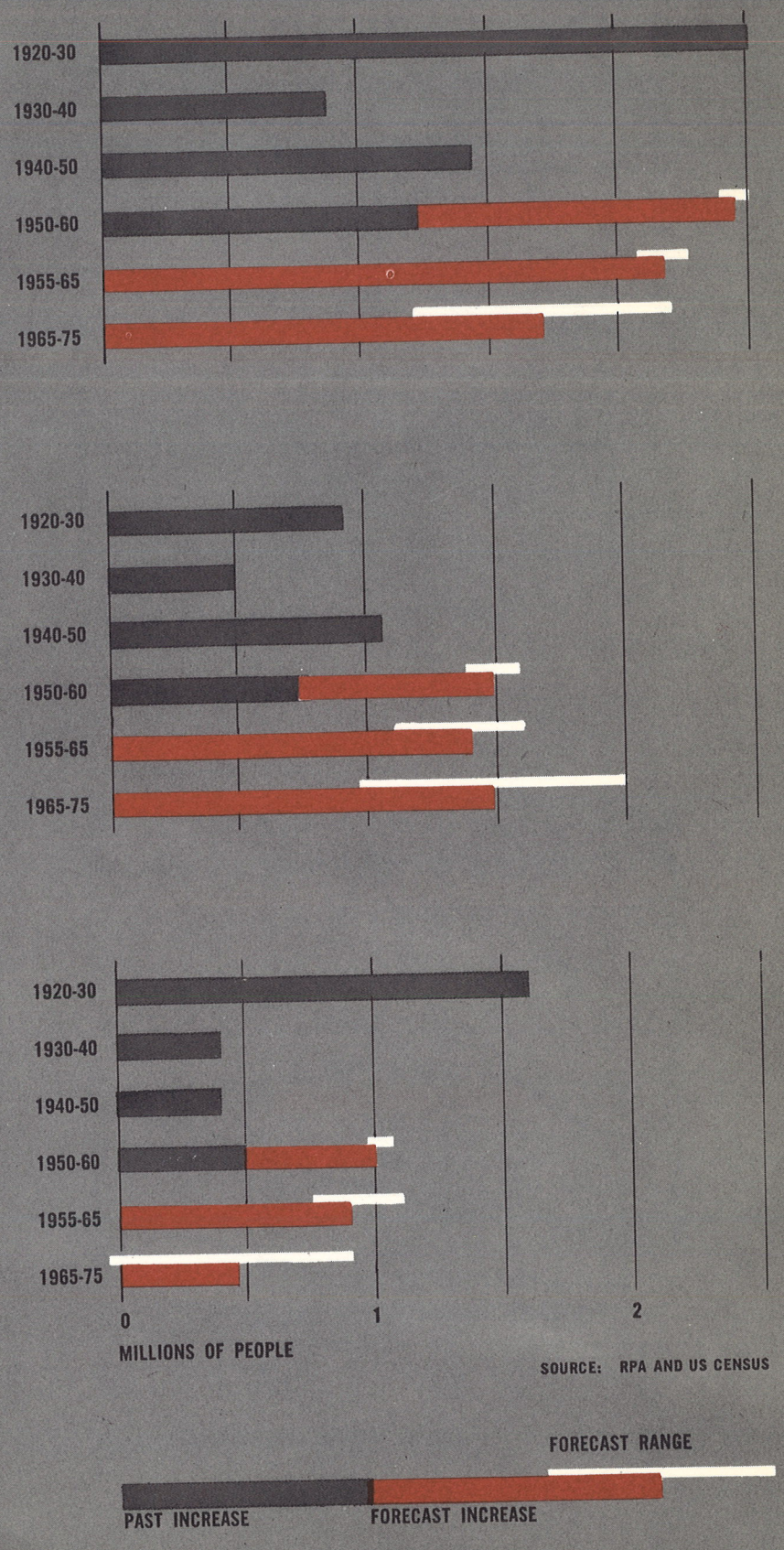
There are two components of population gain

NATURAL INCREASE

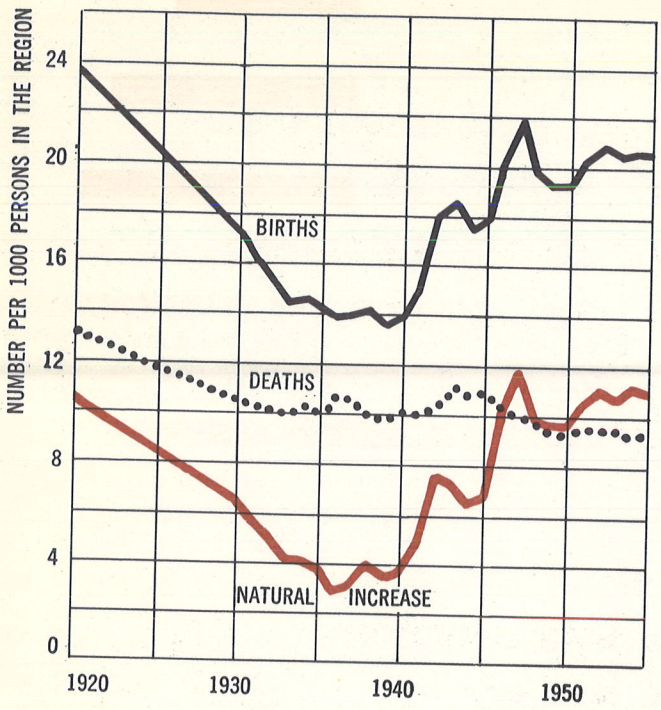
which is the number of birth minus the number of deaths.

NET IN-MIGRATION

which is the number of people who come into the region minus those who leave.



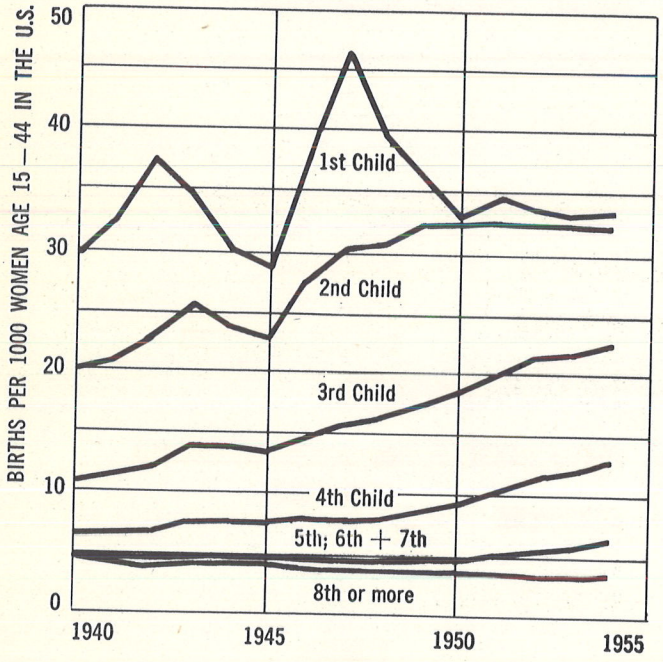
Natural Increase



SOURCE: RPA, US CENSUS AND NJ, NY AND CONN STATE DEPTS OF HEALTH

BIRTHS
minus
DEATHS
equals
NATURAL INCREASE

Chart 4 Since the death rate is relatively constant, fluctuations in the birth rate are the major causes of change in the rate of natural increase.



SOURCE: NATIONAL OFFICE OF VITAL STATISTICS

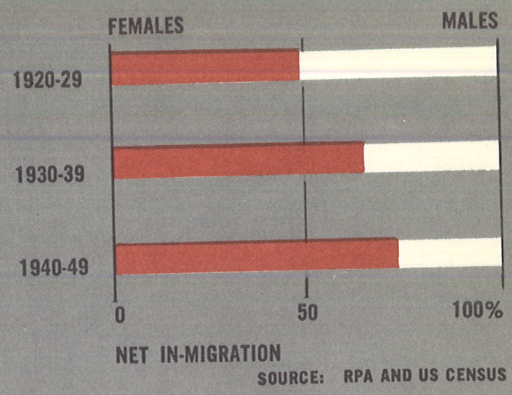
CHILDREN PER FAMILY

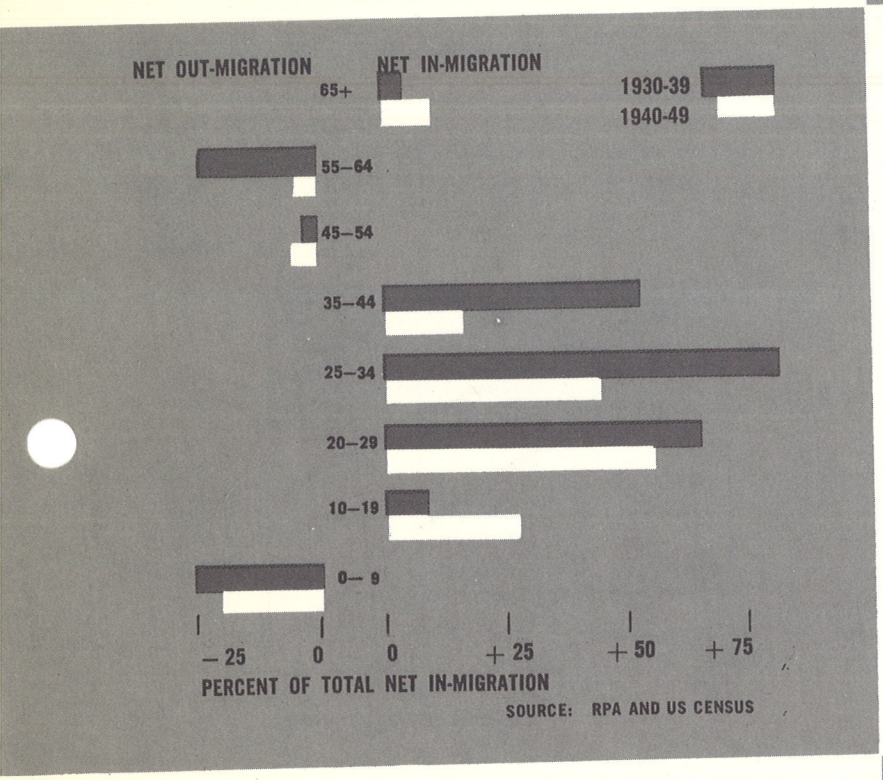
Chart 5 The main factor in the rising rate of natural increase has been the tendency towards families with more children.

Characteristics of Migrants

SEX

Chart 6 The region now is more attractive to women than to men.



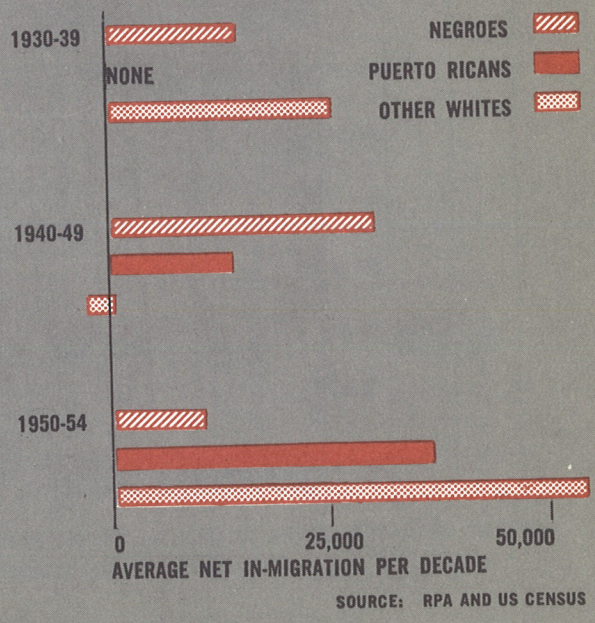


AGE

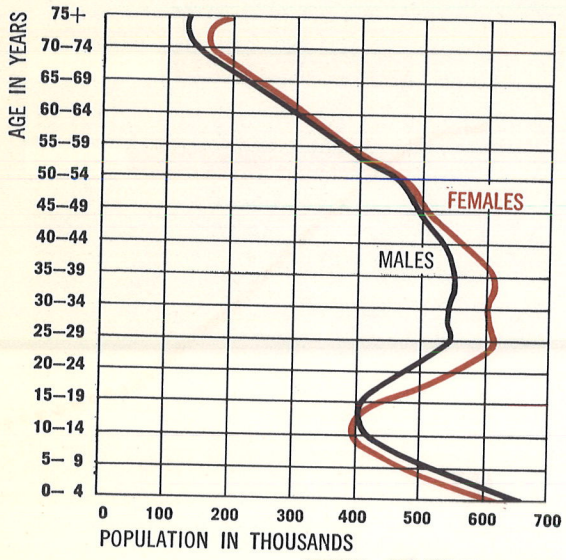
Chart 7 As compared with the 1930's, the region in the 1940's was even more attractive to persons in their most productive years.

ETHNIC

Chart 8 While the region has drawn people from elsewhere for many decades, the numbers and the place of origin have changed continually.



Sex and Age Characteristics of the Region's Population



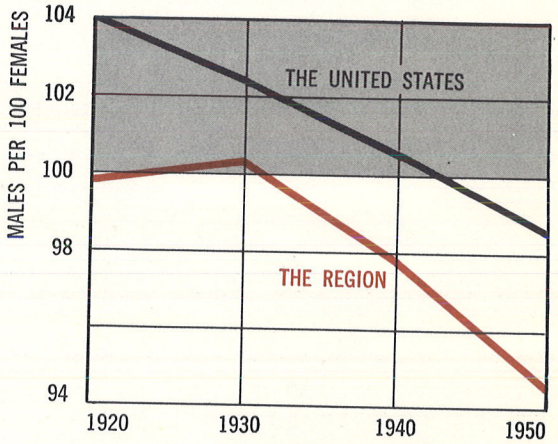
SOURCE: RPA AND US CENSUS

SEX AND AGE DISTRIBUTION

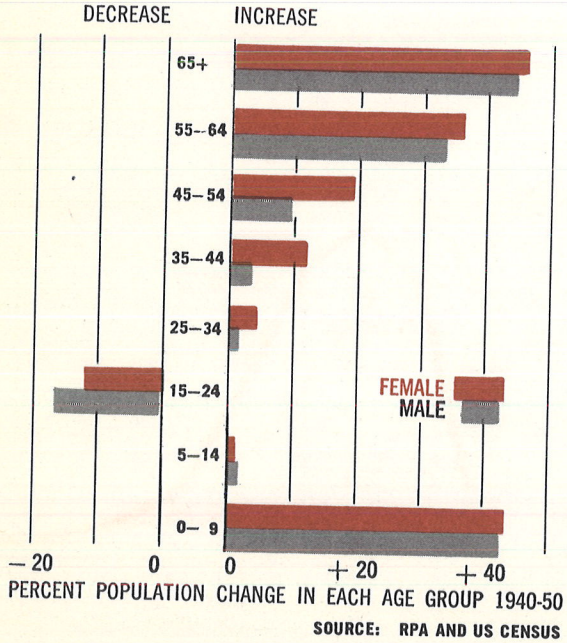
Chart 9 More males are born than females. Females live longer than males. More females than males move to the region.

MALES AND FEMALES

Chart 10 The region's proportion of males to females is lower than that for the nation and has been declining at a slightly faster rate.



SOURCE: RPA AND US CENSUS



SOURCE: RPA AND US CENSUS

OUR AGING POPULATION

Chart 11 Longer life expectancy has increased the proportion of older people. In spite of the rise in the number of children per family (Chart 7), the aging population, living in households of one or two persons, has caused a decline in average household size (Chart 14).

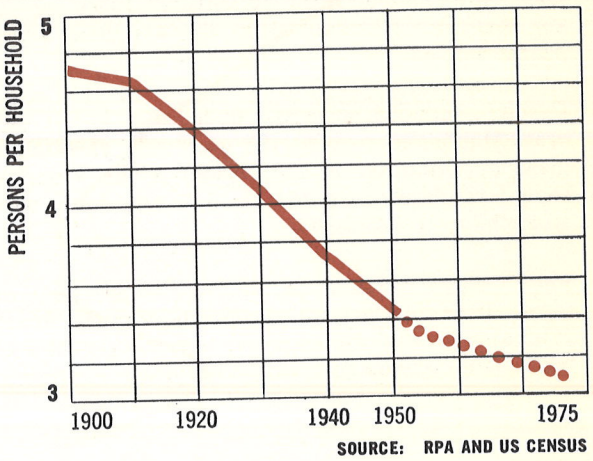
FACTORS AFFECTING GEOGRAPHIC PATTERNS OF POPULATION

Density Factors

Declining household size and increasing lot size are two chief factors causing greater per capita land requirements in the region. These trends coupled with rapid population growth have spread people far and wide over the suburban hinterland.

HOUSEHOLD SIZE

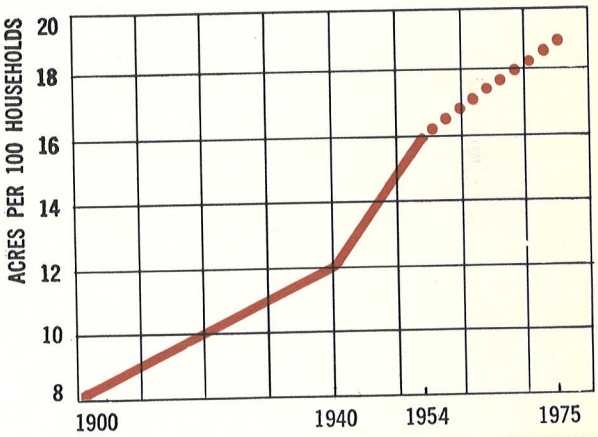
Chart 12 While the region's population has increased 2½ times since 1900, the number of households has gone up 3½ times. This has required more dwellings and more land.



SOURCE: RPA AND US CENSUS

LAND PER HOUSEHOLD

Chart 13 The amount of land developed in the region since 1900 has increased 8 times, twice as much as households. This is due mainly to the shift to a much higher population of one-family homes and to lower density in multi-family structures.

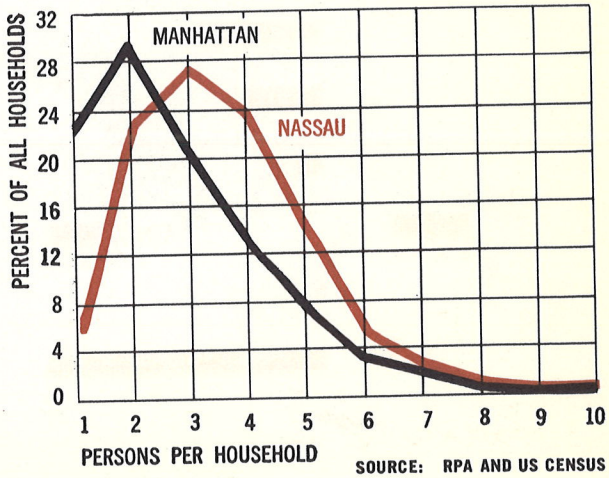


SOURCE: RPA AND US CENSUS

There are important variations in household size among the counties of the region.

HOUSEHOLD SIZE DISTRIBUTION

Chart 14 The smallest households occur in the core areas like Manhattan. The largest predominate in the newer suburban areas like Nassau County.

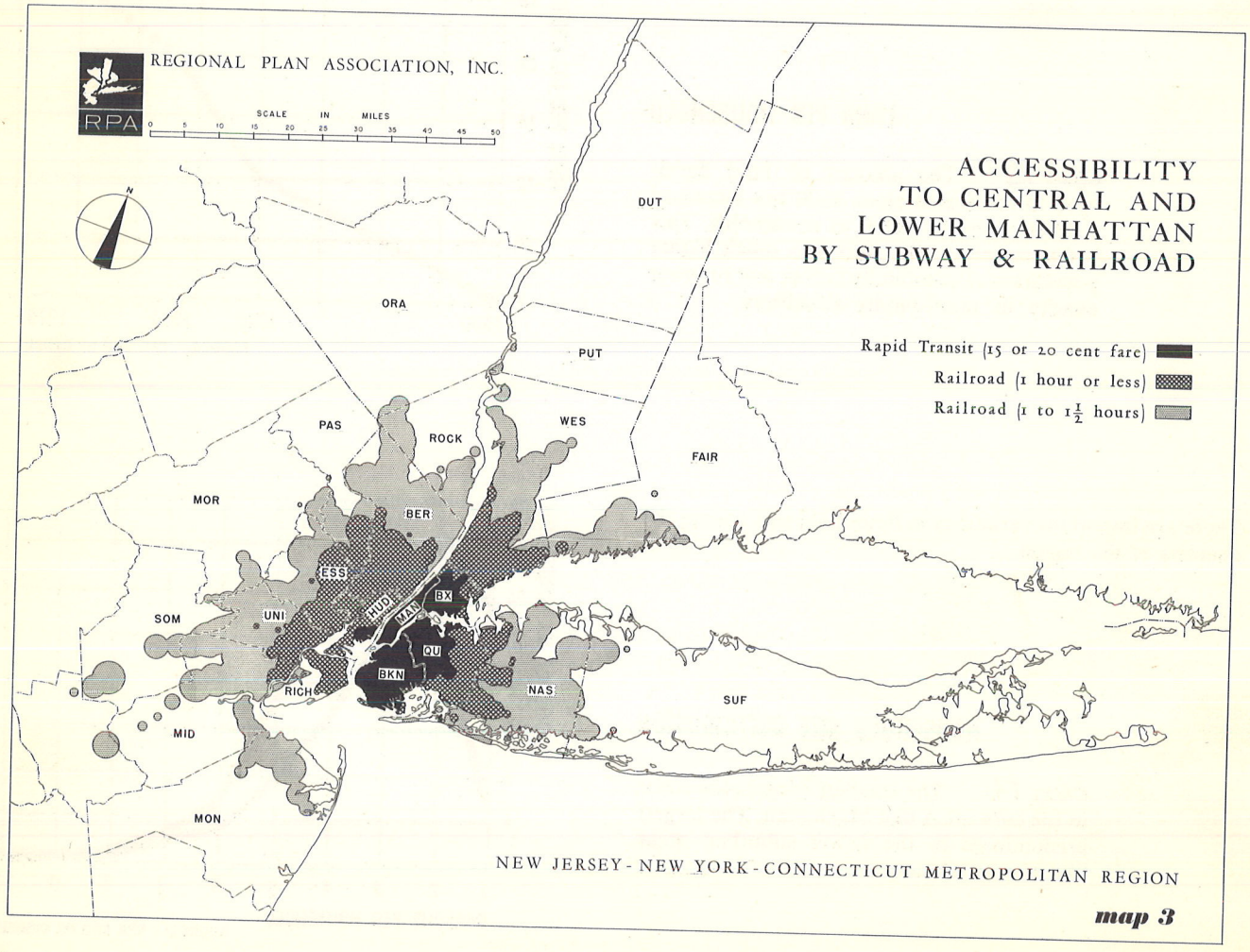


SOURCE: RPA AND US CENSUS

Which parts of the region are most accessible to jobs? How built up are they already? These are the key questions affecting where the 4 million added people will go.

Despite expanded business and industry in the suburbs, Manhattan remains the great hub of employment opportunities in the region. Maps 3 and 4 show how closely land developed to date ties in with accessibility to Manhattan.

Map 5 shows which of the built-up, mature parts of region have reached their population peak, which areas are now undergoing intensive urban growth and which areas remain comparatively rural.



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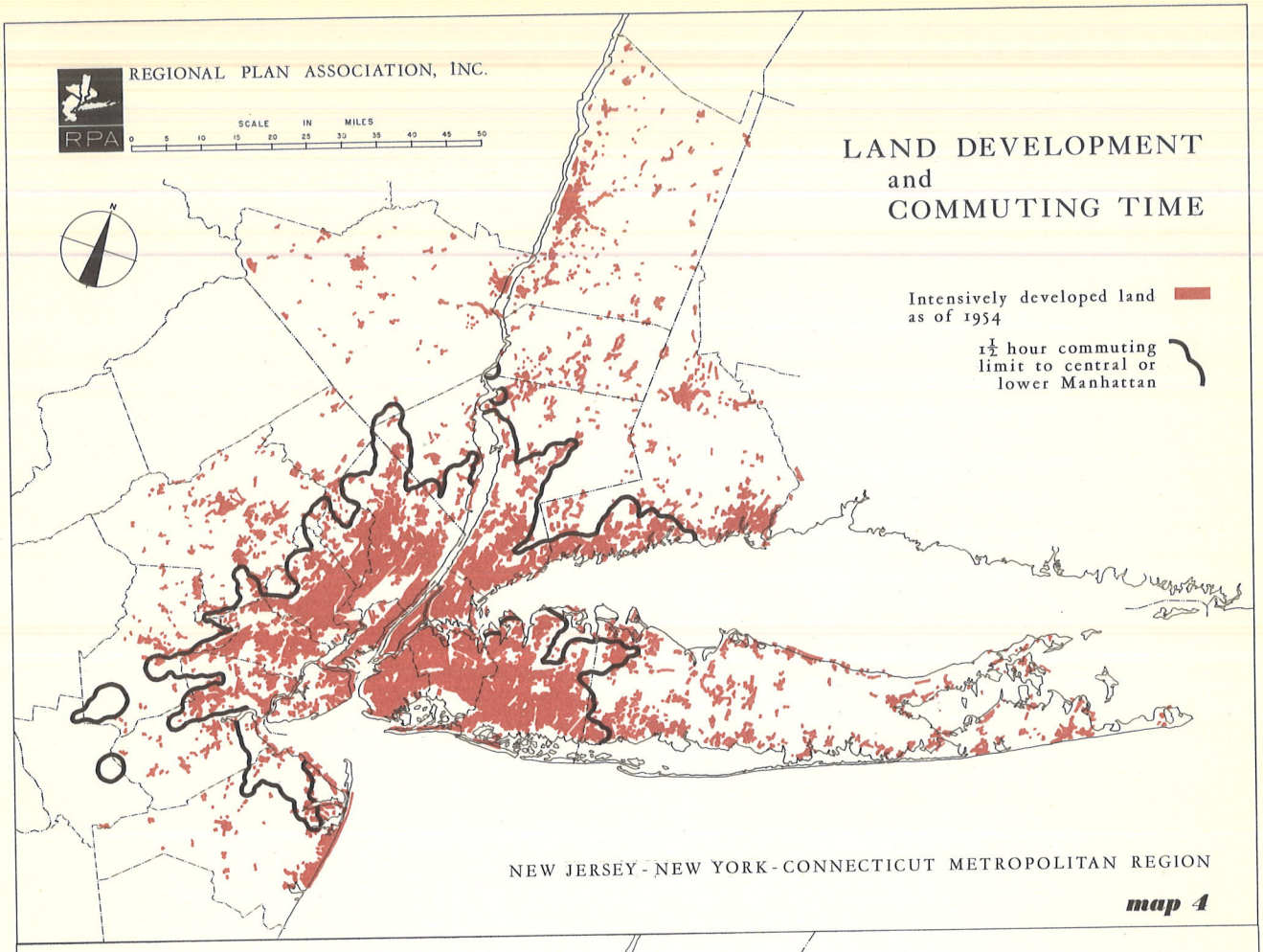
SCALE IN MILES

0 5 10 15 20 25 30 35 40 45 50

LAND DEVELOPMENT and COMMUTING TIME



Intensively developed land as of 1954

1½ hour commuting limit to central or lower Manhattan

NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 4

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SCALE IN MILES

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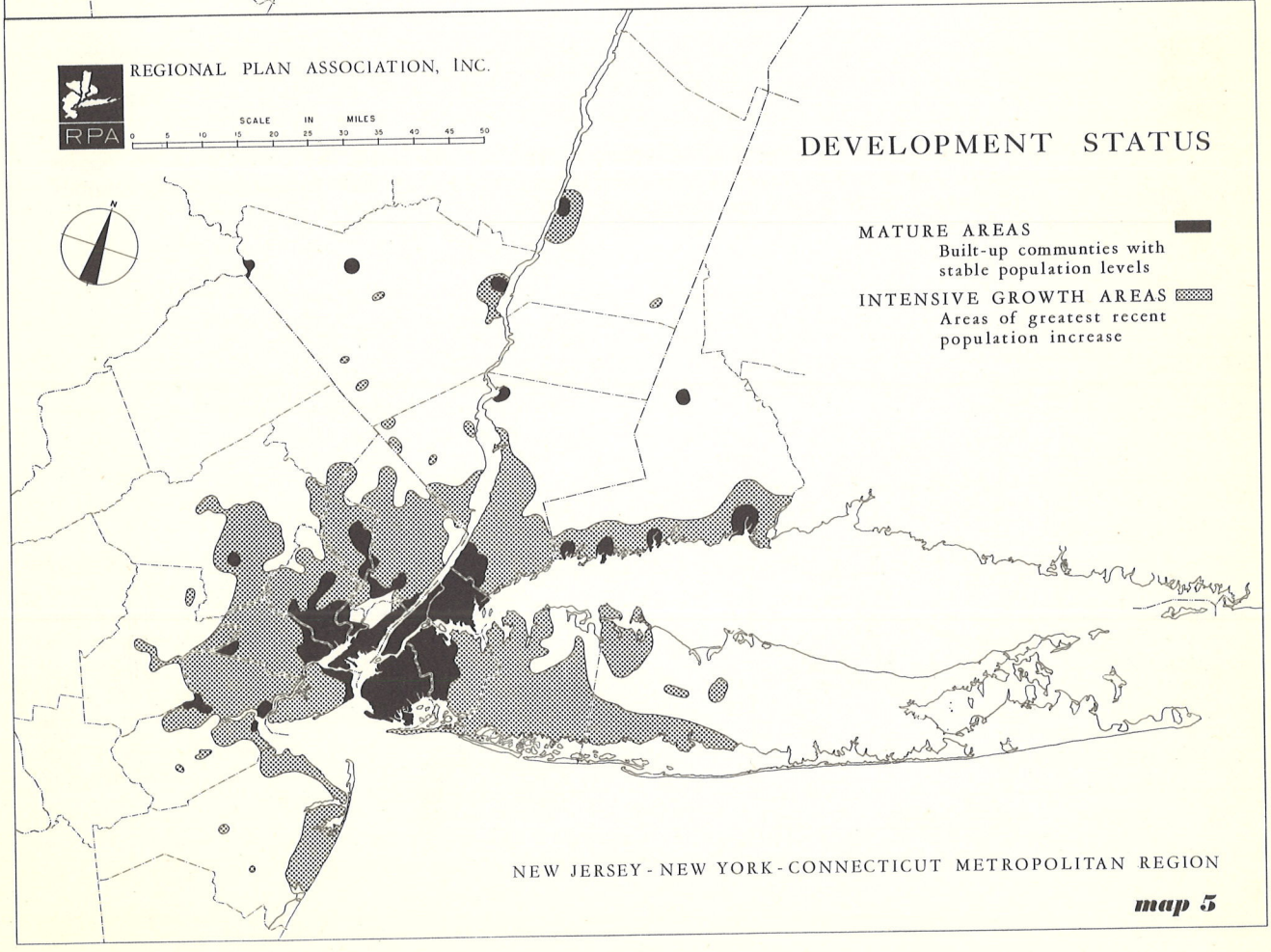
DEVELOPMENT STATUS



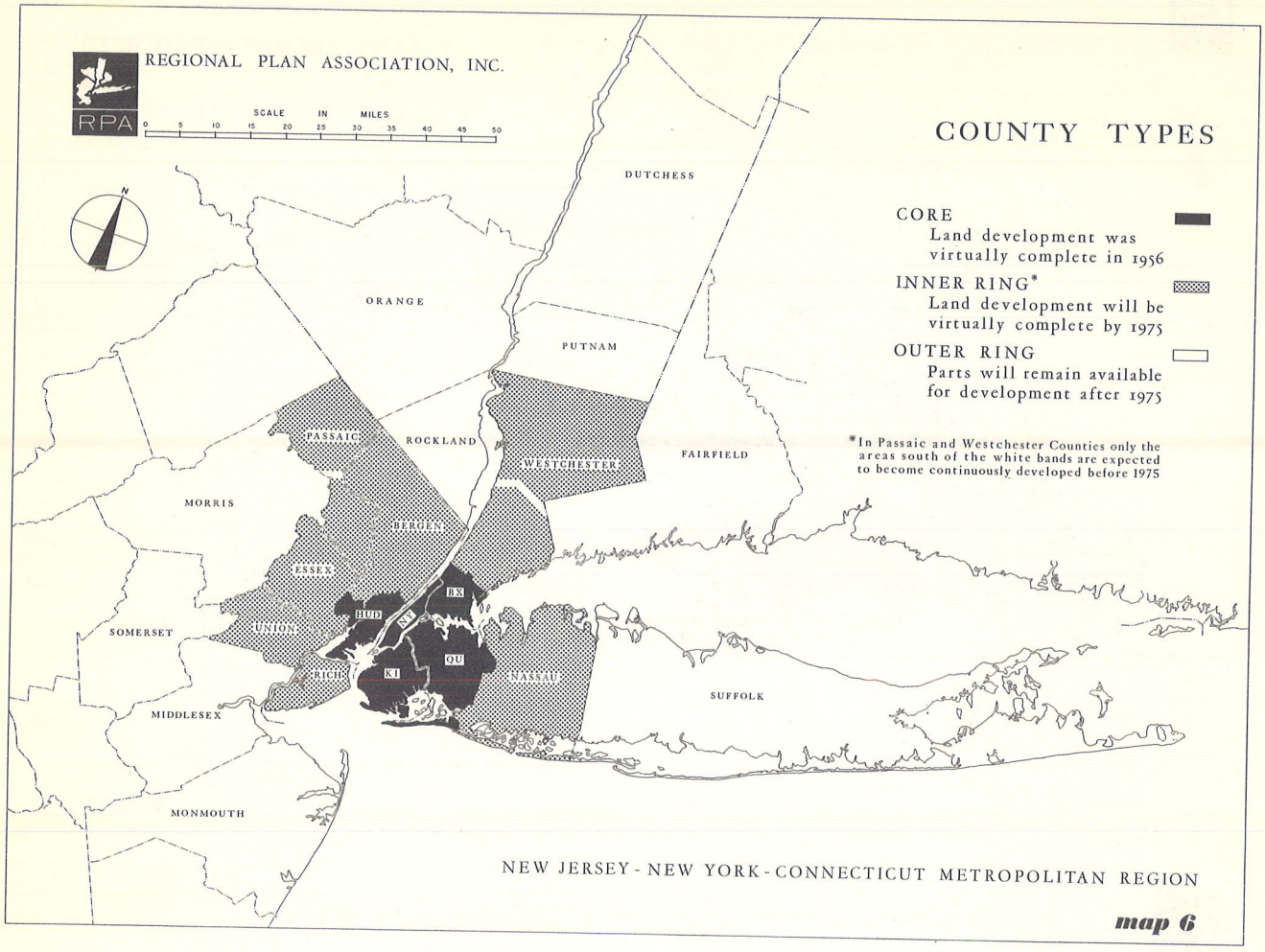
MATURE AREAS
Built-up communities with stable population levels

INTENSIVE GROWTH AREAS
Areas of greatest recent population increase

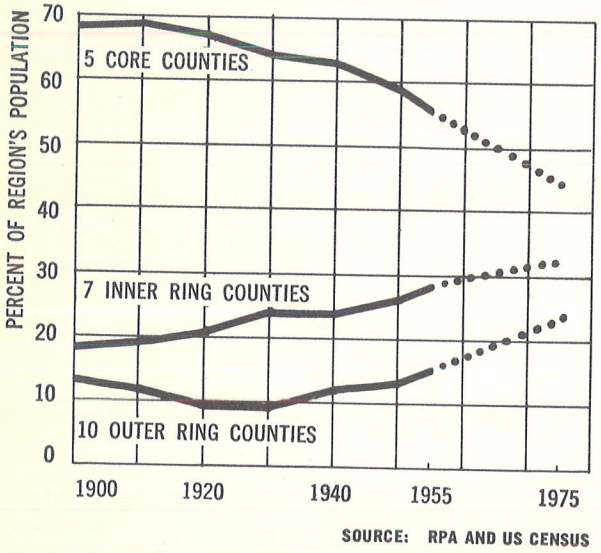
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 5

Major Rings of the Metropolitan Region



When accessibility factors and the relative maturity of region's parts are combined, the counties of the region fall into a three-ring pattern. The five core counties, the seven inner-ring counties and the ten outer-ring counties attract different kinds and amounts of population growth (Map 6).

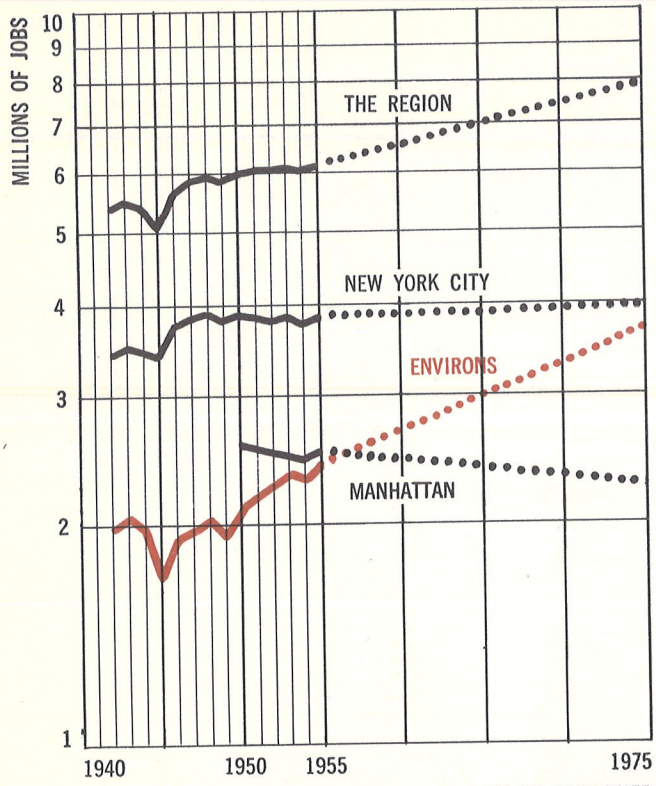


SOURCE: RPA AND US CENSUS

Chart 15 shows how the core counties, now built-up, are declining as a percent of the region.

Within each ring a variety of factors influences the distribution of population. These are illustrated and discussed in the main body of this report. They include such things as likely changes in relative accessibility arising from new patterns of highways and of employment locations; the availability of vacant land and its capacity to receive population growth; the topography and geology of land in the region; and trends in land development controls such as zoning.

THE REGION'S EMPLOYMENT



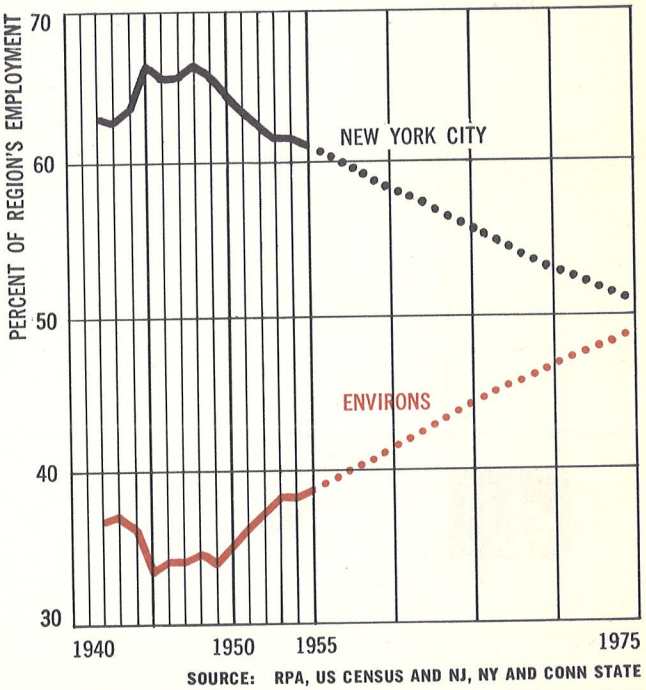
SOURCE: RPA, US CENSUS AND NJ, NY AND CONN STATE DEPTS OF LABOR

NUMBER OF JOBS

Chart 16 The region's increase of 1½ million jobs between 1955 and 1975 is expected mainly in the environs, New York City's total employment remaining stable.

NEW YORK CITY AND ENVIRONS

Chart 17 If New York City's total employment remains constant in number, the city and the environs will approach an equal share of the region's jobs by 1975.



SOURCE: RPA, US CENSUS AND NJ, NY AND CONN STATE DEPTS OF LABOR

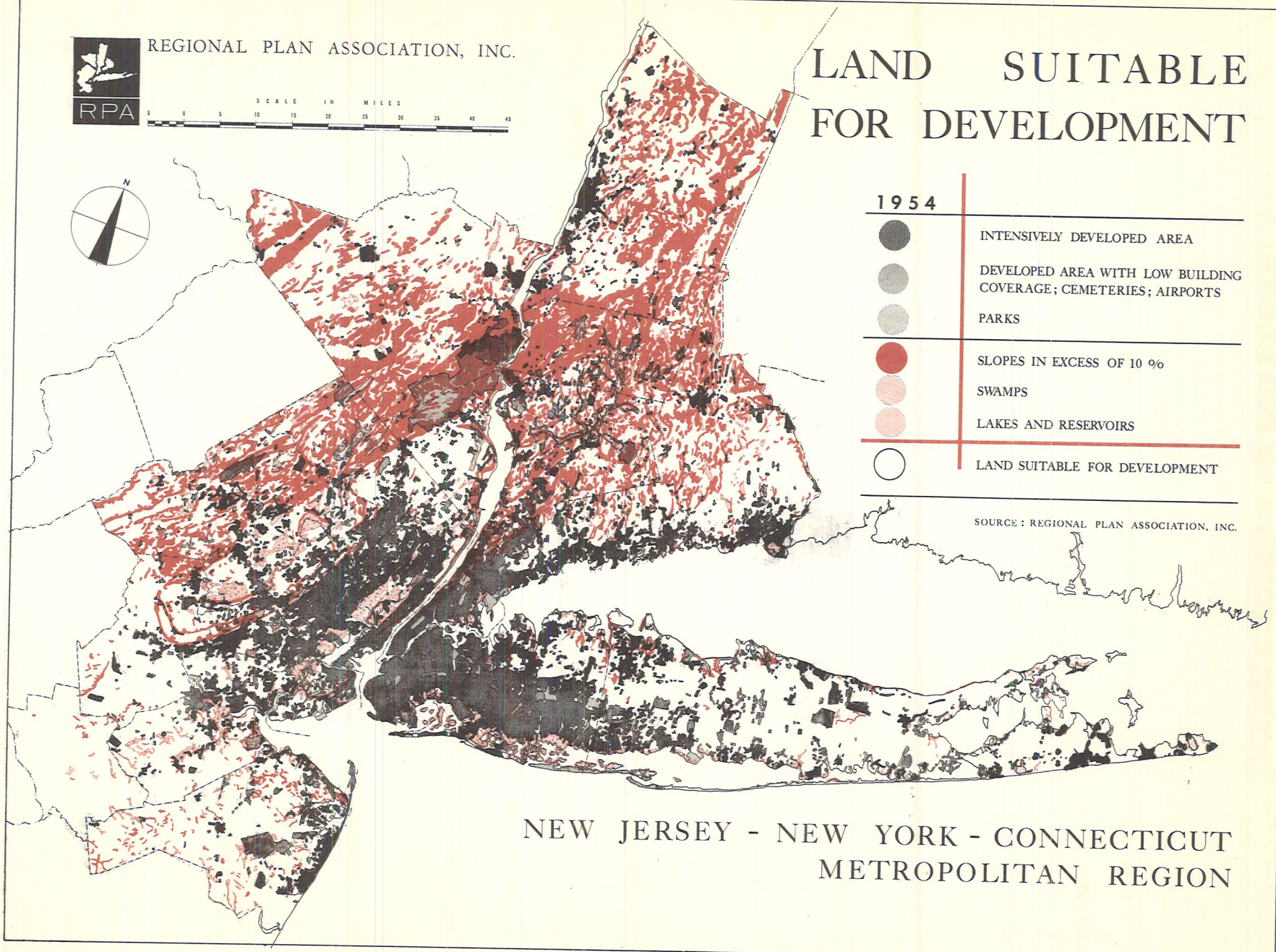
REGIONAL PLAN ASSOCIATION, INC.

RPA

SCALE IN MILES

5 0 5 10 15 20 25 30 35 40 45

LAND SUITABLE FOR DEVELOPMENT



NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 2

THE REGION'S LAND DEVELOPMENT

Map 7 The uncolored areas on the map are the more than 4,000 remaining square miles of the metropolitan region which are suitable for community development but still are either vacant or used only for farms or country estates.

The 1,100 intensively developed square miles shown in dark gray comprise residential communities and business or industrial districts.

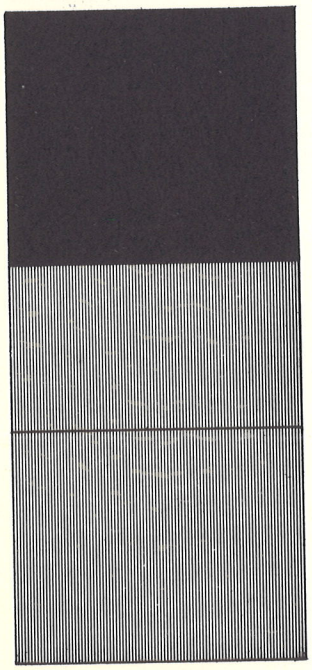
Another 550 square miles are taken up by parks, institutions with large sites, airports and other uses having large amounts of land and relatively small amounts of building.

The remaining 1,000 square miles are not likely to be developed except for park lands because of swamps, excessive slopes, lakes or reservoirs.

TABLE 2 POPULATION AND INTENSIVELY DEVELOPED LAND 1820 TO 1975

	Population	Intensively Developed Land Square Miles	Population Per Square Mile	Households Per Square Mile
1820	497,000	10	50,000	
1860	1,932,000	30	64,000	
1900	5,514,000	140	39,000	46,700
1940	12,518,000	640	20,000	66,000
1954	15,000,000	1100	14,000	62,000
1975	19,100,000	1800	11,000	65,600

Table 2 shows the long-term trend for people in the region to demand increasing amounts of land per dwelling unit. In 1860 each square mile of developed land held about 65,000 people. Today there are only about 15,00 persons per square mile. By 1975, we expect an average of only 11,000 per square mile.



INTENSIVELY DEVELOPED AREA
(at same scale as map 7 adjacent)

Chart 18 Between 1955 and 1975 the region's added population probably will cause a spreading out of development into an added 700 square miles. Hence, the region's underdeveloped and vacant land will come under intensive development pressures. This vast new urbanized area anticipated in the brief span of 20 years will be equivalent to two-thirds of all present development, the summation of 300 years of growth since the earliest Dutch settlements.

The Region's Total Population

Population grows because of two factors: *natural increase* and *net in-migration*. Natural increase occurs in an area when more people are born there than die. Net in-migration occurs when more people move into an area than leave it. The actual number of persons who move to an area may be much greater, of course, than the gain or *net* in-migration if many other persons are moving away at the same time.

NATURAL INCREASE

The growth potentials of the New Jersey-New York-Connecticut Metropolitan Region are impressive. If natural increase were to continue at the 1950 rate, the population would grow by almost 1½ million persons each decade even if no additional families moved to the region. Thus, from the estimated population base of 15.2 million in 1955, natural increase alone could result in a total of 18.2 million by 1975.

Birth Rates

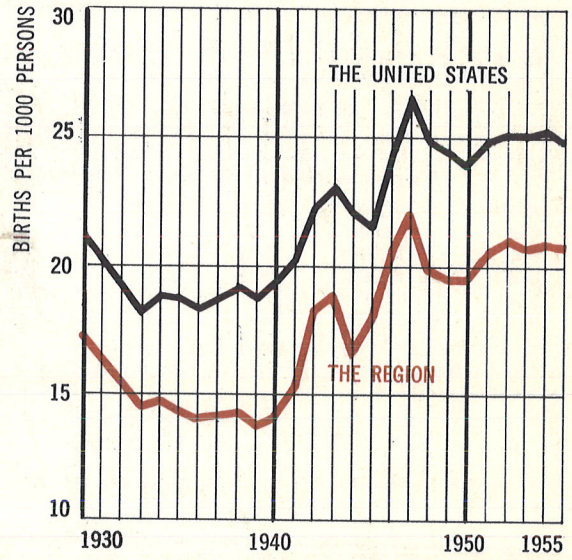
Estimates of future birth rates by the United States Bureau of the Census provide the best starting point for forecasting birth rates in the metropolitan region. Birth rates for the region as a whole as for the nation reached an historic low during the 1930's. In this decade the region's *crude* birth rate was about 13.5 births per 1,000 population (Table 3, page 16). (The crude birth rate is the number of births per thousand persons in the population irrespective of age, sex, race or other special population characteristics.) Again paralleling national trends, the regional birth rate climbed after World War II and reached an estimated peak of 22.0 in 1947. Since then it has fluctuated on a high plateau, averaging 20.5 per 1,000 population.

TABLE 3 CRUDE BIRTH RATES (BIRTHS PER 1000 PERSONS), UNITED STATES AND THE REGION AND RATIOS OF REGIONAL TO U.S. BIRTH RATES: 1920 TO 1955.

	U.S.	Region	Ratio
1920	27.7	23.7	85.6
1930	21.3	17.2	80.8
1931	20.3	16.2	79.9
1932	19.4	15.3	79.0
1933	18.3	14.3	78.1
1934	18.9	14.5	77.2
1935	18.7	14.2	76.2
1936	18.4	13.8	75.3
1937	19.2	14.1	7.35
1938	18.7	13.9	74.4
1939	18.8	13.6	72.6
1940	19.4	13.9	71.6
1941	20.3	15.1	74.4
1942	22.3	18.1	81.2
1943	23.1	18.7	81.0
1944	22.1	17.4	78.7
1945	21.6	17.9	82.9
1946	24.4	20.4	83.6
1947	26.6	22.0	82.7
1948	24.9	19.7	79.1
1949	24.5	19.3	78.8
1950	24.0	19.3	80.4
1951	24.9	20.3	81.5
1952	25.1	20.8	82.9
1953	25.1	20.5	81.7
1954	25.3	20.6	81.4
1955	24.9	20.6	82.7

SOURCE: RPA and U.S. Census

CHART 19 BIRTH RATES UNITED STATES AND THE REGION 1930 TO 1955



SOURCE: RPA AND US CENSUS

Although regional birth rates have followed the national pattern of rise and fall, the actual levels differ. Comparative data have been available since 1920. These indicate a crude birth rate for the region consistently lower than the average rate prevailing throughout the United States. As Table 3 shows, the gap between the rates for the region and for the nation for the censal years since 1920 first widened and subsequently narrowed. It is unlikely that the low regional birth rate of 1940 and the consequent low region-to-nation birth rate ratio will occur again. Rather, most factors indicate an upward movement of this ratio, returning to a level ranging between 80.0 and 85.0 percent of the national rate. With the nation more and more reflecting the character of the urban areas which have come to dominate it, the ratio in future years may become even higher than we now expect. The crude birth rate ratios of region-to-nation assumed for this forecast are as follows for each five-year period:

1955 - 1959	81.0	1965 - 1969	82.0
1960 - 1964	81.5	1970 - 1974	82.5

When these region-to-nation birth rate ratios are applied to the alternative national birth rates projected by the United States Bureau of the Census, several sets of

regional figures result. These vary according to a number of differing fertility assumptions. (Fertility is expressed by the number of children born in the year to each thousand women in the child-bearing years.) The estimated regional birth rates under four different fertility assumptions are presented in Table 4, page 17, where the assumptions are also described.

The decline in the expected birth rate in the 1960-1964 period reflects the decline in the number of females born during the depression. The upturn after 1965 reflects the large number of females born following World War II.

TABLE 4 FORECAST OF CRUDE BIRTH RATES: UNITED STATES AND THE REGION UNDER FOUR FERTILITY ASSUMPTIONS*, 1955 TO 1975

(Average Annual Rate per 1000)

	1955-59		1960-64	
	U.S.	REGION	U.S.	REGION
AA	24.0	19.4	23.3	19.0
A	22.3	18.1	21.8	17.8
B	22.3	18.1	21.8	17.8
C	20.7	16.8	19.2	15.6

	1965-69		1970-74	
	U.S.	REGION	U.S.	REGION
AA	24.2	19.8	25.7	21.2
A	23.0	18.9	24.3	20.0
B	21.4	17.5	19.7	16.2
C	19.2	15.7	19.3	15.9

*Series AA – assumes that 1954-1955 fertility rates will remain constant through 1975.

Series A – assumes that 1950-1953 fertility rates will remain constant through 1975.

Series B – assumes that 1950-1953 rates will continue to 1965 then drop gradually to the 1940 levels by 1975.

Series C – assumes that 1950-1953 rates will decline continuously to the 1940 levels by 1975.

SOURCE: RPA and U.S. Census

Death Rates

Death rates change much more gradually and more consistently than do birth rates. A comparison of past death rates in the region and the nation shows a close relationship in the changes (Table 5, page 17 and Chart 20, page 17). The region's *crude death rate* (deaths per 1,000 population) declined from 13.1 in 1920 to 9.5 in 1950. The latter was close to the national crude death rate of 9.6.

Because the figures so nearly coincide, the average national crude death rates projected by the United States Bureau of the Census have been assumed to apply to the region. For each five-year portion of the forecast period these are as follows:

1955 - 1959	9.22	1965 - 1969	9.68
1960 - 1964	9.61	1970 - 1974	9.65

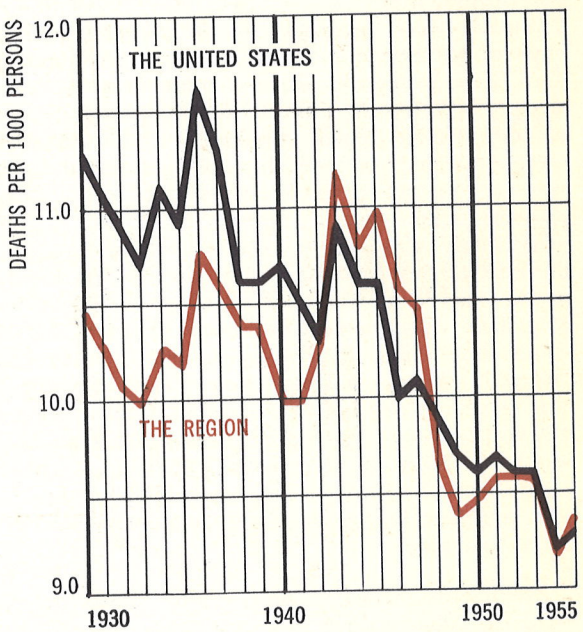
Thus, it is expected that approximately the current levels will persist in the next several decades. Medical and public health progress probably will reduce the death rates among the many age-groups in the population. But this gain probably will be offset by the steadily increasing proportion of elderly persons in the population, who tend to have higher death rates.

TABLE 5 DEATH RATES: UNITED STATES AND THE NEW YORK REGION 1920, 1930, 1940-55

	U.S.	Region	Ratio
1920	13.0	13.1	100.8
1930	11.3	10.5	92.9
1931	11.1	10.3	93.0
1932	10.9	10.1	93.0
1933	10.7	10.0	93.1
1934	11.1	10.3	93.1
1935	10.9	10.2	93.2
1936	11.6	10.8	93.3
1937	11.3	10.6	93.3
1938	10.6	9.9	93.4
1939	10.6	9.9	93.1
1940	10.7	10.0	93.5
1941	10.5	10.0	95.2
1942	10.3	10.3	100.0
1943	10.9	11.2	102.8
1944	10.6	10.8	101.9
1945	10.6	11.0	103.8
1946	10.0	10.1	101.0
1947	10.1	10.0	99.0
1948	9.9	9.7	98.0
1949	9.7	9.4	96.9
1950	9.6	9.5	99.0
1951	9.7	9.6	99.0
1952	9.6	9.6	100.0
1953	9.6	9.6	100.0
1954	9.2	9.2	100.0
1955	9.3	9.4	101.1

Source: RPA and US Census

CHART 20 DEATH RATES UNITED STATES AND THE REGION 1930 TO 1955



SOURCE: RPA AND US CENSUS

NET MIGRATION

Of the two growth factors, natural increase and migration, the latter can vary much more widely and therefore may have a controlling influence on variations in population trends. Just what the migration movements have been and will be is exceedingly difficult, however, to establish. No tabulation is made regularly of the numbers of people moving to or from geographical areas within the United States.

Only the net effect of internal migration can be computed. This rough measure is achieved by comparing census figures of one decade with those of a previous decade. For example, if the total population of an area in 1950 exceeded the 1940 figure even after births in the 10-year period have been added and deaths subtracted, the excess beyond the natural increase is attributed to *net in-migration*. This represents the difference between the number of persons moving into an area and the number leaving it. Even the net figure, however, is very helpful. An analysis of net migration movements for the region during the last 35 years provides important indications of the range within which future migration levels are likely to fall.

Net migration in the New Jersey-New York-Connecticut Metropolitan Region has consistently been inward (Chart 3 page 5). That is, more people have come here in each decade than moved out. From 1920 to 1930 net in-migration totalled approximately 1½ million persons. This volume was unequalled in any subsequent decade. In large part it was due to substantial immigration from Europe. Other factors contributing to the high levels of in-migration were the attraction of urban centers to the rural populace and the national prosperity of the Twenties.

In the depression decade, 1930-1940, the volume of net in-migration to the region dropped sharply to about 400,000. The New York region as well as other metropolitan areas with widespread unemployment became less attractive to potential in-migrants. Furthermore, due to the enactment of federal immigration legislation in the Twenties, which drastically restricted immigration on the basis of national quotas, the levels of immigration into the United States and hence of migration into the region sharply declined. As a result of these factors the percent of total United States population to be found in the areas designated as "urban areas" remained stable between 1930 and 1940. From 1940 to 1950, migration into the region once again registered a net gain of approximately 400,000. It is most likely, however, that the bulk of this movement took place in the second half of the decade after the termination of World War II. Migration appears to have been impeded during the actual war years. If the assumption is made that the "normal" pressure was expressed after 1946, the post-war gain would correspond to a decade rate of approximately 600,000 to 800,000 persons. On the other hand, the post-war surge might be interpreted merely as a delayed reaction, a catching up of what would have been no more in total numbers, but would have been spread over 10 years of normal times.

Preliminary estimates for the most recent half-decade, 1950-55, indicate a net in-migration of 500,000 persons. If this rate of in-migration were to be sustained during the remainder of the current decade, it would result in the largest net in-migration volume for any decade since the 1920-1930 period. Of the ½ million gain since 1950, about 50,000 were Negroes, 180,000 were Puerto Ricans (mostly white) and the great majority, 270,000, were other white persons coming to the region.

It is evident from this historical review that the future level of migration cannot be projected reliably merely from past migration patterns. Movements of population will be dependent on economic, social and political conditions in the nation, in its various regions and in places abroad, as well as on personal preferences for urban, suburban or rural living. Movements into the New York metropolitan region will be dependent on industrial growth, on continued migration from the southern states and from territorial areas such as Puerto Rico, and on the comparative competitive attraction of other metropolitan areas, particularly in the west and southwest.

Rather than choose a single migration projection at the outset, we have tested the effects of four different migration assumptions. All four have been used to obtain a range of possible future population levels (Table 6 page 18). The maximum assumption (I) is a net in-migration average of 100,000 persons per annum over the next twenty-year period. This corresponds approximately to the 1945-1955 rate. The minimum assumption (IV) is a net in-migration average level of 35,000 per annum, a level slightly below those of the 1930-1940 and 1940-1950 decades. Within these extremes are two intermediate assumptions: (III) 50,000 and (II) 75,000 average annual net in-migrants.

TABLE 6 FORECAST OF REGIONAL NET IN-MIGRATION UNDER RANGE OF MIGRATION ASSUMPTIONS 1955 TO 1975 (Annual Average For Each Five-Year Period And For The Twenty-Year Period)

(In thousands)

	1955-59	1960-64	1965-69	1970-74	1955-75
I	112	108	98	82	100
II	102	78	62	58	75
III	94	56	32	18	50
IV	94	56	12	– 22	35

Source: RPA

It should be emphasized that these volumes are *net* movements. It is unlikely that all the component race or age groups will have a continual net in-migration. On the contrary, as will be spelled out in detail below, under the minimum average annual net in-migration assumption of 35,000, the white population might have an average net out-migration of 40,000 persons annually in the last five years of the twenty-year forecast period, offset by an in-migration of about 5,000 Negroes and 15,000 Puerto Ricans each year.

The influence of the people who migrate to the region on its population growth depends on their particular sex, age and ethnic characteristics. The assumptions regarding these characteristics used in our projections are based on an analysis of the migration experience of the region during the past two decades. Together with the population characteristics of people now in the region, these assumptions provide the basis for our forecasts.

Sex

One of the most significant aspects of the distribution of the metropolitan population among the sexes is the larger number of females within the region. A major reason for this imbalance is the fact that on a net basis more women have been migrating to the region than men in recent years (Table 7 page 19). Prior to 1920 the region had a special attraction to male immigrants in search of new opportunities. As late as the 1920-30 decade, a slightly greater net number of males than females entered the region. But from 1930 to 1940, in net terms, 1.8 females entered the region for every male; and in the 1940-50 decade the ratio probably was as high as 2.7 females to each incoming male.

The rising proportion of females in the population of the region results also from their longer life expectancy. Recent United States life tables show that at birth the average female may be expected to live for 71 years while the average male may be expected to live only 65 years. As a basis for our population forecasts, it has been assumed that both migration and life expectancy patterns will continue to favor female increases in the region. Accordingly, we have projected continued increases in the number of females per male throughout the forecast years.

Age

During the 1940-50 decade three major changes occurred in the age characteristics of the region's population (Table 8 page 19):

(1) The 0-5 age-group increased by about ½ million. This resulted from the high post-war birth rates.

(2) The age groups above 50 years of age increased by a total of almost a million.

(3) The 10-24 age-groups declined in size. This resulted from the low birth rate in the depression years.

Although the net increase in the childhood age groups was impressive between 1940 and 1950, it is significant to note that the region's gain was smaller than the actual number of babies born here. Indeed, there was a net out-migration of young children despite their absolute gain in the region. According to reported data on births and deaths in the period 1940-50, the 0-10 age-group in the region in 1950 should have reached a total of 2,365,000. Instead, the census count was only 2,315,000. This indicates a net out-migration of about 50,000 young children.

The statistics for youths in the age-groups over 10, however, suggest a net movement *into* the region of families with older children. This trend tends to offset the exodus of families with children under ten. Both the 1950 age-group, 10-14 (children who were under 5 years old in 1940) and the 1950 age-group, 15-19 (those who were 5 to 9 in 1940) show a net migration into the region during the decade.

It is probable that many of the older persons in the 15-19 age-group were not attached to families migrating to the region. Rather some may have been single individuals, predominantly females, 18 or 19 years of age seeking cultural and economic betterment on their own.

In the period 1940-50 there also was a substantial migration into the region of persons in the 20-45 age bracket. This migration is especially significant since it added to the regional labor force. In this in-migration of persons between 20 and 45, females were predominant by a ratio of more than 2 females to 1 male. Although there are no direct statistics on the matter, it probably includes a considerable movement to the region of single persons.

It appears from the census data that between 1940 and 1950 there was a net out-migration of individuals in the oldest age-groups. This is illustrated in the chart on page 8. Care must be exercised however, in the use of population figures reporting persons in the older age-groups. They tend to overstate their age. For the nation as a whole, the Census Bureau reports that there "appears to be a deficit of persons of the age range 55 to 64 years which is roughly offset by an excess over the number expected in the age group 65 years old and over." In the New York metropolitan region there also appears to be a deficit in the reported age group 55-64. The 1950 regional figures for the older age-groups are not large enough, however, to balance this discrepancy. It is likely, therefore, that the region did experience some out-migration among the age-groups over 55 during the ten-year period.

Notwithstanding these losses through the outward migration of the oldest age-groups, the distribution of the region's population shifted toward the older end of the scale during the 1940-1950 decade. In view of the enormous number of births in the 1940's and the sizable in-migration in the 20-40 age bracket, this definite trend toward a more aged population is most remarkable. It suggests that even if the high birth rates of recent years are maintained through 1975, the long-term trend toward an older population which has been in evidence for a number of decades is likely to continue.

TABLE 7 REGIONAL NET IN-MIGRATION BY SEX BY DECADE; ABSOLUTES, PERCENTAGES, AND MALE/FEMALE RATIO 1920 TO 1950

DECADE	MALE	% OF TOTAL	FEMALE	% OF TOTAL	TOTAL	RATIO F:M
1920-1929	832,000	51.8	775,000	48.2	1,607,000	0.9:1.0
1930-1939	141,000	35.8	252,000	64.2	393,000	1.8:1.0
1940-1949	105,000	27.0	283,000	73.0	388,000	2.7:1.0

Source: RPA and US Census

TABLE 8 CHANGE IN REGION'S POPULATION COMPOSITION BY SEX AND AGE: ABSOLUTES AND PERCENTS 1940 TO 1950

AGE	MALE		FEMALE		TOTAL	
	Absolute	Percent	Absolute	Percent	Absolute	Percent
0— 4	256,000	62	247,000	63	503,000	63
5— 9	99,000	24	92,000	23	191,000	23
10—14	– 81,000	– 16	– 84,000	– 17	– 165,000	– 17
15—24	– 169,000	– 16	– 134,000	– 12	– 303,000	– 14
25—34	21,000	2	46,000	4	67,000	3
35—44	44,000	4	130,000	12	174,000	8
45—54	91,000	10	159,000	19	250,000	15
55—64	180,000	34	189,000	36	269,000	35
65 +	154,000	45	190,000	46	343,000	46
Total	593,000	10	836,000	13	1,430,000	11

Source: US Census

Data for the previous decade, 1930-1940, is not complete enough to give as accurate a picture of migration as the foregoing description of the 1940-50 trends. Only the probable direction and rough magnitude of 1930-40 net migration can be estimated (Chart 7 page 7). What evidence there is, however, suggests that the pattern was quite similar to what occurred in the 1940-1950 decade.

Male and female age-groups under 10 and over 45 evidenced a net out-migration during both periods. There was a moderate net out-migration also among males in the 14 to 25 age-groups in the 1940-50 period. In both decades and for both sexes in the age-groups between 25 and 45, there was a net in-migration. This underscores the pull of the New York metropolitan region for persons of working age in the prime of life.

It should be noted carefully that the net movements which we have estimated for each age-group are for total males or total females. These totals comprise all ethnic groups. The pattern of net migration for any of the component groups in some instances may be opposite, of course, to the total pattern. For example, in certain age-groups white males may have a net outward movement and at the same time non-white males may be experiencing a net in-migration. Some of these differences are discussed in detail below.

Looking toward the next 20-year period, we see no reason to expect radical variations from past trends in the migration patterns of the various age-groups. The overall net in-migration which we foresee will be due principally to continued migration into the region of the age-groups, 25 to 45. These are either single men and women seeking the unique and varied opportunities offered by this region or married couples who prefer urban (or suburban) life in the big metropolis to the smaller town or farm. Conversely, persons in the older age-groups who seek milder climates or a slower pace of life are expected to have a net movement away from the region.

Ethnic Patterns

One of the most striking changes in the composition of the region's population has been the growing proportion of non-whites. In 1930 there were about ½ million non-whites in the region, or 4.6 percent of the total population. Between 1930 and 1950 the non-white group doubled to 1 million, and its proportion of the total population increased to 7.8 percent.

The "non-white" category according to the Bureau of the Census definition, consists of Negroes, Indians, Japanese, Chinese, and other non-white ethnic groups.

From 1940 to 1950 the region's non-white population increased by 400,000. The white group, including Puerto Rican whites, increased by about 1 million persons in the same period, mostly due to the high level of natural increase within the region. But the *rate* of white increase was only 8.8 percent compared to the non-white growth rate of 56 percent. Migration patterns were very different, however, as between the two population groups (Table 9 page 20). In the 1940-50 decade the net in-migration of non-whites to the New York metropolitan region was more than three times as great as the net in-migration of all whites including those from Puerto Rico.

In absolute numbers and in net terms, between 1940 and 1950 some 300,000 non-whites migrated to the region. At the same time there was a net gain of 135,000 white Puerto Ricans. But there was a net out-migration of 35,000 other white persons.

Thus, net in-migration accounted for three-fourths of the increase in the non-white population but only one-tenth of the white increase. Stated differently and in approximate terms, for every nine non-white babies born here, more than 27 non-white persons moved into the region; for ever nine white births, only one white person migrated to the region.

White and non-white in-migrants contrasted also in respect to sex distribution. For the non-white segment, there were about 76 males to every 100 females migrating to the region between 1940 and 1950. But in the same period there was an actual net *out*-migration of white males along with a net *in*-migration of white females.

Every non-white age-group for both males and females was enlarged by in-migration in the 10-year period. On the other hand, the region experienced a net loss in the over-45 group of both white males and females. This outward movement of the older females was more than offset by a larger net in-migration in the female 10-40 age group. For the white males, however, the losses in the older age-groups along with net losses in the 15-24 age-groups were too large to be offset by the relatively small net in-migration of the 10-14 and 25-44 age groups.

Since 1930 the place of origin of the region's in-migrants has been shifting. With European immigration greatly curtailed, there have been increasing numbers of Negroes from the South and migrants from Puerto Rico. In this period, the net movement of whites (exclusive of Puerto Ricans) has fluctuated widely. There was a net white in-migration of 255,000 persons during the 1930-40 period; a net out-migration of 35,000 white persons during 1940-50; and an estimated net white in-migration of 270,000 for the half decade 1950-55.

Future Migration Patterns

For forecasting purposes, as was stated above, we have assumed that the average annual rate of net in-migration during the next 20 years will fall within the range of 35,000 to 100,000. These limits were not determined

TABLE 9 REGIONAL NET IN-MIGRATION BY ETHNIC GROUP, BY DECADE 1930 TO 1960

DECADE	TOTAL	TOTAL WHITE	WHITE NON-PUERTO RICAN	WHITE PUERTO RICAN	TOTAL NON-WHITE
1930-39	400,000	255,000	255,000	0	145,000
1940-49	400,000	100,000	– 35,000	135,000	300,000
1950-59*	1,000,000	900,000	540,000	360,000	100,000

*Decade total based on 1950-54 estimates.

Source: RPA and US Census

arbitrarily. They are the sum of separate estimates of several independent sets of movements into or out of the region. These involve three chief ethnic components: white, non-white and Puerto Rican. Not enough is known about future migration factors to enable more than informed guesses in light of certain plausible trend considerations.

We have assumed, for example, that Puerto Rican migration probably will continue throughout the forecast period as a major net in-migration despite some anticipated rise in the island's standard of living. A substantial number of these should be attracted to the New York metropolitan region both because of the existing large Puerto Rican population in the central city and its growing dispersal into the regional environs outside Manhattan Island.

On the other hand, the movements of white persons from other parts of the United States as well as of Negroes from the South conceivably might decline to insignificant numbers or even reverse past trends. With the increasing industrialization of the South, a rise in pay scales accompanying a growth in labor unions might influence a great many white persons as well as southern Negroes to remain in the South who under the conditions prevailing heretofore might have moved north. In addition, the fast-growing Negro populations in the nation's other metropolitan areas may attract an increasing proportion of those Negroes who leave the South and otherwise might have migrated to the New York region.

Outstanding job opportunities and cultural advantages probably will continue to attract many white migrants from places throughout the nation and indeed the world. As was noted above, net in-migration for whites between 1940 and 1950 added approximately one million persons to the region. Some degree of decline in total net white in-migration appears most likely, however. As the postwar generation reaches working age, the need to draw from outside to fill the region's jobs may lessen. It is even conceivable that the region might experience a net out-migration of whites during the next twenty years.

Continued migration to the region from Puerto Rico, the southern states and elsewhere probably will be dependent primarily on regional job opportunities. At the same time, the relative economic expansion of other rapidly growing metropolitan areas, particularly in the west and southeast, will also affect the number of migrants attracted to the New York metropolitan region.

It has not been possible within the scope of this study to make actual estimates of these crucial economic determinants of national and regional population flows. As was explained in the Introduction, however, the essential basic economic and demographic studies are now being carried forward for the Regional Plan Association by the New York Metropolitan Region Study. When the additional findings become available sometime in the year 1959, further and more refined population and employment projections will be made based on the indications of the new studies.

REGIONAL POPULATION FORECASTS

As was stated earlier, we have determined a range within which future migration levels are most likely to occur by analyzing past migration trends. We also have examined some of the variable factors which will determine the migration levels in the next 20 years. Depending on how future events develop, the upper or lower end of the range will turn out to be the more correct.

Future migration levels will depend in good part on future fertility rates. If the fertility rate approximates the medium-high or 'B" series (see Table 4 page 17), average annual net in-migration for the three major groups may be about as follows. Negroes: somewhere between 10,000 and 20,000 persons per annum; Puerto Ricans: 25,000 to 30,000; other whites: 15,000 to 30,000.

To produce our forecasts, we have carried out mathematical calculations for all combinations of the several migration, birth and death rate assumptions referred to above. These yield a projected population for the region in 1975 within a range of 18.1 to 20.9 million persons. After a further analysis of the population-supporting potential of the region's land areas, industrial economy, water resources and other factors we have judged that the region's likely population range will be between 18.6 and 19.6 million persons in 1975. The midpoint of this range, *19.1 million* has been selected as the most probable 1975 population level.

Projections of most probable total regional population by 5-year intervals give the following range:

TABLE 10 FORECAST OF REGION'S POPULATION. RANGE AND MIDPOINT 1960 TO 1975

(In Millions)

	Minimum	Midpoint	Maximum
1960	16.3	16.4	16.5
1965	17.3	17.4	17.5
1970	18.0	18.3	18.5
1975	18.6	19.1	19.6

Source: RPA

The mid-point forecasts in these projections are very close to earlier preliminary forecasts which were contained in Regional Plan Association *Bulletin #85*, published in November 1954. The former regional estimate for 1975 was 19.2 million persons. It was derived in less reliable fashion, however, by means of short-cut ratio relationships to national projections prepared by the United States Bureau of the Census.

While the regional totals coincide as between the two sets of forecasts, there are some considerable differences as to the distribution of total population among the 22 component counties of the metropolitan region. These differences result largely from improved data gathered for the Metropolitan Rapid Transit Survey—especially from new studies of land use and land availability which yielded information about the ultimate population absorption capacities of the various sections of the region. A subsequent section discusses fully the distribution of the regional population among the counties.

COMPARISON WITH NATIONAL TRENDS

The New Jersey-New York-Connecticut Metropolitan Region has contained a sizeable share of the nation's people and economic activity from earliest days. Whether measured in terms of population, goods processed, buying power or shipping volume, the region's position in the nation has been impressive.

During the one-hundred year span from 1840 to 1940, the percentage of the national population living in the

22-county metropolitan region rose from 4.9 percent to 9.5 percent (Table 11, page 22) , increasing in every decade except the 1870's. Since 1940, however, there has been a small decline, the 1955 figure being about 9.3 percent (Chart 1, page 4).

TABLE 11 REGION'S POPULATION AS PERCENT OF UNITED STATES POPULATION 1790 TO 1955

1790	7.26	1880	6.27
1800	6.72	1890	6.49
1810	5.94	1900	7.26
1820	5.15	1910	8.27
1830	4.90	1920	8.64
1840	4.91	1930	9.48
1850	5.39	1940	9.51
1860	6.14	1950	9.26
1870	6.45	1955	9.31

Source: RPA and US Census

Latest revised projections of the population of the United States made by the U.S. Bureau of the Census range from 206.9 millions to 228.5 million in 1975. This range is based on various fertility assumptions. Our present forecasts of regional population are based, however, on migration assumptions as well as fertility assumptions. For this reason, a comparison of our new regional population projections with the national projections gives different ratio figures depending on which regional *migration* rate is assumed.

The 1975 estimate of 19.1 millions for the region falls within a range of 8.9 percent of the estimated 1975 United States population under the medium-high (B) fertility assumption and 9.2 percent under the medium-low (C) fertility assumption (Table 12 page 22). In either case, it does not appear likely that this region will again increase in population quite as fast as the nation as a whole. In short, a one-hundred year old trend probably has been arrested.

As a further means for checking the reasonableness of the regional population forecasts against long-term trends in the nation, we have carried out a series of computations involving various base years and various breakdowns of national population.

Three sets of base years were used: (1) 1900 to 1950, (2) 1930 to 1950, and (3) the average of these two sets. The latter set probably is the more reasonable guide to the next 20-year period because it takes account both of long-run relationships and of recent shifts in these relationships.

In these computations we have compared the growth of the New Jersey-New York-Connecticut Metropolitan Region with the growth of four kinds of geographical area: (1) the nation as a whole; (2) the nation's "urban" population; (3) the combined population of 162 "standard metropolitan areas"; and (4) the combined population of the 52 older "standard metropolitan areas" for which data exist since 1900.

Table 13 page 22 shows the computed figures as to what the New York metropolitan region's population would be in the year 1975 in light of the projected growth of total population in each of the four "area" categories if past ratio relationships were to continue into the future. Alternative figures are given for both high and low birth rate assumption extremes.

It appears again from this table that the forecast figure for the New York region, 19.1 million, actually would reflect an adverse turn in the long-run ratio relationship of the region to the other geographical areas under all but one fertility assumption: namely, that the national fertility trend might follow the lowest curve among the several alternatives now anticipated by the U.S. Census Bureau.

TABLE 13 PROJECTIONS OF THE REGION'S 1975 POPULATION DERIVED FROM ALTERNATIVE NATIONAL POPULATION PROJECTIONS BY WAY OF TRENDS IN THE RATIOS* OF THE REGION TO SELECTED SUB-AREAS OF THE UNITED STATES

(In Millions)

Trend Based on	Ratio 1		Ratio 2		Ratio 3		Ratio 4	
	AA**	C	AA	C	AA	C	AA	C
1. 1900-1950	24.0	21.7	24.3	22.0	24.7	22.3	24.3	22.0
2. 1930-1950	20.3	18.4	20.3	18.4	20.2	18.3	19.1	17.3
3. Average of 1 & 2	22.2	20.1	22.2	20.1	22.4	20.2	21.6	19.5

*Ratio 1 Region to all United States Urban Population
Ratio 2 Region to 162 Standard Metropolitan Areas (SMA's) of the United States
Ratio 3 Region to 52 Original SMA's
Ratio 4 Region to 52 Original SMA's as related to 162 SMA's

**Fertility Assumptions—see Table 4

Source: RPA and US Census

TABLE 12 FORECASTS OF THE UNITED STATES, AND THE REGION'S POPULATION UNDER VARIOUS FERTILITY AND MIGRATION ASSUMPTIONS; ABSOLUTE and PERCENT OF U.S., 1975

(in millions)

FERTILITY*	UNITED STATES	THE REGION							
		ANNUAL MIGRATION ASSUMPTIONS							
		35,000		50,000		75,000		100,000	
		Absolute	% of U. S.	Absolute	% of U. S.	Absolute	% of U. S.	Absolute	% of U. S.
A A	228.5	19.5	8.5	19.8	8.7	20.4	8.9	20.9	9.2
A	221.5	19.1	8.6	19.4	8.8	19.9	9.0	20.5	9.2
B	214.6	18.6	8.7	18.9	8.8	19.4	9.0	20.0	9.3
C	206.9	18.1	8.7	18.4	8.9	18.9	9.1	19.5	9.4

*See Table 3

Source: RPA and US Census

The Region's Total Labor Force

Before arriving at future employment figures for the region, we must find out first what portion of the projected total regional population will be in the *labor force* –that is, of working age and seeking work. Labor force represents the maximum available pool of manpower.

Under relatively prosperous peacetime conditions, the unemployed and the armed forces represent small proportions of the total labor force. Nearly all the labor force is in the employed category.

Each working person may be counted twice in the census: once in the home (population census), and once at the place of work (employment census). One of the *population* characteristics determined at the home is whether or not each member of the household is in the labor force. The *employed labor force* then, is a function of population. It comprises persons employed (workers) but reported by their *place of residence*. On the other hand; *employment* is a function of industrial activity. It is the number of jobs held by the workers and reported by their *place of employment*. Total *employed labor force* and total *employment* for a large metropolitan region are virtually identical in number. (We have assumed that the number of persons holding two jobs simultaneously is negligible.)

Approximately one percent of the jobs in the New Jersey-New York-Connecticut Metropolitan Region are held by persons from outside the region. They are balanced, however, by regional residents who work in places like Trenton and New Haven. We have assumed, therefore, that the region's total employed labor force is equal to its total employment.

While every person is counted in the population census, the employment census covers only a portion of the workers. In the set of employment estimates presented in this bulletin, therefore, we have arrived at our estimates of the region's total employment by way of census counts of the total employed labor force.

To forecast employment, we need to judge what portion of the *future* population will be in the labor force. This will depend on the sex composition of the future population and on the labor force *participation rates* by sex (i.e. the proportion of those who hold jobs to the total population of each sex). These are discussed successively below.

SEX COMPOSITION OF THE REGIONAL POPULATION

Of particular importance in determining the size of the future labor force will be sex composition of the population. This factor will be affected greatly by the volume and pattern of future migration. A particularly significant characteristic of the sex composition of the metropolitan population is the large number of females (Table 14 page 23). In the New Jersey-New York-Connecticut Metropolitan Region there were 94.7 males to every 100 females in 1950. The male component had declined almost 6 percent since 1930. The major reason for this growing imbalance between the sexes is the fact that more women have been migrating to the region than men (see page 19).

TABLE 14 MALES PER 100 FEMALES, UNITED STATES AND THE REGION 1920 TO 1950

	U. S.	REGION
1920	104.0	99.9
1930	102.5	100.4
1940	100.7	97.9
1950	98.6	94.7

Source: US Census

This preponderance of females in the region is expected to continue and even to increase during the forecast period. Throughout the United States, a continued decline is expected during the next two decades in the number of males per 100 females. In addition to reflecting this overall national trend, our region, an urban center with special job career and marriage opportunities for women, probably will have an above-average attraction of females.

For the purpose of estimating the sex ratio of the future regional population, several approaches were considered:

(a) Extrapolating (projecting known trend data into the future) past regional male-to-female ratios through the forecast period. If this procedure were adopted, the 1930-50 rate of influx of females would be assumed to continue. By 1975 there would be only 87.6 males to every 100 females in the region.

(b) Extrapolating the region-to-nation ratios of sex composition from the 1920 to 1950 data. This also would yield a continued unbalanced influx of females over males into the region, although at a declining rate. By 1975 the region would have approximately 91 males per 100 females.

(c) Projecting a regional decline in males per 100 females in direct ratio with the U.S. decline as estimated by the Bureau of the Census. This would assume a continuation of the present region-to-nation relationship and would not take into account the historic special influx of females into the region. This approach would result in 92.7 males in the region for every 100 females in 1975.

(d) Projecting the ratio on the assumption that the male-to-female ratio will reverse its trend and increase in the region, gradually approaching the projected national male-to-female ratio for 1975.

Approach "b" has been adopted as the most satisfactory method. It was recognized, however, that the future ratio will depend also on the *magnitude* of net in-migration. Accordingly, a range of 1975 male-to-female ratios was deemed most advisable. This range is from 87.0 under the highest projected migration volume to 92.2 under the lowest (Table 15 page 24). These sex ratios were applied to total population figures obtained under each respective migration assumption. As a matter of interest, this is the equivalent of adopting method "a" for the maximum migration assumption and method "c" for the minimum migration assumption.

Assuming a 19.1 million total 1975 population, then, the male population is expected to increase from 7.4

in 1955 to 9.0 million in 1975 or 22 percent. The female population is expected to increase from 7.8 to 10.1 million or 30 percent.

TABLE 15 FORECAST OF MALES PER 100 FEMALES IN THE REGION UNDER FOUR MIGRATION ASSUMPTIONS 1960 TO 1975

AVERAGE ANNUAL NET IN-MIGRATION	1960	1965	1970	1975
35,000	93.5	93.0	92.5	92.2
50,000	93.1	92.2	91.4	90.9
75,000	92.5	91.1	89.8	89.0
100,000	91.8	89.8	88.1	87.0

Source: RPA

PROPORTION OF REGIONAL POPULATION SEEKING WORK

A second key factor determining the size of the future labor force is the labor force *participation rate*. Participation rates express the number of persons of each sex or other population category who actually seek work per hundred persons in the category.

Let us examine past participation rates first. Total labor force in the region increased from 5.3 million in 1930 to 6.1 million in 1950. Despite this 800,000 person increase, approximately 15 percent of the 1930 labor force, the regional participation rate declined from 45.8 percent in 1930 to 43.7 percent in 1950 (Table 16 page 24). For, while the labor force was growing by 15 percent between 1930 and 1950, the population was increasing by 21 percent or from 11.6 million to 14.0 million.

TABLE 16 PARTICIPATION RATES* BY SEX, UNITED STATES AND THE REGION; AND RATIOS OF REGIONAL TO U. S. PARTICIPATION RATES 1930 TO 1950

MALE	U.S.	REGION	RATIO
1930	60.4	67.4	111.6
1940	61.9	64.5	104.2
1950	60.9	61.8	101.5
FEMALES			
1930	18.2	24.2	133.0
1940	21.2	26.5	125.0
1950	23.9	26.5	110.9
TOTAL			
1930	39.6	45.8	115.7
1940	41.6	45.3	108.9
1950	42.2	43.7	103.6

*Participation rates express the number of persons who seek work per hundred persons.

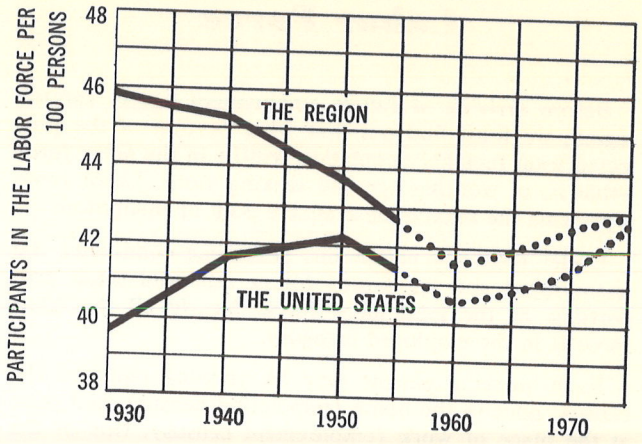
Source: US Census

The decline in the total regional participation rate has reflected mainly an important decline in the male participation rate. This fell from 67.4 in 1930 to 61.8 in 1950. The female participation rate, although increasing during the period, remains at a level too low to offset the male participation rate decline.

Male and female participation rates, although moving since 1930 in opposite directions, both have shifted toward closer conformity with the average national level (Chart 21 page 24). This may be a reflection of the increasing influence of urban areas on average national figures.

Future participation rates by sex (Table 17 page 24) have been estimated under the following assumptions.

CHART 21 PARTICIPATION RATES UNITED STATES AND THE REGION 1930 TO 1955 AND PROJECTION TO 1975



SOURCE: RPA AND US CENSUS

(a) Male: In spite of the decline in this rate since 1930, the region's male participation rate will remain above the national average. The 1950 region-to-nation ratio, therefore, may be assumed as constant throughout the forecast period.

(b) Female: Although the female participation rate will similarly remain higher in the region, the region-to-nation ratio is most likely to continue to decline throughout the forecast period. The gap will probably tend to close as the nation's population becomes increasingly metropolitan in character and more females enter the labor market.

TABLE 17 FORECAST OF PARTICIPATION RATES BY SEX, FOR THE REGION UNDER FOUR FERTILITY ASSUMPTIONS 1960-75

MALE	AA	A	B	C
1960	57.4	58.0	58.0	58.4
1965	56.5	57.4	57.4	58.7
1970	56.0	56.9	57.4	59.8
1975	55.4	56.8	58.7	60.5
FEMALE				
1960	26.1	26.4	26.4	26.5
1965	26.8	27.2	27.2	27.8
1970	27.6	28.2	28.4	29.3
1975	27.8	28.5	29.4	30.1
TOTAL				
1960	41.2	41.5	41.5	41.9
1965	41.1	41.8	41.8	42.7
1970	41.3	42.0	42.4	44.0
1975	41.1	42.0	43.5	44.7

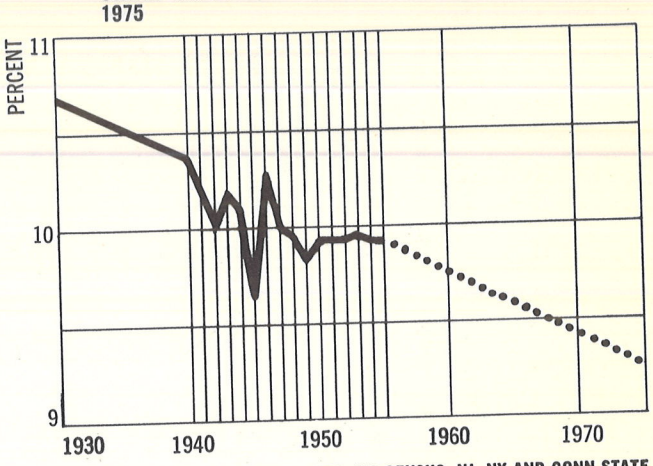
Source: RPA

The future changes in the rates at which males and females of *working age* will participate in the labor force when applied to the expected increases in persons of working age should have the net effect of resulting in an overall expansion of the region's labor force during the forecast period. Of special significance is the growing participation of women. Apparently this reflects both a change in social attitudes and a shift in economic emphasis toward jobs suited to female labor. We estimate that the proportion of females over 14 years of age who will be in the labor force may increase from 33 percent in 1950 to 40 percent in 1975. The proportion of males over 14 years of age who will be available to work is expected to decline from 80 percent in 1950 to 77 percent in 1975. This declining male participation rate reflects both an earlier retirement age and the longer schooling period of males under 25 years of age.

REGIONAL LABOR FORCE FORECASTS

Table 18 on page 25 shows the regional labor force forecasts. For the year 1975, these are based on a population range of 18.6 to 19.6 million persons. The corresponding labor force ranges between 7.8 and 8.6 million potential workers. This would be an increase of 17 to 29 percent over the 1955 regional labor force. Based on our population forecast of 19.1 million persons in 1975, the regional labor force is expected to expand to about 8,200,000 workers, an increase of about 1½ million or 23 percent over the 1955 total of 6,650,000.

CHART 22 THE REGION'S EMPLOYMENT AS A PERCENT OF UNITED STATES EMPLOYMENT 1930 TO 1955 AND PROJECTION TO 1975



SOURCE: RPA; US CENSUS, NJ, NY AND CONN STATE DEPTS OF LABOR

The Region's Total Employment

Actual employment figures tend to be somewhat smaller than labor force estimates. This is so mainly because some persons who otherwise would be in the labor force are in the armed forces or are unemployed at any particular time. To forecast the region's future total employment, therefore, it has been necessary to make certain assumptions with respect to both armed forces and unemployment.

Armed Forces

In April 1950, before the Korean conflict, some 36,000 persons were in the military services stationed in the region. This was about one-half of one percent of the total regional labor force. It is estimated that approximately twice that number generally have been stationed in the region during the post-Korean years. For purposes of the regional employment estimate, it has been assumed that the armed forces in the region will decline to approximately 50,000 in 1975.

Unemployed

The Census in 1950 reported a total of approximately 375,000 in the unemployed category. These persons amounted to 6 percent of the civilian labor force. Since it is not possible to foretell what the future will hold with respect to business cycles, we have assumed that the proportion of unemployed in 1975 will remain stable at approximately 6 percent of the civilian labor force.

REGIONAL EMPLOYMENT FORECAST

Under the above assumptions, regional employment is expected to rise to a 1975 level ranging between 7.3 million and 8.1 million. At a minimum, an increase of 1.1 million jobs is expected. At a maximum, employment might increase by 1.8 million. Based on the population forecast of 19.1 million in 1975, an expansion of the region's employment from the 1955 total of 6.3 million to a 1975 level of 7.7 million is forecast. If this occurs, it will mean an increase of 1.4 million jobs or 23 percent. The annual rate of gain forecast over the 20-year period is about the same as the average annual rate of gain in the past eight years.

COMPARISON WITH NATIONAL TRENDS

In 1955 the region's employment, 6.7 million, was about 9.9 percent of the nation's employment (Chart 22 page 25). The U.S. Bureau of Labor Statistics recently made some studies of long-range prospects for national employment and projected a total U.S. employment in 1975 of 83.2 million. In relation to this estimate, the region's employment will decline as a percent of the nation's from 9.9 percent in 1955 to approximately 9.3 percent in 1975. At the same time, the comparable decline in the region's share of national population might reduce the population ratio from 9.3 percent in 1955 to as little as 8.8 percent or less in 1975.

TABLE 18 FORECAST OF REGION'S POPULATION, LABOR FORCE AND EMPLOYMENT 1975; PERCENT INCREASE 1955 TO 1975
(in millions)

	1955	1975					
		Minimum		Midpoint		Maximum	
		Absolute	% Inc.	Absolute	% Inc.	Absolute	% Inc.
Population	15.2	18.6	22	19.1	26	19.6	29
Labor Force	6.7	7.8	17	8.2	23	8.6	29
Employment	6.3	7.3	17	7.7	23	8.1	29

Source: RPA

TABLE 19 POPULATION IN THE REGION, ABSOLUTE AND PERCENTAGE DISTRIBUTION, BY COUNTY, 1920 THROUGH 1955 AND FORECASTS FOR 1960, 1965, 1970, 1975.

(In Thousands)

	1920		1930		1940		1950		1955		1960		1965		1970		1975	
CONNECTICUT	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION	POPU-LATION	% OF REGION
Fairfield	321	3.5	387	3.3	418	3.3	504	3.6	555	3.6	620	3.8	690	4.0	740	4.1	800	4.2
NEW JERSEY	2349	25.7	3032	26.0	3115	24.9	3581	25.7	4005	26.3	4495	27.4	4955	28.5	5370	29.4	5825	30.5
Bergen	211	2.3	365	3.1	410	3.3	539	3.9	655	4.3	800	4.9	920	5.3	1010	5.5	1100	5.8
Essex	652	7.1	834	7.2	837	6.7	906	6.5	950	6.2	1000	6.1	1050	6.0	1075	5.9	1100	5.8
Hudson	629	6.9	691	5.9	652	5.2	647	4.6	645	4.2	640	3.9	625	3.6	610	3.3	600	3.1
Middlesex	162	1.8	212	1.8	217	1.7	265	1.9	335	2.2	410	2.5	495	2.8	590	3.2	700	3.7
Monmouth	105	1.1	147	1.3	161	1.3	225	1.6	280	1.8	340	2.1	410	2.4	495	2.7	600	3.1
Morris	83	0.9	110	0.9	126	1.0	164	1.2	200	1.3	240	1.5	285	1.6	335	1.8	400	2.1
Passaic	259	2.8	302	2.6	309	2.5	337	2.4	375	2.5	410	2.5	435	2.5	450	2.5	460	2.4
Somerset	48	0.5	65	0.6	74	0.6	99	0.7	115	0.8	135	0.8	165	0.9	195	1.1	225	1.2
Union	200	2.2	305	2.6	328	2.6	398	2.8	450	3.0	520	3.2	570	3.3	610	3.3	640	3.4
NEW YORK	6469	70.8	8225	70.6	8984	71.8	9865	70.7	10665	70.0	11285	68.8	11755	67.5	12140	66.5	12475	65.3
Dutchess	92	1.0	105	0.9	121	1.0	137	1.0	165	1.1	195	1.2	220	1.3	245	1.3	270	1.4
Nassau	126	1.4	303	2.6	407	3.2	673	4.8	975	6.4	1180	7.2	1280	7.4	1355	7.4	1400	7.3
Orange	120	1.3	130	1.1	140	1.1	152	1.1	170	1.1	190	1.2	210	1.2	235	1.3	260	1.4
Putnam	11	0.1	14	0.1	17	0.1	20	0.1	25	0.2	30	0.2	35	0.2	40	0.2	50	0.3
Rockland	46	0.5	60	0.5	74	0.6	89	0.6	100	0.7	135	0.8	175	1.0	215	1.2	250	1.3
Suffolk	110	1.2	161	1.4	197	1.6	276	2.0	445	2.9	585	3.6	695	4.0	775	4.2	845	4.4
Westchester	344	3.8	521	4.5	574	4.6	626	4.5	735	4.8	820	5.0	890	5.1	950	5.2	1000	5.2
N.Y. excl. N.Y.C.	849	9.3	1294	11.1	1529	12.2	1973	14.1	2615	17.2	3135	19.1	3505	20.1	3815	20.9	4075	21.3
Bronx	732	8.0	1265	10.9	1395	11.1	1451	10.4	1490	9.8	1500	9.1	1500	8.6	1500	8.2	1500	7.9
Kings	2018	22.1	2560	22.0	2698	21.6	2738	19.6	2725	17.9	2725	16.6	2725	15.7	2700	14.8	2675	14.0
New York	2284	25.0	1867	16.0	1890	15.1	1960	14.0	1875	12.3	1850	11.3	1850	10.6	1825	10.0	1825	9.6
Queens	469	5.1	1079	9.3	1298	10.4	1551	11.1	1750	11.5	1825	11.1	1850	10.6	1875	10.3	1900	9.9
Richmond	117	1.3	158	1.4	174	1.4	192	1.4	210	1.4	250	1.5	325	1.9	425	2.3	500	2.6
New York City	5620	61.5	6930	59.5	7455	59.6	7892	56.6	8050	52.9	8150	49.7	8250	47.4	8325	45.6	8400	44.0
Environs	3519	38.5	4712	40.5	5063	40.4	6059	43.4	7175	47.1	8250	50.3	9150	52.6	9925	54.4	10700	56.0
Core Counties*	6132	67.1	7463	64.0	7933	63.4	8347	59.8	8485	55.7	8540	52.1	8550	49.1	8510	46.6	8500	44.5
Inner Ring Counties	1909	20.9	2788	24.0	3039	24.3	3671	26.3	4350	28.6	4980	30.4	5470	31.4	5775	32.1	6200	32.5
Outer Ring Counties	1098	11.9	1392	11.9	1546	12.3	1933	13.8	2390	15.7	2880	17.6	3380	19.4	3865	21.2	4400	23.1
REGION	9139	100.0	11643	100.0	12518	100.0	13951	100.0	15225	100.0	16400	100.0	17400	100.0	18250	100.0	19100	100.0

*See Map 8

Note: . Because of rounding, detail may not add to totals
Source: RPA and US Census

DISTRIBUTION OF POPULATION, EMPLOYMENT AND LAND DEVELOPMENT IN THE REGION

Land Development

The region's 22 counties have a total land area of 7,000 square miles. As a result of recent mapping studies, for the first time in a generation we now have maps showing just how all this land is developed. A map in full color entitled *Land Use* has been reproduced and is folded at the back cover. (Unfolded copies suitable for framing may be obtained from the Regional Plan Association.) Areas of residence, employment and recreation are shown in relation to each other and to major transportation facilities. The map gives picture of the patterns in which land has developed and how much of the region's land is now in use.

Table 20 page 31 gives the same information measured in square miles. The measurements presented here were made as part of the New York Metropolitan Region Study already described above and are published by courtesy of the Study. The projections of *future* land requirements contained in this bulletin, however, are Regional Plan Association estimates.

While only 1,100 square miles of the region are intensively developed with homes and centers of employment, a considerable portion of the region's area is taken up by campus-type and low land-coverage institutions such as military installations, cemeteries and outlying hospitals as well as "open" land uses such as parks and golf courses. Of the 5,250 square miles of vacant land remaining in the region, the use of 1,150 square miles is hampered by swamps or excessively steep slopes. This leaves 4,100 square miles in which there are no serious natural obstacles to residential, commercial or industrial development.

While 4,100 square miles seem ample for the region's growth, at least 17 percent of this amount—700 square miles—will be needed for the additional population of just the next 20 years. (See pages 14 and 15.)

Indeed, land requirements per unit of population have been increasing dramatically. Rising levels of income are increasing the power to purchase one-family homes. Greater automobile ownership is enabling the development of land farther from the central city. Zoning requirements for residential lot sizes are rising. And lower and longer industrial and commercial buildings are being built on large, landscaped sites with extensive parking facilities.

Map 8 illustrates the spreading out of the region's land development during the period since the earliest Dutch settlements. The trend toward lower-density development has been in evidence ever since 1840.

Map 9 shows the extent of development between 1940 and 1954 as compared with 300 years of previous development. Table 2 page 15 summarizes trends in the rate at which the urbanized parts of the region have grown. It includes a rough forecast of land needs to the year 1975. There are indications that the difficult fiscal problems which sometimes attend overly dispersed populations may assert themselves in the next 20-year period and force closer-knit communities. We have assumed some reversal in the long-term trend toward greater land requirements per person.

Distribution of Population

Within the overall regional growth of four million persons, the growth of each county will hinge on two aspects of development: the geographic pattern of the regional spread and the degree of concentration of people on the land in each locality.

GEOGRAPHIC PATTERNS

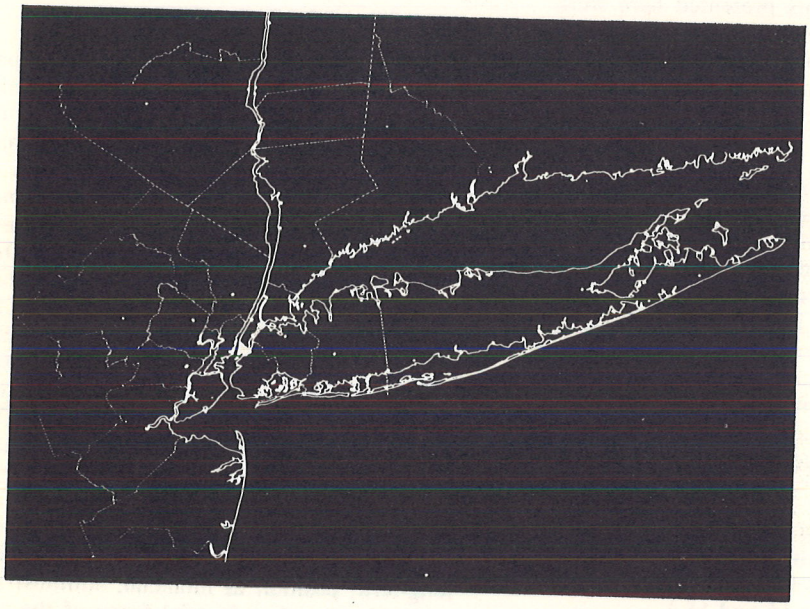
Historically the region's major growth pattern has been continuously outward from the center. This urban spread has gradually reached and incorporated the older independent cities in its path, cities like Jamaica (now part of Queens County), Yonkers and Newark. It is illustrated by the map showing *Stages of Development from 1820 to 1954* (page 28).The most recent stage of this growth is shown separately on the map *Land Developed 1940-1954* (page 30). For many years, accessibility to employment opportunities bordering the Port of New York, and especially to jobs in Manhattan, appears to have been the basic determinant of population distribution. Even the vast increase in employment outside the central commercial and industrial area since World War II has not reduced its primary attractive force enough to alter the basic centralized pattern of the region. The persistence of what might best be called the region's *core area* is due partly to the sheer magnitude and concentration of workers there. And it is due partly to Manhattan's assured long-term position as financial, administrative, communications, cultural and social focus of the region.

The pattern of past land development clearly reflects the factor of travel to and from the core. This relationship is brought out by two maps. In the first, *Accessibility to Central and Lower Manhattan* (page10) the rapid transit area of maximum accessibility coincides with the region's highest population densities. The one-hour connecting area coincides roughly with the present limit of large-scale multi-family development. The 1½ hour zone approximates the limit of all but the lowest-density residential development. This last point is further illustrated in the second map entitled *Land Development and Commuting Time* (page11) where the jutting fingers of suburban development correspond to the areas which are the best connected with Manhattan by rail.

Another aspect of the geographic pattern of population distribution is the comparative degree of maturity of the developed areas. This is shown in the map, *Development Status* (page11), which distinguishes between the older, stable urban centers and the areas of most intensive recent growth.

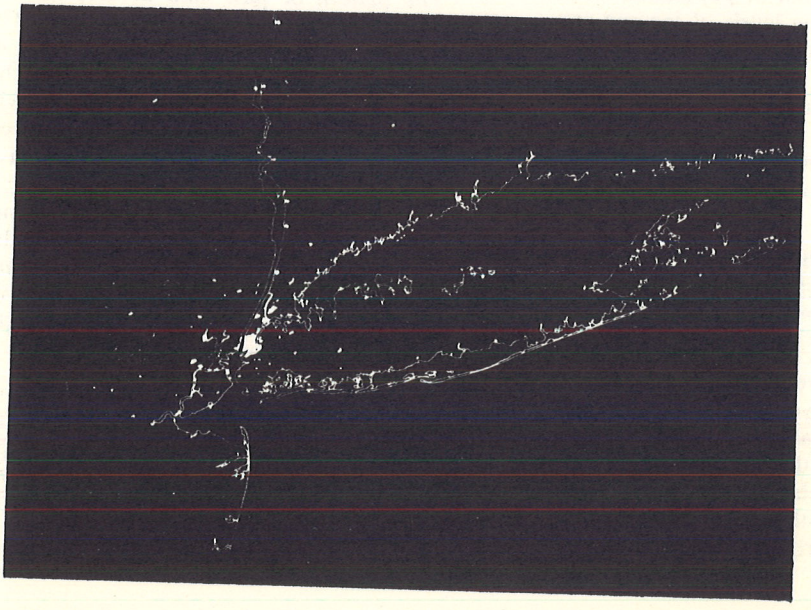
METROPOLITAN REGION

STAGES OF DEVELOPMENT



1820

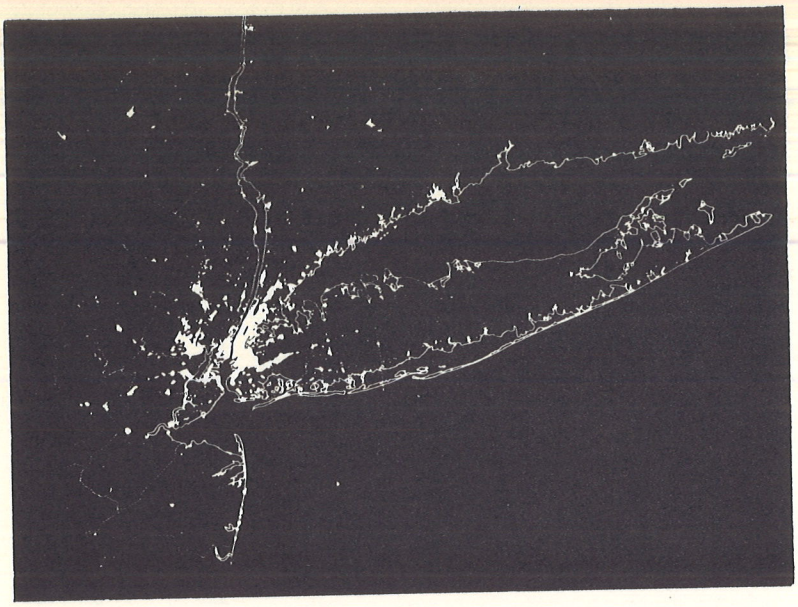
497,000 POPULATION
10 SQUARE MILES



1860

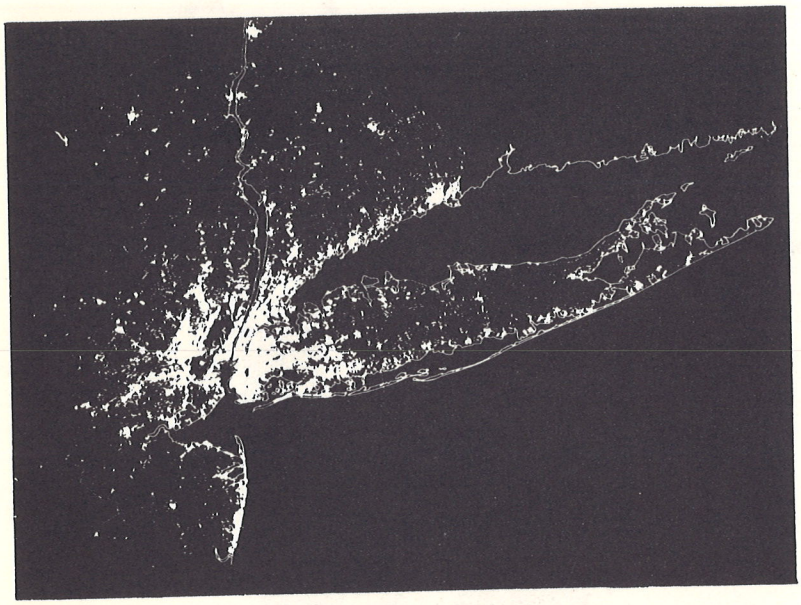
1,933,000 POPULATION
30 SQUARE MILES

map 8



1900

5,514,000 POPULATION
140 SQUARE MILES

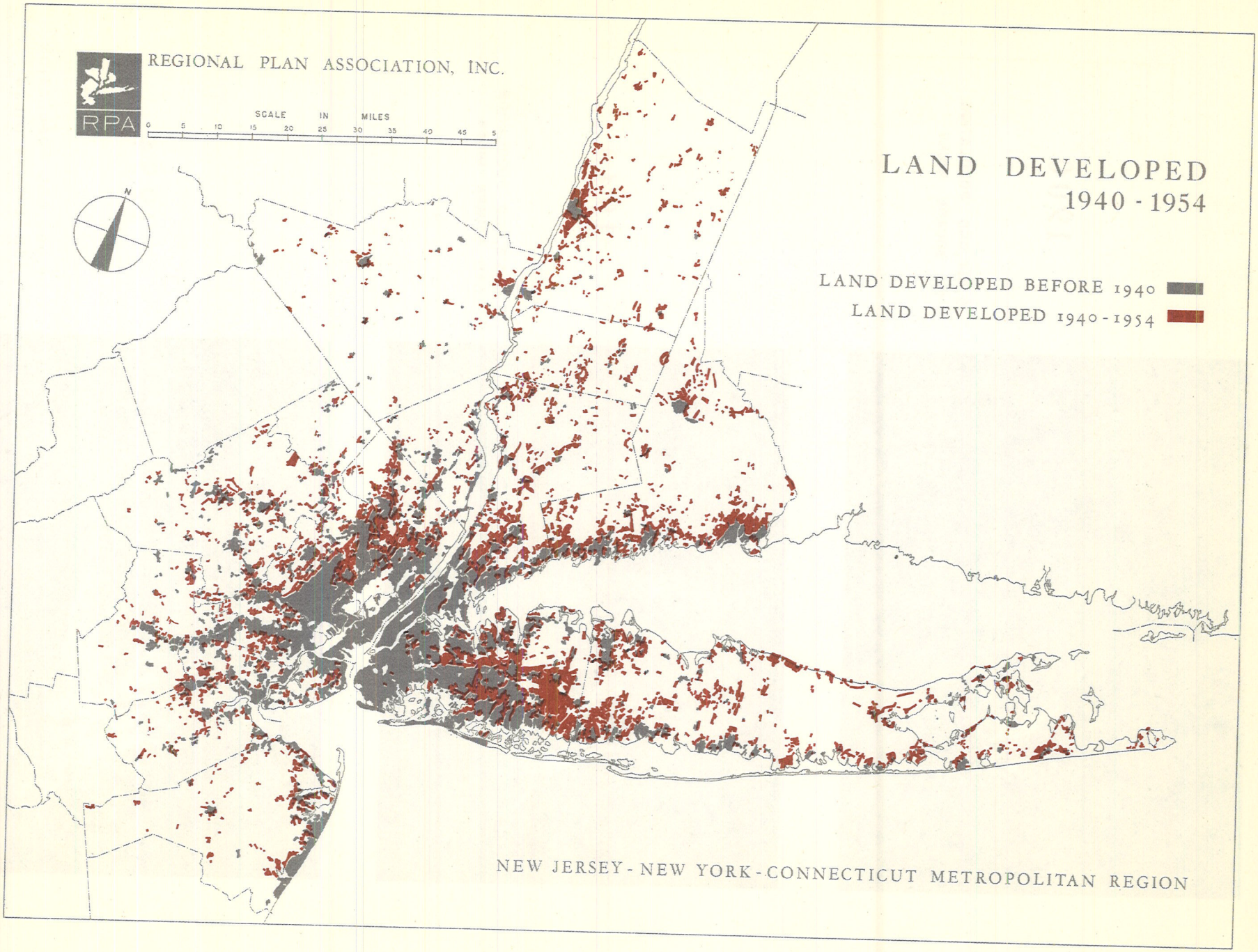


1940

12,518,000 POPULATION
640 SQUARE MILES

1954

15,000,000 POPULATION
1,100 SQUARE MILES


REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 5
N
LAND DEVELOPED
1940 - 1954
LAND DEVELOPED BEFORE 1940
LAND DEVELOPED 1940 - 1954
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 9

TABLE 20 LAND DEVELOPMENT BY COUNTY 1954

(in square miles)

	TOTAL LAND AREA	DEVELOPED LAND*		OPEN LAND**			
		Intensive†	Low Intensity‡	Recreation and Parkways	Slopes Exceeding 10%	Swamps and Marshes	Suitable for Development
CONNECTICUT	633.0	90.4	6.4	6.8	81.9	3.1	444.4
Fairfield	233.0	70.2	6.4	11.3	26.3	16.9	101.8
NEW JERSEY							
Bergen	128.0	57.4	8.0	11.1	3.3	11.2	37.0
Essex	45.0	20.6	5.3	0.9	0.4	10.8	7.1
Hudson	312.0	48.8	10.2	5.5	2.6	9.2	235.7
Middlesex	477.0	37.9	26.3	2.5	17.1	9.6	383.6
Monmouth	468.0	46.0	10.4	12.1	95.7	17.1	286.7
Morris	194.0	33.4	1.5	41.6	51.7	4.4	61.5
Passaic	307.0	23.0	6.2	0.6	23.9	0.7	252.5
Somerset	103.0	43.8	5.8	9.6	1.6	4.0	38.2
Union							
NEW YORK	816.0	38.7	4.6	0.6	211.6	2.2	558.4
Dutchess	284.0	136.4	12.1	25.9	3.3	15.5	90.7
Nassau	829.0	23.0	30.4	35.3	199.6	5.5	535.2
Orange	235.0	13.6	0.2	12.5	164.5	4.6	39.6
Putnam	172.0	14.3	12.8	38.8	29.5	3.4	73.2
Rockland	922.0	118.9	44.1	34.4	11.2	3.9	709.5
Suffolk	435.0	78.8	22.9	56.8	94.7	2.3	179.5
Westchester	43.0	31.0	0.5	6.5	—	1.3	3.7
Bronx	76.0	34.2	3.8	3.0	—	2.9	32.1
Kings	22.0	19.8	—	2.2	—	—	—
New York	113.0	97.8	4.0	5.8	—	3.8	1.7
Queens	60.0	29.0	1.8	6.0	0.7	5.0	17.5
Richmond	314.0	211.8	10.1	23.5	0.7	13.0	55.0
New York City	6593.0	895.2	213.6	306.3	1018.9	124.4	4034.6
Environs	6907.0	1107.0	223.7	329.8	1019.6	137.4	4089.6
REGION							

* Includes residential development at densities up to 2 acres per dwelling.
**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.
† Includes residential, commercial and industrial sites where buildings cover 10% or more of the land.
‡ Includes sites where less than 10% of the land is covered by buildings such as cemeteries, airports, and campus-type institutions and industries.

Source: RPA and New York Metropolitan Region Study

Three Rings of Counties

The combination of accessibility and maturity suggests the existence of three major homogeneous areas or regional rings significant to the distribution of future population. The first is the *core area*, where a degree of stability probably is to be expected. The second is the *inner ring* of counties. Here an approaching land saturation may be anticipated by the year 1975. The third is the *outer ring*, the area which will continue to have ample space for development beyond 1975. The outer ring probably will grow not only because of its own economic expansion, but also because it will receive a large population "overspill" as the inner ring fills up.

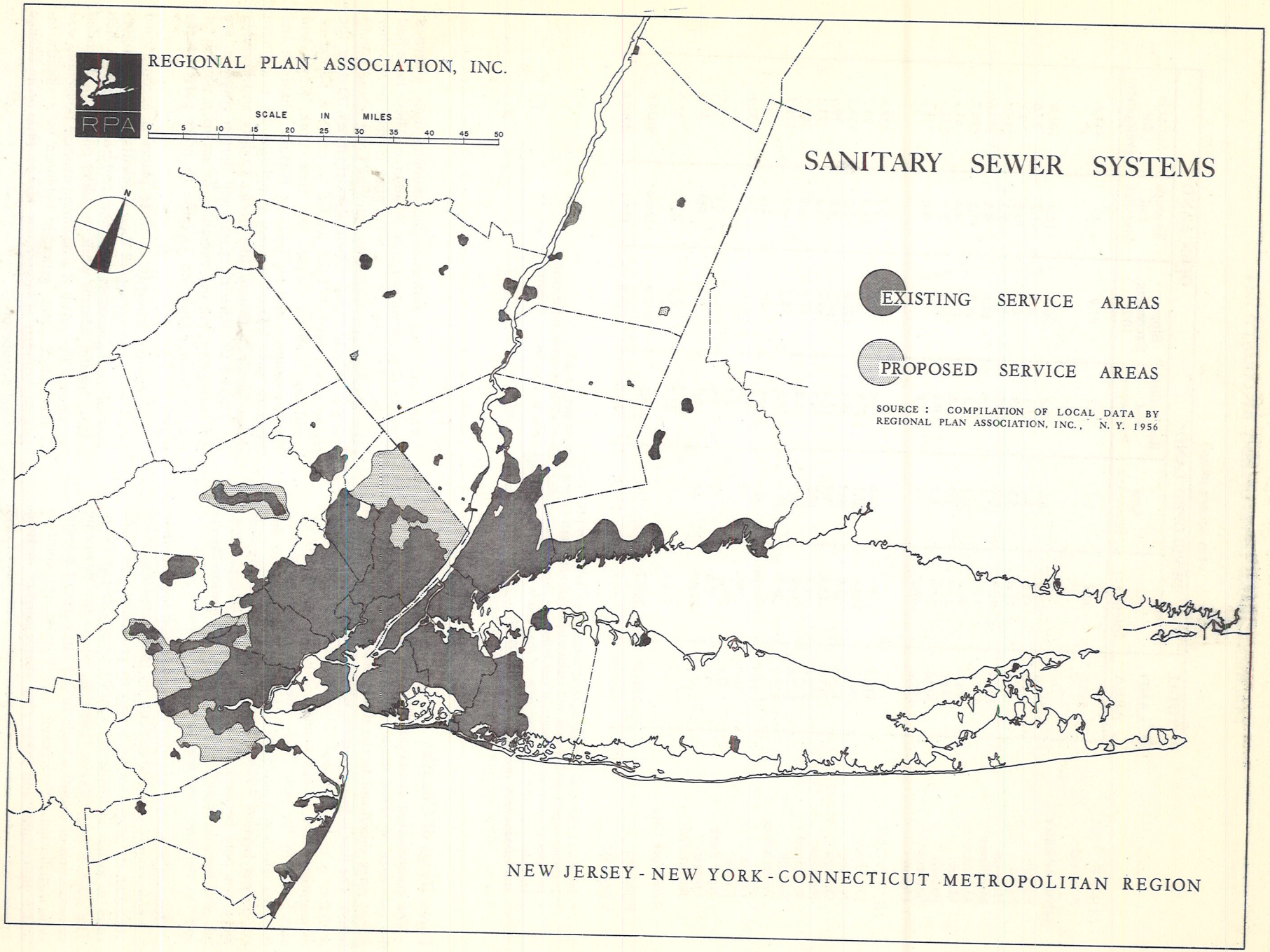
Because adequate analysis of units which are less than a whole county is made difficult by the limited nature of available statistics, we have had to generalize the three rings so as not to divide any county among two of them. The map, *County Types* (page 12), shows the three-ring classification of counties basic to our estimates of population distribution. Westchester and Passaic are counties which have outer and inner ring characteristics in their upper and lower sections respectively. One key factor underlying the ring classifications is shown on the map *Sanitary Sewer Systems* (see next page).

Core Area

The core area embraces the municipalities inherited from the days of water-borne commerce. These have had port facilities either on the New York Harbor or on other existing or historic waterways such as Long Island Sound and the Morris Canal. These municipalities, first in the region to be settled, have tended to reach a period of population stability. Some, like New York, Kings and Hudson counties and the cities of Passaic, Elizabeth and Yonkers have ceased gaining population or even have shown declines. Others, like Bronx County and portions of Queens, Westchester, Essex and Bergen counties, are still increasing, but are beginning to export a portion of their natural population increase to other parts of the region.

The relative maturity of these places is accompanied by the high average age of their residents. A large proportion of young couples and their children have left such places for the suburbs while the older people have tended to remain. The result is a declining average household size in the mature areas, generally balanced by a slightly increasing number of households. Hence, little or no change in total population.

We have estimated the future population of the core


REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 50
N
SANITARY SEWER SYSTEMS
EXISTING SERVICE AREAS
PROPOSED SERVICE AREAS
SOURCE : COMPILATION OF LOCAL DATA BY REGIONAL PLAN ASSOCIATION, INC., N. Y. 1956
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 10

areas by making certain assumptions about what is happening to their age composition, household sizes, changes in the use or density of land as well as the characteristics of the in-migrants who are attracted primarily to the core areas.

Inner Ring

The inner ring is the band of counties around the core area and highly accessible to it. It comprises the nearby suburbs where recent population pressures have been greatest and where future additions to the population may be expected to settle in the largest numbers. About 83 percent of the region's postwar population increment occurred in the areas identified as "Intensive Growth Areas" on the *Map of Development Status* (page 11). This zone lies mainly in the inner ring.

Two key assumptions underlie our forecast of population in the inner ring. First, continuous pressures for large-scale one-family developments are likely to saturate all available open land in the inner-ring counties before 1975. Second, a steadily mounting resistance to the ever-farther-out sites for one-family homes probably will cause a perceptible increase in multi-family activity in the portions of the inner ring nearest the core or otherwise specially accessible to the core areas.

In order to determine the capacity of the inner-ring counties to grow, these counties were studied intensively. Aspects considered included the availability of building land and its physical capacity to absorb additional population (see map on page 14) as well as factors which influence the density of development: accessibility to existing and projected highways and railroads; geological, subsoil and topographical conditions; sewerage possibilities; and zoning trends. The accompanying maps show these factors.

The steps taken to determine growth capacities were as follows: (1) A detailed survey was made mapping the present use of land throughout the 22-county region (see map in color inside back cover). (2) The vacant land was analyzed to find what amount is suitable for development, namely the unused land excluding swamps and slopes in excess of 10 percent which are not likely in this region to have intensive development. (3) The "absorption capacity" of this vacant land was determined by computing how many families might occupy it under the probable zoning at the time it would be developed. Land appropriate and needed for industrial expansion and regional parks was excluded. This figure is the likely capacity of the given county for one-family development. It was assumed that multi-family development would occupy only a negligible part of the vacant lands suited to one-family use.

As to the population increases which may result from multi-family construction, however, a different approach was necessary. Most apartments probably will be built in the next 20 years on land either not yet zoned for multi-family use or on sites now covered with buildings which will be redeveloped. Judgments therefore had to be made as to what may be the likely trend in apartment construction in the coming period in each county. To help form such judgments we made a survey of postwar building activity showing the extent of multi-family dwelling-unit construction in each county as a proportion of one-family construction. This relationship was then projected to 1975 with adjustments introduced in light of other known pertinent factors. Finally, the 1975 ratio thus estimated was applied to the one-family gain estimates which already had been made. This provided a guide for estimating total population increase for the seven counties of the inner ring (see Chart 23 page 33).

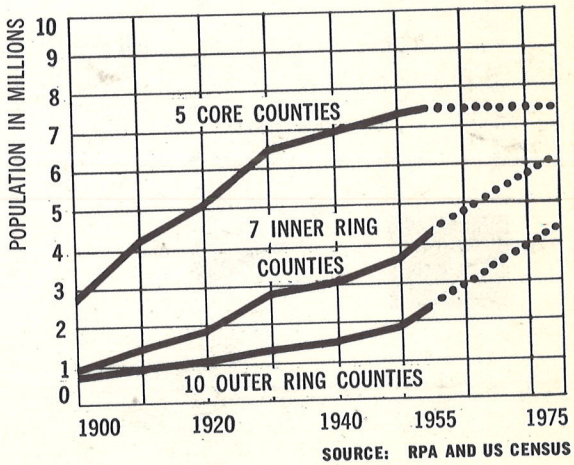
Outer Ring

Three main groups of people live in the outer ring of counties. The first group are the commuters to the core areas. Commuter areas in the outer ring, northern Middlesex County and western Suffolk County for example, are similar in most ways to the commuting parts of the inner ring. Farmers and non-farming country folk are the second group. The third group comprises the residents of the older cities in the metropolitan fringe, cities like New Brunswick, Somerville, Dover, Middletown, Newburgh, Poughkeepsie, Danbury and Bridgeport.

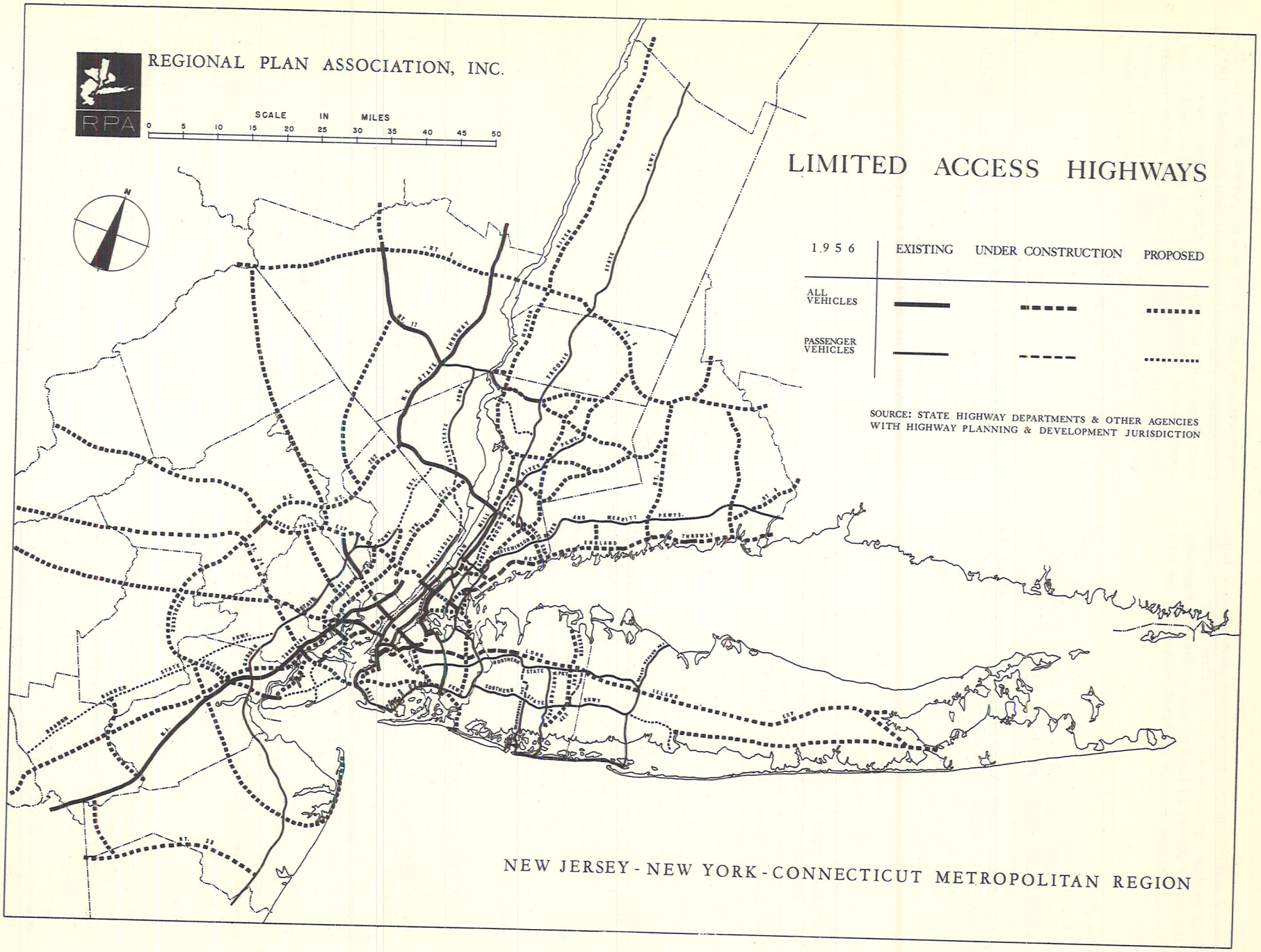
The considerable recent growth of the outer ring area is attributable in part to an increasing number of breadwinners willing to travel farther between home and work to gain the advantages of country living for their families. Even more important, perhaps, is the trend toward greatly increased employment opportunities in the nearby inner ring and even in the outlying areas themselves such as IBM at Poughkeepsie and Kingston; Ford at Mahwah; Brookhaven National Laboratory out on Long Island; and U.S. Steel at Morrisville.

With the impending saturation of the inner ring, the overspill factor actually may cause more than 2 million people to settle in the outer counties. This is an astonishing figure. Such large numbers of people surely will have a tremendous impact on the present rural fringes of the region. As to where they will settle, it is expected that well over half will be attracted to one-family homes in the southerly counties of the region both on Long Island and in New Jersey where accessibility to jobs is favorable and foundation conditions and gentle land contours make for easy building construction.

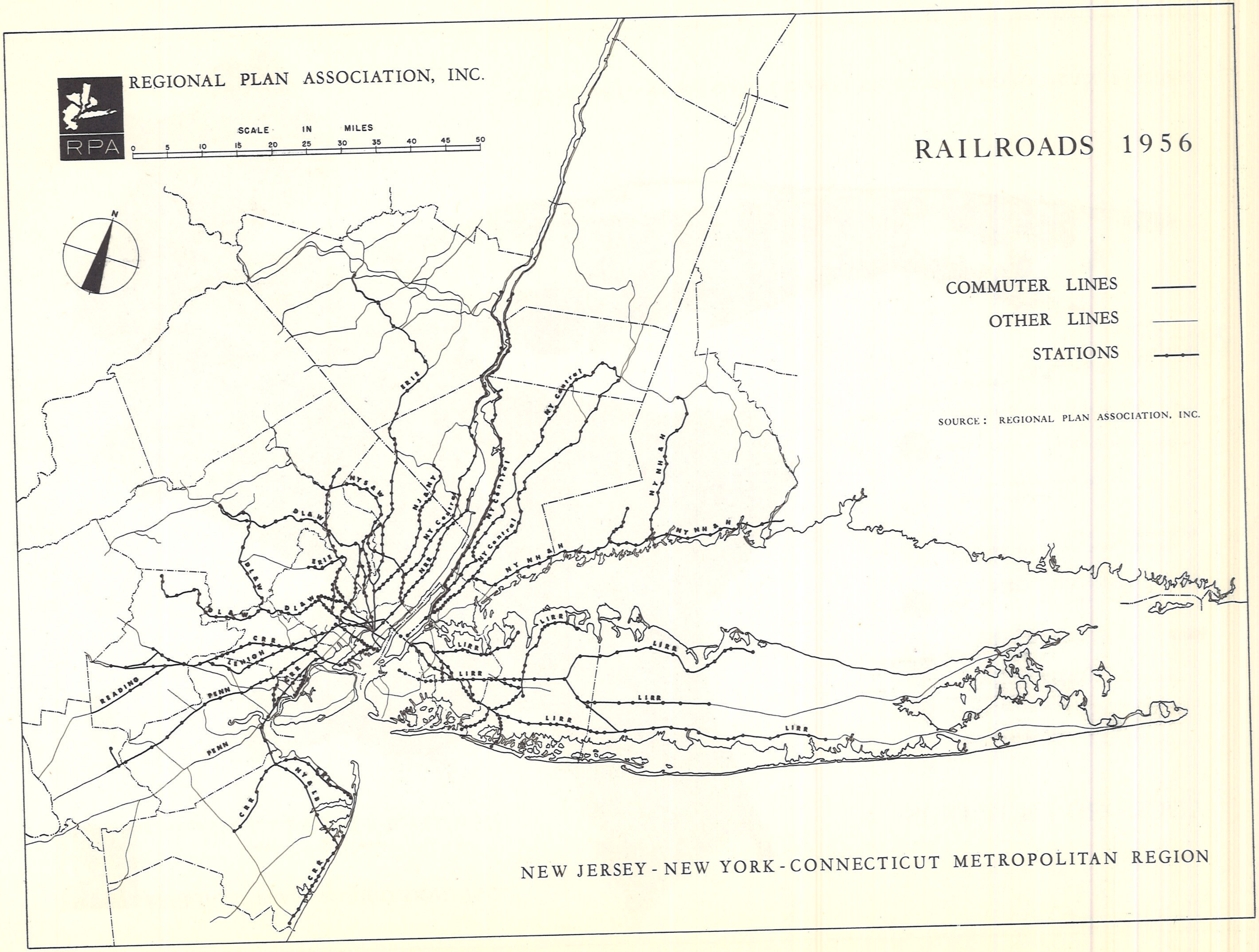
CHART 23 POPULATION OF THE REGION BY RINGS OF COUNTIES 1900 TO 1955 AND FORECAST TO 1975



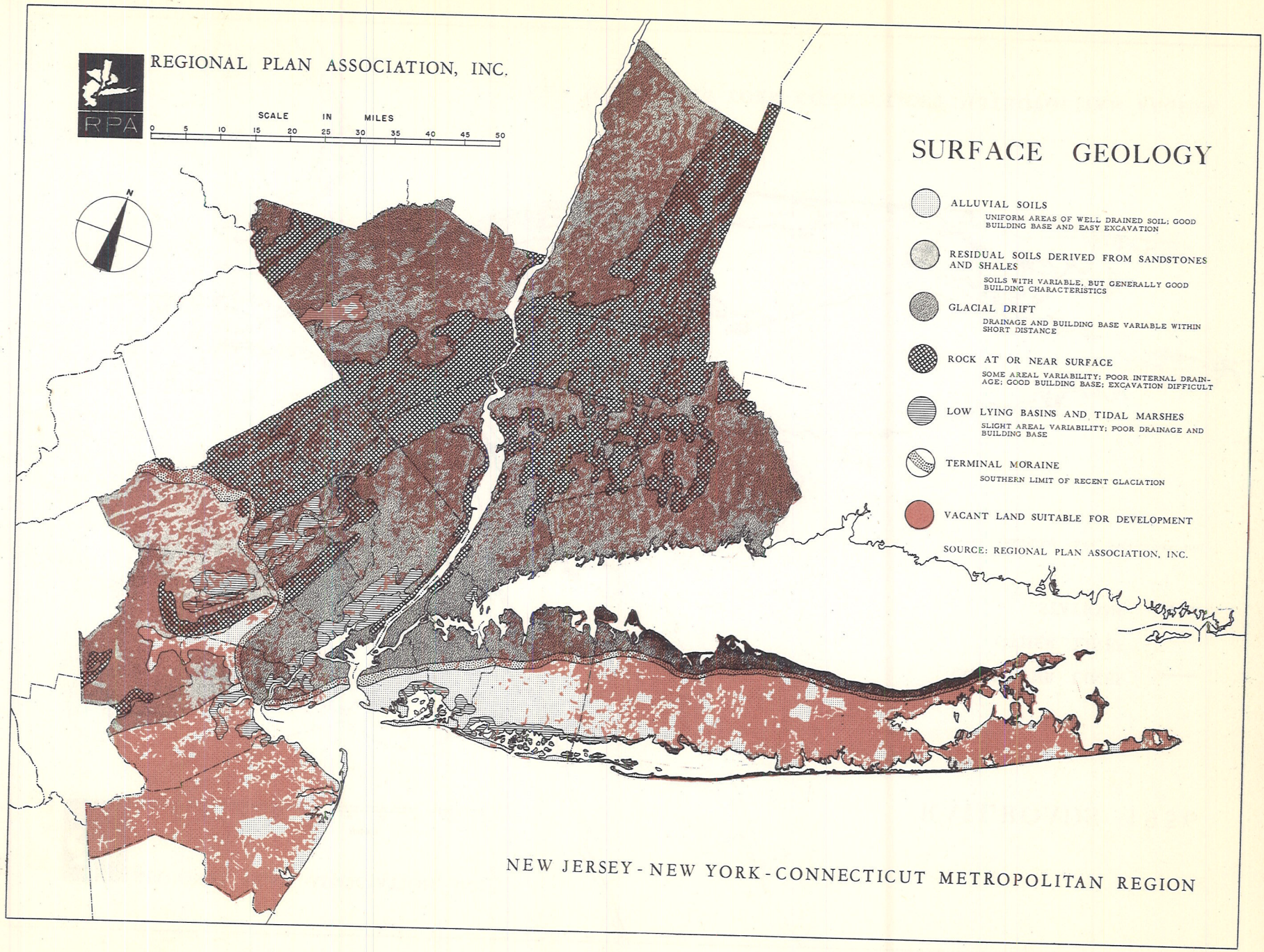
SOURCE: RPA AND US CENSUS


REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 50
N
LIMITED ACCESS HIGHWAYS
1956
EXISTING
UNDER CONSTRUCTION
PROPOSED
ALL VEHICLES
PASSENGER VEHICLES
SOURCE: STATE HIGHWAY DEPARTMENTS & OTHER AGENCIES WITH HIGHWAY PLANNING & DEVELOPMENT JURISDICTION
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 11

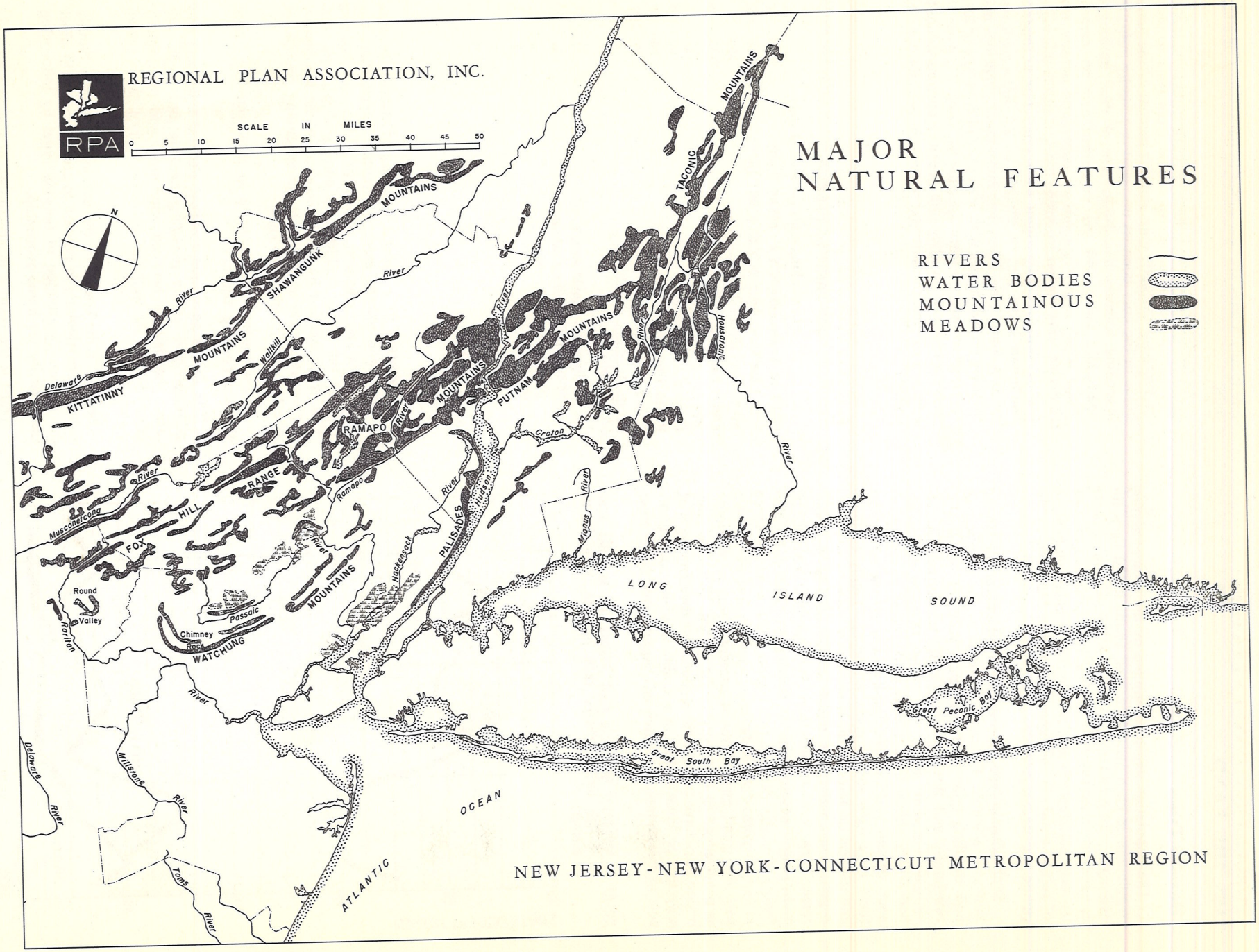

REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 50
N
RAILROADS 1956
COMMUTER LINES
OTHER LINES
STATIONS
SOURCE: REGIONAL PLAN ASSOCIATION, INC.
ERIE
NYS&W
DL&W
NJ&NY
NY Central
NY NH & H
LIRR
CRR
LEHIGH
READING
PENN
NY & LB
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 12


REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 50
N
SURFACE GEOLOGY
ALLUVIAL SOILS
UNIFORM AREAS OF WELL DRAINED SOIL; GOOD BUILDING BASE AND EASY EXCAVATION
RESIDUAL SOILS DERIVED FROM SANDSTONES AND SHALES
SOILS WITH VARIABLE, BUT GENERALLY GOOD BUILDING CHARACTERISTICS
GLACIAL DRIFT
DRAINAGE AND BUILDING BASE VARIABLE WITHIN SHORT DISTANCE
ROCK AT OR NEAR SURFACE
SOME AREAL VARIABILITY; POOR INTERNAL DRAINAGE; GOOD BUILDING BASE; EXCAVATION DIFFICULT
LOW LYING BASINS AND TIDAL MARSHES
SLIGHT AREAL VARIABILITY; POOR DRAINAGE AND BUILDING BASE
TERMINAL MORAINE
SOUTHERN LIMIT OF RECENT GLACIATION
VACANT LAND SUITABLE FOR DEVELOPMENT
SOURCE: REGIONAL PLAN ASSOCIATION, INC.
NEW JERSEY - NEW YORK - CONNECTICUT METROPOLITAN REGION

map 13

map 14


REGIONAL PLAN ASSOCIATION, INC.
RPA
SCALE IN MILES
0 5 10 15 20 25 30 35 40 45 50
N
MAJOR
NATURAL FEATURES
RIVERS
WATER BODIES
MOUNTAINOUS
MEADOWS
TACONIC MOUNTAINS
SHAWANGUNK MOUNTAINS
Delaware River
KITTATINNY MOUNTAINS
Wallkill River
RAMAPO MOUNTAINS
Ramapo River
PUTNAM MOUNTAINS
Croton River
Housatonic River
Hudson River
PALISADES
Hackensack River
Passaic River
Musconetcong River
FOX HILL RANGE
Round Valley
Chimney Rock
WATCHUNG MOUNTAINS
Raritan River
Millstone River
Toms River
Delaware River
Mianus River
LONG ISLAND SOUND
Great Peconic Bay
Great South Bay
OCEAN
ATLANTIC
NEW JERSEY-NEW YORK-CONNECTICUT METROPOLITAN REGION

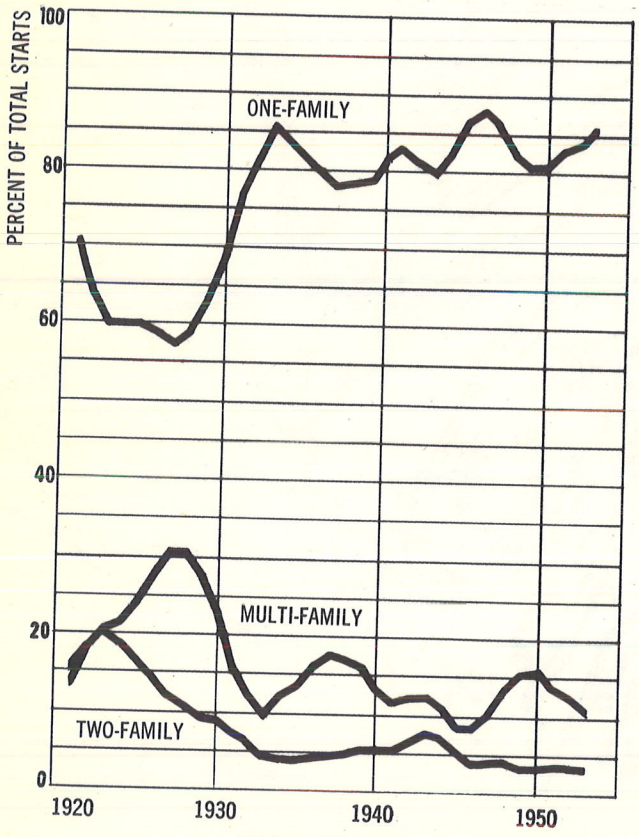
POPULATION CONCENTRATION ON THE LAND

Housing Types

The population densities implied by the present zoning regulations in each area were used as the initial basis for estimating the population capacity of vacant land. Zoning is not static, however. It changes as living patterns change. To help anticipate future zoning requirements an analysis of recent trends in the types of housing preferred by the public was undertaken.

Such housing-type statistics are available for the United States as a whole. Official records show the numbers of new dwelling units started in each year for one-family, two-family and three-or-more-family structures. The accompanying chart (page 38) shows that the nation has had a very sharp drop, almost to the point of disappearance, in new starts of two-family units. At the same time there have been steady gains in the one-family category and general declines in the numbers of multi-family units begun. This pattern of trend is true also in the New Jersey-New York-Connecticut Metropolitan Region. Its multi-family development is slowing in relation to one-family. Perhaps because this region is the most advanced in its transport network, however, and because of its sheer size, the trend away from apartment living is not quite as pronounced as elsewhere in the nation. Moreover, our region may have an especial demand for dwelling-units of only two or three rooms to accommodate its large numbers of minimum-size households. Apartments rather than one-family homes are best suited to the smallest dwelling-units.

CHART 24 NON-FARM DWELLING UNIT STARTS, BY HOUSING TYPE, IN THE UNITED STATES 1920 TO 1954 (3-year moving average)



SOURCE: U.S. BUREAU OF LABOR STATISTICS

As for distribution of housing types within the region, there are wide differences, of course, from place to place. In 1950, for example, only about 7 percent of the households in the core counties occupied one-family units; the inner-ring counties had 50 percent of their housing in one-family units; and the outer-ring had 66 percent. While rough approximations of population density may be drawn from the basic housing types, considerable variation in density exists within each type. For example, a one-family house may be situated on a 5,000 square foot lot or it may be on 5 acre lot; multi-family densities may be based on five stories with high ground-coverage or low-coverage two-story garden apartments. Table 21, page 38, shows a range of dwelling unit densities corresponding to a variety of typical residential patterns in our metropolitan region.

TABLE 21 DWELLING-UNIT DENSITIES OF TYPICAL HOUSING PATTERNS

(In dwelling units per acre of site)

Old-Law Tenements, N.Y.C. (1865-1900)	400 - 350
New-Law Tenements, N.Y.C. (1901-1929)	300 - 200
Manhattan House, N.Y.C.	200
Public Housing, N.Y.C.	125 - 25
Stuyvesant Town, N.Y.C.	120
Garden Apartments	60 - 20
Public Housing, Environs	60 - 15
Two-Family Homes	45 - 20
Fresh Meadows, Queens	18
One-Family Homes	
60-foot lots (Levittown, L. I.)	7
75-foot lots (current minimum)	6
100-foot lots (¼ acre)	4
½-acre	2
1-acre	1
2-acre	½

Source: RPA

In addition to a general lowering of density because of the trend toward more one-family homes, there has been a marked reduction of density within each housing type in the newer buildings as compared with the old. This is exemplified by the emergence of the low-density garden apartment as well as by an expanding average lot size for one-family home sites.

Several factors will combine to determine the future trend in housing densities:

The first is government policy. Federal legislation and administrative action regarding housing and credit will affect the balance between one-family and multi-family construction as well as between owned and rented dwellings.

Second is the course of the national economy. Family incomes, particularly in relation to credit terms, will affect the relative distribution of housing types by influencing the capacity for home-ownership.

Third is the relative inaccessibility of vacant land suitable for residential development to the region's central business districts on Manhattan. Home sites within what

is now considered "reasonable travelling time" from Manhattan's business districts are becoming exhausted. How far will commuters extend their journey-to-work to live in one-family homes? How much will the mounting travel burden encourage higher-density multi-family construction closer in? To what extent will jobs away from the region's core in the newer commercial and manufacturing establishments of the inner and outer rings increase the work opportunities available to persons living in relatively outlying areas? These questions cannot now be answered with finality, but they entered into the judgments which tempered our mathematical projections.

Household Size and Age Distribution of the Population

After the density of the dwelling units has been forecast, it remains to determine how many persons on the average will occupy each home or apartment. This figure is called *household size*. (It is slightly smaller than *family size* because the computations for average household size include unrelated individuals and such persons as inmates of institutions and university students.) Household size is affected greatly by the changing age distribution of the population. This in turn depends on many factors: economic conditions; marriage and birth rates; the tendency toward more or fewer children per family; medical science and longer life expectancy. Household size is affected also by the ability of unmarried adults or elderly parents of adults to maintain separate living accommodations.

The region's average household size has undergone a steady decline from 4.72 in 1900 to 3.43 in 1950 (Table 22, page 39). It is most striking to note that while population increased 2½ times in the past half century, the number of households increased 3½ times. The significance of this fact on the distribution of population may be dramatized by the following supposition: if the region's 1955 population were still living in the 1900 pattern of household size, there would be nearly 1½ million *fewer* homes in the region today and a drastic reduction in the amount of land in residential use.

TABLE 22 AVERAGE HOUSEHOLD SIZE* IN THE REGION 1900 TO 1955 AND FORECASTS FOR 1960 TO 1975

1900	4.72	1950	3.43
1910	4.65	1955	3.31
1920	4.41	1960	3.26
1930	4.07	1965	3.21
1940	3.72	1970	3.16
		1975	3.10

*Household size: Total population divided by total number of households.

Source: RPA and US Census

The crucial factors accounting for the actual decline in household size have been the continually aging population and the sharp drop in families with a dozen or so children. Increased life expectancy and a consequent rise in one- and two-person households have more than offset the fact that, as compared with the depression years, families with children may tend to have more children nowadays.

Indeed, were it not for the post-World War II increase in the birth rate and in children per family-with-children, the average household size would have declined much further. The chart on page 6 shows recent increases in second, third, fourth and successive births.

The dominance of the aging factor in determining household size is emphasized by recent U.S. Census material for the nation as a whole. National figures show that while *family* size reversed itself and increased from 3.54 to 3.60 between 1950 and 1955, *household* size continued its long-term decrease dropping from 3.37 to 3.34. In the immediate future, according to the Census Bureau, family size will again decline in the nation due to the levelling off of first and second births; and household size can be expected to decline somewhat further.

There is considerable variation in household size, however, among the counties of the region. Table 23, page 39, shows this. Figures for the three rings of counties suggest a regional pattern: the average 1950 household size for the core counties was 3.2; the inner ring, 3.4; and the outer ring, 2.9.

The smaller household average in the outer ring of counties apparently results as much from an attraction away from rural areas of young adults as from the presence of many retired single persons and older couples whose children are grown. Such persons are attracted to shore areas in Monmouth and Suffolk counties or to the quiet country atmosphere of counties like Putnam and Dutchess. The average household size of the 5 core counties is larger than that of the outer ring despite Manhattan's extremely low 2.4 average. Manhattan, too, is a haven for old people. In addition, it attracts the overwhelming portion of the region's young people without children. The preponderance of young parents with children explains why the inner ring of counties has the largest average household size.

TABLE 23 AVERAGE HOUSEHOLD SIZE IN THE REGION BY COUNTY 1940 AND 1950

	1940	1950
CONNECTICUT		
Fairfield	3.8	3.5
NEW JERSEY		
Bergen	3.7	3.4
Essex	3.8	3.5
Hudson	3.8	3.4
Middlesex	4.0	3.6
Monmouth	3.7	3.5
Morris	4.0	3.7
Passaic	3.7	3.3
Somerset	4.0	3.8
Union	3.9	3.5
NEW YORK		
Dutchess	4.2	3.9
Nassau	3.8	3.6
Orange	3.8	3.5
Putnam	3.7	3.3
Rockland	4.6	4.1
Suffolk	4.1	3.8
Westchester	3.9	3.6
Bronx	3.7	3.4
Kings	3.8	3.4
New York	3.4	3.1
Queens	3.6	3.4
Richmond	4.0	3.7
New York City	3.6	3.3
REGION	3.7	3.4

Source: RPA and US Census

The Aging Housing Stock and Increase of Blight

The aging of the housing supply will have a noticeable impact on regional development. As apartments, homes and neighborhoods become old, the standards to which they were built no longer remain satisfactory to many families, particularly in the middle- and upper-income groups.

Though redevelopment efforts may succeed in replacing sizable portions of the old housing supply, the bulk of it will be standing in 1975. Between 1950 and 1975 a doubling of the number of dwelling units 50 years of age and over is expected. If past experience serves as any guide, substantial population declines in many of the older areas may result.

Historically, in this metropolitan region as in other urban centers, many of the older neighborhoods have undergone considerable population declines. While particularly notable in Hudson County and Manhattan, this has been evident also in parts of Brooklyn, as well as in districts of Newark and Yonkers, the Bronx, and Passaic. Prior to the intensive post-war redevelopment effort and the current severe overcrowding of certain neighborhoods, Manhattan had declined by 20 percent from its peak population in 1910. Hudson County's peak population in 1930 was 6 percent higher than the present level.

It is probable that Brooklyn will begin to lose population within the next twenty years and that the Bronx's population will not increase. Three other aging counties, Essex, Passaic and Queens, may delay their overall declines beyond 1975, for despite large areas of old housing, they still contain quantities of vacant land available for residential development.

Expected Population Densities

The continuous reduction over a period of many years in both the average number of dwelling units per acre and the average number of persons per dwelling unit has had the effect of spreading population farther and wider throughout the metropolitan region. Indications are that density will continue its decline in the next twenty years but at a slower rate.

Distribution of Labor Force

In the earlier section on regional labor force (see page 23), it was noted that, based on a population forecast of 19.1 million in 1975, the regional labor force probably will increase to approximately 8.2 million persons. This forecast is based on the expected sex composition of the future population and on the expected *participation rates* by sex.

Below the regional level, however, projections by sex have not been feasible. Our county labor force projections (Table 24, page 40), therefore, have been based on assumed participation rates of the county population at large. These were applied to total county population to yield labor force estimates for each county. Each county's future participation rate was projected in the first instance from past county trends as related to the regional rate. In the case of certain groups of counties, however, the projections were modified in the light of peculiarities which may affect future participation rates.

TABLE 24 LABOR FORCE (RESIDENTS OF WORKING AGE) IN THE REGION BY COUNTY, 1940, 1950, 1955 AND FORECAST FOR 1975

(In Thousands)

	1940	1950	1955	1975
CONNECTICUT				
Fairfield	197	229	240	335
NEW JERSEY	1,455	1,632	1,750	2,505
Bergen	188	238	280	460
Essex	392	420	425	485
Hudson	315	305	295	270
Middlesex	103	119	145	295
Monmouth	70	98	115	250
Morris	52	66	75	165
Passaic	153	164	175	210
Somerset	32	42	45	90
Union	150	181	195	280
NEW YORK	4,227	4,492	4,660	5,360
Dutchess	47	54	65	110
Nassau	172	279	395	580
Orange	60	68	75	110
Putnam	7	8	10	20
Rockland	28	34	35	110
Suffolk	73	102	160	325
Westchester	257	280	320	430
N. Y. excl. N. Y. C.	643	825	1,060	1,675
Bronx	644	651	645	645
Kings	1,237	1,219	1,170	1,135
New York	1,024	1,008	925	860
Queens	604	706	770	840
Richmond	76	83	90	205
New York City	3.584	3,667	3,600	3,685
Environs	2,296	2,685	3,050	4,515
REGION	5,880	6,352	6,650	8,200

Note: Data for 1940, 1950 have been adjusted for underenumeration.

Source: RPA and US Census

On the one hand, for example, there are such areas as Hudson, lower Passaic and Manhattan. As places with an older and relatively stable resident population, these have maintained the highest participation rates in the region. If, as we expect, their younger households will tend to move into the newer suburban areas leaving aged persons behind, the participation rates of these older areas, though high now, may decline. Such a trend already has been observed.

Conversely, counties such as Morris, Rockland and Nassau probably will experience an increase in their participation rates. This would be a consequence of an expected influx of middle-income, commuting wage earners. These people and their families tend to have a higher participation rate than the original native population.

Participation rates by county are shown in the table on page 41.

EMPLOYED LABOR FORCE

Employed labor force estimates differ from total labor force estimates in each county because of two main factors: unemployment and armed forces.

Although for the region as a whole, 1975 unemployment was estimated at slightly under 6 percent of the civilian labor force, unemployment in individual counties may vary considerably from this figure. Counties in the core area or in the inner ring such as Hudson, Essex and the several boroughs of New York City generally have a higher-than-average unemployment rate. Conversely, counties of the outer ring such as Somerset, Dutchess and Morris, tend to have a relatively lower unemployment rate. After study it seemed most practical to apply the county-region unemployment ratios recorded in 1950 to the 1975 unemployment rate.

Similarly, the percentage of armed forces within each county in relation to the regional total will differ. Due to the location of government reservations, a significant portion of the region's armed forces have always been stationed in such counties as Monmouth, Nassau and Orange. Few members of the armed forces reside in Dutchess, Putnam or Somerset. Because any other available procedure would have been more arbitrary, we assumed that the 1950 distribution of the region's armed forces among the counties would also obtain in 1975.

The estimated employed labor force for any county, (Table 26, page 41), may be derived by subtracting the sum of the unemployed and the armed forces from the county labor force figures already calculated.

TABLE 25 PARTICIPATION RATES* IN THE REGION BY COUNTY 1940 AND 1950 AND ESTIMATES FOR 1975

	1940	1950	1975
CONNECTICUT			
Fairfield	47.2	45.4	41.9
NEW JERSEY	46.7	45.6	43.0
Bergen	45.8	44.2	41.8
Essex	46.8	46.3	44.1
Hudson	48.3	47.1	45.0
Middlesex	47.3	45.0	42.1
Monmouth	43.3	43.3	41.7
Morris	41.6	40.0	41.2
Passaic	49.5	48.6	45.6
Somerset	43.5	42.3	40.0
Union	45.8	45.5	43.8
NEW YORK	47.0	45.5	43.0
Dutchess	39.3	39.5	40.7
Nassau	42.2	41.5	41.4
Orange	42.9	44.5	42.3
Putnam	42.6	39.7	40.0
Rockland	37.1	37.7	40.0
Suffolk	36.8	36.9	38.5
Westchester	44.8	44.7	43.0
N. Y. excl. N. Y. C.	42.1	41.8	41.1
Bronx	46.2	44.9	43.0
Kings	45.8	44.5	42.4
New York	54.2	51.4	47.1
Queens	46.5	45.5	44.2
Richmond	43.5	43.3	41.2
New York City	48.1	46.5	43.9
Environs	45.4	44.3	42.2
REGION	47.0	45.5	42.9

*For definition of participation rates see Table 16.

Source: RPA and U.S. Census

Distribution of Employment and Selected Economic Activities

Employment figures cover jobs reported at the place of work. Forecasts of county employment, therefore, are based on judgments about the future location of business and industrial activity.

As already has been explained in the Introduction, our present state of knowledge about the factors determining commercial and industrial location in the New Jersey-New York-Connecticut Metropolitan Region is far too limited to enable other than very approximate forecasts of total employment in the region as far ahead as 1975. County figures are necessarily even less reliable than regional totals. Nevertheless, pending the results of the three-year New York Metropolitan Region Study which will not be available for several years to come, we are presenting our best current forecasts in this bulletin.

Lacking adequate knowledge about *why* certain changes in employment locations have been occurring, we have based the county employment forecasts presented in this section mainly on projections of past county employment trends. Mathematical extrapolations were made first and then adjusted to take rough account of certain known factors which will affect job locations but have not been operating fully in the past.

TABLE 26 EMPLOYED LABOR FORCE IN THE REGION BY COUNTY, 1940, 1950, 1955 AND FORECAST FOR 1975
(In Thousands)

	1940	1950	1955	1975
CONNECTICUT				
Fairfield	176	217	230	315
NEW JERSEY	1,243	1,542	1,665	2,365
Bergen	166	230	270	445
Essex	332	395	405	455
Hudson	260	283	275	250
Middlesex	87	114	140	280
Monmouth	59	85	95	220
Morris	46	64	75	160
Passaic	130	156	170	200
Somerset	28	41	45	85
Union	134	174	190	270
NEW YORK	3,507	4,194	4,390	5,020
Dutchess - Putnam	47	60	70	125
Nassau	152	266	375	550
Orange	52	60	60	95
Rockland	24	32	35	95
Suffolk	62	97	155	310
Westchester	221	269	310	415
N. Y. excl. N. Y. C.	559	784	1,005	1,590
Bronx	530	606	610	600
Kings	1,022	1,131	1,095	1,055
New York	814	923	860	790
Queens	521	674	740	800
Richmond	61	76	80	185
New York City	2,949	3,410	3,385	3,430
Environs	1,977	2,543	2,900	4,270
REGION	4,926	5,952	6,285	7,700

Note: Employed Labor Force is the designation of workers as reported by place of residence. Data for 1940, 1950 have been adjusted for underenumeration.

Source: RPA and U.S. Census

TABLE 27 EMPLOYMENT IN THE REGION BY COUNTY 1942 THROUGH 1955, AND FORECASTS FOR 1960, 1965, 1970 AND 1975 (In Thousands)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1960	1965	1970	1975
CONNECTICUT																		
Fairfield	206	219	203	183	209	216	213	190	210	218	231	234	234	235	245	275	295	320
NEW JERSEY	1338	1370	1308	1108	1245	1259	1299	1232	1321	1378	1380	1420	1358	1410	1520	1705	1890	2100
Bergen	108	133	133	100	117	125	136	137	149	167	178	185	183	199	245	305	350	400
Essex	375	398	371	330	366	370	375	363	380	392	386	389	366	366	375	385	400	415
Hudson	341	346	328	261	278	262	267	238	252	262	261	260	239	247	240	250	260	270
Middlesex	90	89	87	77	89	96	99	96	108	112	109	117	112	115	130	160	195	235
Monmouth	52	48	50	47	56	58	60	58	62	64	63	69	68	70	75	85	105	135
Morris	32	36	31	31	36	38	41	40	42	46	48	51	51	53	60	75	95	120
Passaic	175	150	140	121	139	137	144	138	147	142	145	146	141	149	150	160	165	165
Somerset	33	28	26	26	28	32	33	30	30	30	29	33	31	33	35	45	50	60
Union	133	141	142	113	135	140	143	131	152	163	161	170	167	178	210	240	270	300
NEW YORK	3833	3959	3937	3799	4214	4317	4398	4342	4422	4457	4472	4524	4485	4628	4750	4920	5100	5280
Dutchess-Putnam	47	46	46	45	49	53	54	54	56	58	58	60	59	63	80	90	105	115
Nassau	126	145	152	110	133	137	147	156	187	222	247	273	282	295	350	400	445	475
Orange	39	39	38	38	44	45	47	45	48	47	48	50	52	51	55	65	75	85
Rockland	18	19	18	18	20	21	21	21	23	25	25	26	25	28	35	40	50	60
Suffolk	59	66	61	50	64	65	70	74	69	75	98	93	99	109	150	195	230	265
Westchester	159	162	163	155	176	183	189	185	193	195	197	211	220	243	265	295	325	350
N.Y. excl. N.Y.C.	447	478	477	416	485	503	526	536	577	622	673	713	737	789	935	1085	1230	1350
Bronx									220				225	230	240	250	265	280
Kings									658				650	664	680	700	720	740
New York									2571				2458	2518	2430	2370	2320	2280
Queens									363				381	392	425	460	495	530
Richmond									33				34	35	40	50	70	100
New York City	3387	3481	3460	3383	3729	3813	3871	3805	3845	3835	3799	3811	3748	3839	3815	3835	3870	3930
Environs	1991	2067	1988	1707	1939	1979	2038	1958	2107	2218	2284	2367	2329	2434	2700	3065	3415	3770
REGION	5377	5548	5448	5089	5667	5792	5910	5764	5952	6053	6083	6178	6077	6273	6515	6900	7285	7700

TABLE 28 EMPLOYMENT IN THE REGION: PERCENTAGE DISTRIBUTION, BY COUNTY, 1942 THROUGH 1955 AND FORECASTS FOR 1960, 1965, 1970, 1975

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955	1960	1965	1970	1975
CONNECTICUT																		
Fairfield	3.8	4.0	3.7	3.6	3.7	3.7	3.6	3.3	3.5	3.6	3.8	3.8	3.8	3.7	3.8	4.0	4.0	4.2
NEW JERSEY	24.9	24.7	24.0	21.8	22.0	21.7	22.0	21.4	22.2	22.7	22.7	23.0	22.4	22.5	23.3	24.7	26.0	27.3
Bergen	2.0	2.4	2.4	2.0	2.1	2.2	2.3	2.4	2.5	2.8	2.9	3.0	3.0	3.2	3.8	4.4	4.8	5.2
Essex	7.0	7.2	6.8	6.5	6.4	6.4	6.4	6.3	6.4	6.5	6.3	6.3	6.0	5.8	5.8	5.6	5.5	5.4
Hudson	6.3	6.2	6.0	5.1	4.9	4.5	4.3	4.1	4.2	4.3	4.3	4.2	3.9	3.9	3.7	3.6	3.6	3.5
Middlesex	1.7	1.6	1.6	1.5	1.6	1.6	1.7	1.7	1.8	1.8	1.8	1.9	1.8	1.8	2.0	2.3	2.7	3.1
Monmouth	1.0	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.1	1.1	1.1	1.2	1.2	1.4	1.8
Morris	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.9	1.1	1.3	1.6
Passaic	3.2	2.7	2.6	2.4	2.5	2.4	2.4	2.4	2.5	2.3	2.4	2.4	2.3	2.4	2.3	2.3	2.3	2.1
Somerset	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.7	0.7	0.8
Union	2.5	2.5	2.6	2.2	2.4	2.4	2.4	2.3	2.6	2.7	2.6	2.8	2.7	2.8	3.2	3.5	3.7	3.9
NEW YORK	71.3	71.4	72.3	74.6	74.4	74.5	74.4	75.3	74.3	73.6	73.5	73.2	73.8	73.8	72.9	71.3	70.0	68.5
Dutchess-Putnam	0.9	0.8	0.8	0.9	0.9	0.9	0.9	0.9	1.0	1.0	1.0	1.0	1.0	1.0	1.2	1.3	1.4	1.5
Nassau	2.3	2.6	2.8	2.2	2.3	2.4	2.5	2.7	3.1	3.7	4.0	4.4	4.6	4.7	5.4	5.8	6.1	6.2
Orange	0.7	0.7	0.7	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.9	0.8	0.8	0.9	1.0	1.1
Rockland	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.4	0.5	0.6	0.7	0.8
Suffolk	1.1	1.2	1.1	1.0	1.1	1.1	1.2	1.3	1.2	1.2	1.6	1.5	1.6	1.7	2.3	2.8	3.2	3.4
Westchester	3.0	2.9	3.0	3.0	3.1	3.2	3.2	3.2	3.2	3.2	3.2	3.4	3.6	3.9	4.1	4.3	4.5	4.5
N.Y. excl. N.Y.C.	8.3	8.6	8.8	8.2	8.6	8.7	8.9	9.3	9.7	10.2	11.1	11.6	12.1	12.6	14.4	15.7	16.9	17.5
Bronx									3.7				3.7	3.7	3.7	3.6	3.6	3.6
Kings									11.0				10.7	10.6	10.4	10.1	9.9	9.6
New York									43.2				40.4	40.2	37.3	34.3	31.8	29.6
Queens									6.1				6.3	6.2	6.5	6.7	6.8	6.9
Richmond									0.6				0.6	0.6	0.6	0.7	1.0	1.3
New York City	63.0	62.7	63.5	66.5	65.8	65.8	65.5	66.0	64.6	63.4	62.4	61.7	61.7	61.2	58.5	55.6	53.1	51.0
Environs	37.0	37.3	36.5	33.5	34.2	34.2	34.5	34.0	35.4	36.6	37.5	38.3	38.3	38.8	41.4	44.4	46.9	49.0
REGION	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

NOTE: Estimates of total employment include all classes of workers by place of employment. Because of rounding, detail may not add to totals.

Source: Regional Plan Association, Inc. Estimates for 1942-1955 based on data from the United States Bureau of the Census and New York, New Jersey and Connecticut State Departments of Labor.

We began by reconstructing a picture of past trends in the distribution patterns of all types of employment among the counties of the region.

EMPLOYMENT TRENDS IN THE REGION 1942 TO 1955

The 1942-55 employment series presented in this bulletin differs from all previous estimates published for the region. For the first time the figures cover total employment in all job categories. In addition to private industry wage and salary workers these estimates include three other classes: government, self-employed and unpaid members of family enterprises such as those conducted in the home. Furthermore, they include estimates for employment categories previously excluded such as agricultural, interstate railroad and public administration workers.

Previous attempts at establishing employment estimates for non-census years have been hampered by lack of funds. Thus, figures published in Regional Plan Association Bulletins No. 84 (Dec. 1953) and No. 85 (Nov. 1954) covered only *selected* employment—75 to 85 percent of total employment. The Association's work last year for the Metropolitan Rapid Transit Survey, however, provided an opportunity to derive the complete figures which are presented in this report.

Employment estimates are available annually from the three state departments of labor for the jobs which are covered by state unemployment insurance. These mainly comprise private-industry wage and salary workers. It was necessary, however, to estimate the jobs in such additional categories as agriculture, interstate railroads and public administration and for such groups as the self-employed and unpaid family workers. The approximate proportion of these latter jobs to total employment as revealed in the *population characteristics* section of the decennial U. S. Census was used as the basis for adjusting and expanding the annual figures. Differences in state and national industrial classifications and other problems inherent in the available data made the adjustment process somewhat complex. Accordingly, while the employment series published herewith is the most comprehensive and detailed ever developed for the region, it must be used with discretion (Table 29, page 43).

1942-55 EMPLOYMENT TRENDS ANALYZED

What do we learn about recent job trends from an analysis of the 1942-55 employment series?

The earliest year for which we were able to make reliable estimates of total employment was 1942. Since that date the region's economic development may be divided into two general periods: first, the World War II and post-war adjustment period extending through 1946; second, the period from 1947 through 1955 which includes both peacetime and Korean War years.

In the course of the first period, 1942-46, the significant employment increases generated by the war were partially negated when wartime industries cut back production between 1943 and 1945 as the tide of war became favorable. Among the manufacturing plants hardest hit were those in the electric machinery, ordnance, and shipbuilding, aircraft and other transportation equipment industries. During the same 1943-45 period of war production cutbacks, the non-manufacturing enterprises – services, retail and wholesale trades and construction – held steady at about 3.4 million jobs. Within the first period, after a rise to 5.5 million jobs in 1943 total employment declined to a low of 5.1 millions in 1945.

During the second period, 1947-55, regional employment changes again paralleled national trends. The upward trend in employment was marred by the brief pre-Korean War decline and again by the recession of 1954. Significantly, the regional dips in employment in both 1949 and 1954 were almost entirely in manufacturing enterprises. As in the earlier period, non-manufacturing enterprises grew steadily. Total regional employment increased in the course of the second period from 5.8 million in 1947 to 6.3 million in 1955. This was an increase of 500,000 persons or 8.6 percent of all employment. Within this total growth, manufacturing employment increased only from 1.8 million to 1.9, but non-manufacturing rose from 4.0 million to 4.5 million jobs.

Beyond this analysis of all categories of employment, certain other series throw some light on what has been happening. Basic data obtained from the U.S. Censuses of Manufactures since the turn of the century permit a long-term observation of shifts in manufacturing location

TABLE 29 EMPLOYMENT IN THE REGION BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	52.4	52.4	52.3	52.3	52.4	52.4	52.4	52.5	52.5	52.2	51.3	51.9	51.6	51.7
Construction	222.0	141.6	126.2	138.3	229.0	254.2	281.7	276.7	309.0	307.9	284.1	282.7	293.3	317.1
Finance, Insurance and Real Estate	364.0	344.0	330.7	330.2	369.3	375.9	386.9	383.1	391.8	390.9	388.5	399.1	406.4	417.3
Manufacturing	1931.4	2197.3	2080.9	1663.0	1890.5	1801.6	1820.5	1710.4	1834.9	1839.1	1900.4	1939.3	1827.5	1861.1
Retail Trade	762.4	734.3	720.9	731.7	847.6	901.2	932.7	933.4	945.1	939.0	936.1	943.2	954.7	974.8
Services (Personal and Business)	1059.5	1030.4	1068.1	1062.8	1141.4	1184.5	1213.2	1206.4	1234.4	1284.5	1289.5	1320.5	1335.9	1407.8
Transport, Communications, Public Utilities	422.3	433.3	440.8	439.7	476.9	568.2	558.7	541.7	528.1	558.7	550.9	562.8	537.5	550.7
Wholesale Trade	196.0	197.2	208.0	225.4	272.7	295.1	300.6	295.4	299.4	301.9	302.7	308.6	306.0	312.4
Other	367.3	417.1	419.8	446.1	387.7	359.1	362.7	363.9	357.2	378.8	376.5	369.9	364.1	380.1
Total	5377.3	5547.6	5447.7	5089.5	5667.5	5792.2	5909.4	5763.4	5952.3	6053.0	6080.0	6178.0	6077.0	6273.0

Source: RPA, U.S. Census and N.J., N.Y., Conn. State Depts. of Labor

and employment within the metropolitan region (Table 30 page 44). During the last fifty-five years, the nine New Jersey counties have increased their share of the region's manufacturing employment by 9 percentage points. Jersey factory jobs rose from representing 25 percent of the region's total in 1899 to being approximately 34 percent in 1955. The largest gains occurred in Hudson, Bergen, Union and Middlesex counties. On Long Island, Nassau and Suffolk counties increased their combined share of regional manufacturing employment from less than one percent in 1899 to almost 6 percent in 1955. But manufacturing employment in the five counties of New York City fell from two-thirds of the region's total in 1899 to only one-half in 1955.

TRENDS IN THE REGIONAL DISTRIBUTION OF RETAILING

Further indications of a shift in emphasis between the central city and the environs appear from a review of the recent trends in retail store locations, employment, sales and shopping patterns.

The retail shopping pattern in the metropolitan region, continuing a long-term shift, changed extensively even in the few years between 1948 and 1954. Consider the preliminary data on aggregate retail sales given out by the U.S. Bureau of the Census. Total retail sales for the 22 counties of the region (adjusted to 1948 dollars) increased by 14.4 percent in the 6-year period from $13.7 billion in 1948 to $15.7 billion in 1954. The suburban counties accounted for $1.8 billion or 91.5 percent of the region's $2.0 billion increase; only $0.2 billion or 8.5 percent of the rise occurred in New York City.

The growing suburban market is being tapped almost entirely by stores in the suburbs. The New York City percentage increase in sales, 2 percent, was exceeded in every one of the 17 suburban counties. Meantime, combined retail sales in the suburbs increased 32 percent. Among individual counties, the largest rate increases in retail sales were 89 percent in Nassau, 69 percent in Suffolk and 41 percent in Morris County.

Dollar-adjusted retail sales volumes in Manhattan actually declined by 3 percent in the period. Only Queens, among the three other heavily populated boroughs of New York City gained noticeably in retail sales.

What may be most significant was the reversal that took place in the per capita retail spending as between the central city and the suburbs. In 1948, the 17 suburban counties averaged $993 in per capita sales as against New York City's $1,024. By 1954 the suburban per capita figure of $1,084 exceeded the central city's per capita sales of $1,017 by $67. Thus, suburban increases in retail sales outstripped suburban population gains in many places. Some reasons for this are discussed below.

TABLE 30 MANUFACTURING EMPLOYMENT IN THE REGION BY COUNTY 1899 TO 1954

	1899	1919	1929	1939	1947	1954
CONNECTICUT						
Fairfield	34.7	81.0	69.5	75.3	113.0	108.1
NEW JERSEY	176.3	448.1	407.6	416.2	586.8	616.0
Bergen	5.1	26.5	29.0	33.4	55.7	84.8
Essex	52.9	125.2	107.4	95.8	140.3	135.0
Hudson	42.5	134.9	109.8	110.0	143.9	130.2
Middlesex	10.7	33.3	39.6	41.4	56.2	63.1
Monmouth	3.1	6.1	7.1	8.3	11.6	13.2
Morris	5.1	7.4	6.8	7.2	12.0	18.3
Passaic	38.6	69.8	65.1	66.4	78.0	73.7
Somerset	3.4	7.4	7.5	10.7	18.3	14.1
Union	14.9	37.6	35.5	42.9	70.9	83.6
NEW YORK	490.1	880.2	797.2	677.8	1,101.8	1,137.9
Dutchess	7.3	11.7	9.2	9.0	15.4	22.4
Nassau	1.5	3.1	3.9	4.8	23.7	97.4
Orange	8.4	16.7	11.2	9.6	12.9	14.5
Putnam	*	*	*	*	*	*
Rockland	4.9	5.5	4.8	6.4	8.8	9.1
Suffolk	2.8	2.9	3.2	3.9	13.3	13.6
Westchester	13.8	28.3	27.7	24.3	42.7	45.3
N.Y. excl. N.Y.C.	38.6	68.3	59.9	57.9	116.8	202.3
New York City	451.5	812.0	737.3	620.0	985.0	935.5
Environs	249.6	597.4	537.0	549.4	816.6	926.5
REGION	701.2	1,409.3	1,274.3	1,169.3	1,801.6	1,862.0

Note: Because of rounding, detail may not add to totals

*Included with Dutchess County

Source: RPA and U.S. Census of Manufactures

Suburban Branch Department Store Growth

In December 1951, the Regional Plan Association published a study, Suburban Branch Stores in the New York Metropolitan Region. Eighty suburban branches of New York stores were then reported to have been established in the environs of the region, virtually all during the preceding twenty-five years. Of these, 51 were department stores or major apparel and specialty stores. Since January 1952, 14 new stores in these categories have been opened and 20 more are under construction or planned. Four branch stores have been closed.

The suburban expansion also is being spurred materially by additions to existing buildings. In most instances, these expansions just about double the amount of selling space already available in a branch. In addition to the many entirely new branch store openings referred to above, six expansions have been completed since 1952, five others are under construction and one is in the planning stage.

Whether measured in space or in sales, the average size of the new branches is very much larger than the earlier ones. In fact, the recent five-year expansion of existing suburban branch stores appears to be equivalent to the *total expansion* of such stores in the entire previous twenty-five year period.

In the meantime, some of the large stores in the central area have sought to cope with the suburban competition by expanded advertising and by the promotion of mail and phone orders and free deliveries. Nevertheless, a number of the city's old established department stores have found themselves in financial straits because they were situated in locations now outside the main stream of shopping activity. Other factors contributing to their difficulties were obsolescent plants and merchandising policies, and the pressure of competition from other department stores and discount and specialty houses. As a result, several large downtown stores were forced to close their doors. These include: Hearns on 14th Street, Wanamakers on 9th Street, McCreery's on 34th Street, Namm-Loesers in downtown Brooklyn, and most recently Lewis and Conger on the Avenues of the Americas. One medium sized department store in Newark also closed.

Other Branch Store Growth

Apart from department store branches, discount houses also have begun to enter the suburbs. Their newly established branches often are considerably larger than the original stores in Manhattan and carry a larger range and fuller selection of merchandise. For example, one firm with two stores in Manhattan now also operates one branch in White Plains and has recently opened two large outlets in Nassau County. Added to this are literally hundreds of new specialty stores, chains, and independents springing up in the suburbs in established shopping districts and in the newly created shopping centers. These are beginning to have a perceptible effect on regional patterns of employment.

Factors Underlying the Decentralization of Shopping

(1) Retail trade has traditionally followed shifts in population. The rapid growth of the suburban population compared to the relative stability in the core areas of New York City probably is the fundamental cause of such commercial decentralization as has taken place.

(2) Another factor of considerable importance is the change in income distribution as between the city and the suburbs. The in-migration of low-income families to the city accompanied by the exodus of middle- and upper-income families from the city to the suburbs is having profound effects on retail sales patterns. Purchasing power in the city has been affected adversely. Aggregate income in the suburbs is increasing steadily.

(3) Apart from income differences, the suburban family has other characteristics which have tended to produce higher retail sales per capita. The suburban family is often in the early stages of family formation. The children's department in the suburban branch store frequently is larger than similar departments in downtown stores. Moving from a small apartment to a house generates a demand for additional furniture and furnishings, appliances, garden supplies and equipment, outdoor furniture and perhaps an additional car.

(4) The one-stop shopping idea, the ability to park and shop with the family, avoidance of the inconveniences and increased costs of subways and downtown congestion —all these have placed the suburban shopping center in a favorable competitive position. Of course, there also are potential disadvantages in suburban shopping centers: increased costs, difficult personnel recruiting problems, light pedestrian traffic and lack of public transportation. These appear on the whole to be out-weighed by the advantages.

Some of the suburban branch stores have proved too small for successful operation. Others have been poorly located. Expansions and relocations are adjustments one can observe frequently in suburban branch operation. For the most part, however, suburban retail expansion has been eminently successful.

EMPLOYMENT PROSPECTS OF THE MAJOR SECTORS OF THE REGION

While total employment in New York City during the post-war years has been relatively stable, continued growth has occurred in the environs of the region. Consequently, the proportion of employment within the central city has declined from 65.8 percent in 1947 to 61.2 percent in 1955. Conversely, the environs increased their proportionate share from 34.2 percent in 1947 to 38.8 percent in 1947. These past employment trends coupled with many other supporting factors appear to indicate that the main share of future employment increases will be outside New York City. To judge, therefore, just where the 1½ million job increase will take place in the region in the next 20 years, it is important to consider the factors affecting industrial location in different parts of the environs.

New Jersey Sector

Of the nine northeastern New Jersey counties in the region, the 4 outer-ring counties have grown steadily in employment since 1945. The 4 inner-ring counties, however, those closest to New York City, do not present as consistent a pattern of growth. These counties range from fast-growing Bergen, where employment rose from 100,000 in 1945 to 199,000 in 1955, to Passaic which added only 28,000 jobs. Employment in Hudson, the one core-area county in New Jersey, fell from 278,000 in 1946 to 247,000 in 1955.

Among the main factors which will affect the growth of the inner- and outer-ring groups of counties in New Jersey are their relative proximity to the New York market and suppliers; their respective amounts of vacant industrial land; the quality of their transportation facilities; and the presence or absence of site or municipal complications which might inhibit production and marketing.

Particularly in the latter decade of the next 20 years, it is likely that an expanding industrial area moving northward from Philadelphia and the Trenton-Morrisville area may spur industrial development in the southerly parts of the New Jersey sector. Indeed, four New Jersey outer-ring counties — Morris, Somerset, Middlesex and Monmouth—all are expected to become increasingly important as sources of employment in the region. They all have had steady increases in their levels of employment since the end of World War II. Middlesex has shown the greatest gain between 1946 and 1955. The others in descending order are Morris, Monmouth and Somerset. Room for expansion coupled with transport convenience account for the industrial growth of these outer-ring counties. In Middlesex County, Johnson and Johnson, the pharmaceutical manufacturing firm, serves as an example of one school of advanced thinking about industrial location. Its activity has been decentralized from crowded New Brunswick to several modern one-story structures on very large parcels in a sparsely settled area. Off-street parking and loading facilities, easy access to important highways and an opportunity for rail freight, characterize the new locations.

Northern Sector

The northern sector of the region consists of Rockland, Westchester, Fairfield, Orange, Dutchess and Putnam counties. The group accounted for less than 10 percent of the region's employment in 1955. There is little indication from recent trends or other factors that this role is likely to be changed substantially in the near future. Factors which lead to this conclusion are: the long-standing stability of this sector's proportion of total regional employment; relatively slow rates of population growth in most of the northern sector counties; and the limited and highly selective character of the recent in-migration of industry into such residential counties as Westchester and Fairfield.

Westchester and Fairfield counties constitute the only major centers of large-scale employment in the northern sector. Westchester had 3.9 percent and Fairfield 3.7 percent of the region's employment in 1955. Rockland, Orange, and Dutchess-Putnam combined, the four other counties each had 1 percent or less of the region's employment in 1955.

Long Island Sector (Nassau and Suffolk Counties)

Employment on Long Island has grown and should continue to grow despite a number of serious handicaps. Accessible to the mainland only at its western extremity, Long Island has neither markets nor transport outlets in three major directions excepting by air. Raw materials for manufacturing must be imported through New York City. If sales are made anywhere except on the Island itself, the finished products must be shipped back, retracing the route of raw materials.

This "double-hauling" results in generally higher transport costs for manufacturing firms in the Long Island sector when compared with similar firms in New York City or in New Jersey. This basic geographic factor probably will continue to limit the growth of manufacturing on Long Island primarily to three types of product: (1) goods aimed largely at local Long Island markets; (2) items such as instruments, electronic equipment and cosmetics for which transport costs of materials and finished product are a minor percentage of total cost; (3) aircraft including aircraft instruments and equipment which can be flown out and for which, consequently, double transport costs do not figure.

It is no accident then that Long Island's largest industries are aircraft and instruments. During the next 20 to 25 years these two industries on the Island may actually double their employment provided Long Island continues to receive its historic share of the nation's jobs in the expanding aircraft industry.

Although the Narrows Bridge, the new link to the George Washington Bridge via the Cross Bronx Expressway, and the Long Island Expressway itself will improve the Long Island transportation situation when they are completed, the basic disadvantages enumerated above probably will still continue in some degree relative to nearby competing areas and will tend to discourage types of basic employment other than those cited above.

It should not be overlooked, however, that Long Island offers many advantages conducive to industrial growth. The characteristics of its large population are important assets. According to the 1956 Survey of Buying Power by *Sales Management,* the effective buying income per family is approximately $8,000 in Nassau County and $5,500 in Suffolk. These spell very high purchasing power. The Long Island labor force is young and well educated. Nassau people average 31.3 years of age. The adults average 12.1 years of schooling. This means that Nassau has about the youngest and best educated citizens of any county in New York State and probably in the rest of the region as well.

Proximity to New York City gives Long Island two other advantages with respect to industrial location. Long Island can draw upon the labor force of several boroughs in New York City, particularly Brooklyn and Queens. Further, the Island's close proximity to the universities and engineering schools of New York City is especially important to such new industries as aircraft, instruments, machinery and electronics, all of which must draw on large numbers of engineers.

Indeed, the net effect of the foregoing economic disadvantages and opportunities probably will raise employment in Nassau County from 295,000 in 1955 to

475,000 in 1975, and in Suffolk from 110,000 to 265,000. Such an outcome is strongly suggested by recent trends on the Island.

The rapidity with which Long Island's employment has increased recently is revealed by the rise of its share of the region's total jobs. This increased from 3.4 percent in 1942 to 6.4 percent in 1955. Nearly all industry groups shared in the growth. As might be expected, however, over one-quarter of the expansion resulted from employment increases in the aircraft and associated instrument industries.

Significant increases were experienced similarly in businesses dependent on local population growth such as services and retail trade. The latter group increased in Nassau from some 25,000 jobs at the close of World War II to approximately 60,000 by 1955. Services in Nassau increased from 35,000 to 65,000 jobs in the same period. In Suffolk, during the postwar era, retail trade employment rose from 9,000 to 21,000 while services increased from 15,000 to 37,000.

In view of the great population gains still to come on Long Island, the current expansion of employment there is expected to continue for a long time to come. In fact, both Nassau and Suffolk should experience greater percentage growth in employment than in population if they are able to find suitable space for the industries that would like to be on the Island.

COUNTY EMPLOYMENT FORECASTS

As stated in an earlier section, our employment forecasts for the region as a whole were based on our regional population estimates, which were converted into estimates of total labor force by making certain assumptions regarding the armed forces and unemployment. Based on a 19.1 million population forecast for 1975, total future regional employment was estimated in this manner at 7.7 million persons, a 23 percent gain above the 1955 estimate. These assumptions and estimates indicate an annual rate of employment gain in the next 20 years which is about the same as the average rate during the recent 1947-1955 period, a period which included Korea and the "rolling readjustment."

Several successive steps were taken to gain an approximate idea of the likely future distribution of employment among the 22 constituent counties of the region. It was recognized to begin with that some kinds of jobs are created in given localities largely to serve their residents and that other kinds of jobs occur in commercial or manufacturing industries whose markets go far beyond the vicinity of the plant. Accordingly, these two categories of employment were roughly separated and estimated individually. Of course, few industries are wholly in the one or the other class. It has been assumed, however, that the discrepancies would tend to offset each other.

We have designated as *dependent employment* the jobs in industries like retail trade and consumer services which largely serve the *resident* population. These jobs appear to be closely associated geographically with the location of the resident population. Conversely we refer to the other industries as *independent*.

As a first step, then, initial overall approximations were computed of dependent and independent employment for the region as a whole. Retail trade, construction and certain selected services were allocated to the dependent class. Agriculture, mining, manufacturing, wholesale trade, finance and related activities, and other selected services were designated as independent.

The 22 counties of the region next were divided into several significant sectors. For each of these sectors, the two employment groups were projected separately to 1975, dependent employment being derived from the sector population forecasts on hand. The resulting sector totals were then apportioned to the respective counties comprising the sectors. A first approximation of total employment for each county next was obtained as the sum of the dependent and independent employment forecasts.

Finally, those county totals were reviewed and revised in the light of recent employment trends, reasonable expectations, land availability and commutation implications.

Underlying the mathematical calculations which were used to distribute regional or sector totals among the constitutent counties was the initial assumption that past relationships would carry over into the future. It was necessary, therefore, to adjust the results to take account of any known factors which probably will change past relationships and trends. For example, it is most likely that the strongly growing northeastern New Jersey industrial belt may represent a new kind of inducement to firms making location decisions. It also might be assumed that even some *independent* industry will tend to follow in the wake of large population surges in certain outlying counties along with dependent enterprises. Special attention also was given to the unique position and function of New York City.

In view of recent industrial trends and certain locational advantages which appear to favor the New Jersey side of the Hudson River, it appears likely that a westerly shift in job patterns already evident will continue. A sizeable growth seems possible in northeastern New Jersey as part of a developing industrial complex stretching from Bergen County all the way south through Trenton, Morrisville and Philadelphia to Wilmington, Delaware.

After adjusting the inital computations to take these considerations roughly into account, it appears probable that in 1975 the nine New Jersey counties will have about 27.3 percent of the region's total employment. Their 1955 share was 22.5 percent. Employment in these New Jersey counties probably will increase about 50 percent from 1.4 million workers in 1955 to 2.1 million in 1975.

On Long Island, employment may increase from about 405,000 in 1955 to approximately 740,000 in 1975. This would increase Long Island's share of the region from 6.4 percent in 1955 to 9.6 in 1975. A less substantial increase appears likely in the counties of the northern sector.

Although New York City may gain an additional 100,000 jobs by 1975, the percent of regional employment located within the city probably will continue to decline. It may even fall from 61.2 percent in 1955 to as little as 50 percent in 1975.

Forecasts of employment for the 22 counties of the region are given in Table 27 page 42.

COUNTY SUMMARIES AND FORECASTS

Fairfield County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	418	504	555	800
Labor Force	197	229	240	335
Employed Labor Force (Employed Residents)	176	217	230	315
Employment (Jobs in County)	—	210	235	320
Number of Households	110	144	—	—
Average Household Size	3.8	3.5	—	—

Connecticut

LAND – 1954

(in square miles)

Total County Area	657.0
Total Land Area	633.0
Developed Land*	96.8
Recreation and Parkway Areas	6.8
Slopes Exceeding 10% in Grade	81.9
Swamps and Marshes	3.1
Open Land Suitable for Development**	444.4

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	3.9	3.9	3.8	3.8	3.7	3.7	3.7	3.6	3.6	3.5	3.4	3.4	3.3	3.2
Construction	5.0	5.0	5.2	5.9	9.8	10.9	12.9	11.6	15.1	15.5	16.3	14.8	15.9	17.9
Finance, Insurance and Real Estate	3.0	3.5	3.5	3.6	3.7	4.2	4.2	4.2	4.4	4.6	4.8	5.2	5.7	5.4
Manufacturing	127.6	140.0	123.5	94.8	111.9	113.0	105.6	83.6	97.2	102.7	113.0	116.2	106.4	110.2
Retail Trade	20.6	20.4	20.4	25.6	28.2	32.3	32.7	33.9	34.9	36.2	36.2	37.2	45.2	39.0
Services (Personal and Business)	26.0	25.3	25.0	27.4	27.0	27.7	28.8	28.8	29.0	29.2	30.7	30.4	31.3	31.7
Transport, Communications, Public Utilities	9.9	10.4	10.6	9.7	12.1	12.7	12.8	13.0	13.2	13.6	14.0	14.2	13.5	14.2
Wholesale Trade	1.8	1.9	2.1	2.9	3.5	3.9	4.0	3.7	4.1	4.3	4.4	4.4	4.4	4.8
Other	7.7	8.7	9.0	9.5	8.4	8.0	8.2	8.2	8.1	8.6	8.5	8.4	8.3	8.5
Total	205.6	219.3	203.0	183.3	208.5	216.5	212.8	190.4	209.5	218.0	231.0	234.0	234.0	235.0

The only Connecticut county within the New York metropolitan region, Fairfield County presents many diverse characteristics. It embodies the extremes of urban and suburban living. It contains some of New England's oldest employment centers and some of its newest "ex-urban" areas.

Underlying the diversity of the county are the general land features and the transportation facilities. As one moves from the northern shoreline of the Long Island Sound into what is roughly the northern half of the county, the slopes become generally steeper. Here the county is permeated with rocky soil and mountainous terrain. Indeed, the relatively rugged topography and the lack of a modern road system have limited intensive urbanization in this area of the county largely to the crossroads city of Danbury.

The strong attraction of Long Island Sound with its excellent and popular bathing and boating facilities, the passenger railroad pattern, and the employment centers along the Sound account for the large population concentration to the South.

The New England Thruway, currently under construction, will offer an important additional high-speed artery in the vicinity of the southern shoreline. In the future, however, other areas of the county may be much better served. Route 25 probably will be rebuilt as an expressway serving the whole easterly part of the county. Proposed upgrading and relocations of Route 6 running east-west, and Route 7 running north-south will bring a regional circumferential link into being between Port Jervis in Orange County, N. Y. and Norwalk, crossing the Hudson from Beacon to Newburgh.

A unique characteristic of Fairfield is the fact that while well-balanced within itself, it also relates closely to the New York area as well as the New Haven area, having commuter interchanges with both and in both directions.

By 1975 approximately 800,000 persons or 245,000 more than the 1955 population estimate of 555,000 may be residing in Fairfield.

Local industry has been the major economic support for the greater part of Fairfield's population in the past. It should continue to be an important determinant of future population increases along with a further growth of commuter families. Employment within Fairfield County increased during the post-war years from approximately 210,000 in 1946 to 235,000 in 1955 or about 15 percent.

Significantly, none of this increase has taken place in manufacturing employment which has fluctuated widely but amounted to 113,000 both in 1946 and 1955. Conversely, more than three-fourths of the increase in employment has taken place in construction, services and retail trades. These activities are more directly related to population growth.

The indications are that employment in the county may increase more slowly than population during the next two decades. An expected increase of about 35 percent would raise the 1955 employment estimate of 235,000 to some 320,000 jobs in 1975. If past trends hold, a major

part of this increase will be in non-manufacturing or consumer-oriented activities. These trends, however, might be revised if a change in current negative attitudes towards industrial location in many communities were to be induced by rising costs of municipal services.

Nor will employment growth likely be equally distributed to all municipalities in the county. The westerly part of Fairfield, oriented as it is towards New York City, probably will continue as a growing place of residence for commuters. The northern and eastern sections of the county, however, may experience a major share of the anticipated growth in employment opportunities as time goes on.

Bergen County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	410	539	655	1100
Labor Force	188	238	280	460
Employed Labor Force (Employed Residents)	166	230	270	445
Employment (Jobs in County)	—	149	199	400
Number of Households	110	157	—	—
Average Household Size	3.7	3.4	—	—

New Jersey

LAND – 1954

(in square miles)

Total County Area	243.0
Total Land Area	233.0
Developed Land*	76.6
Recreation and Parkway Areas	11.3
Slopes Exceeding 10% in Grade	26.3
Swamps and Marshes	16.9
Open Land Suitable for Development**	101.8

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2	2.2
Construction	5.2	4.0	3.2	3.7	7.9	9.0	11.9	11.2	14.0	16.5	15.6	14.7	16.4	17.6
Finance, Insurance and Real Estate	2.6	1.8	1.5	1.7	2.2	2.4	2.7	3.2	3.5	3.9	3.2	3.5	3.8	4.2
Manufacturing	49.4	79.5	79.6	46.6	52.4	55.7	59.6	58.6	65.2	76.2	85.1	92.1	83.4	89.8
Retail Trade	14.7	12.1	11.8	12.2	16.2	18.7	21.0	22.8	24.2	25.3	28.1	27.9	31.2	34.1
Services (Personal and Business)	15.2	14.3	15.4	13.6	15.1	15.6	16.4	16.8	17.7	19.0	18.9	19.2	20.1	22.1
Transport, Communications, Public Utilities	9.0	8.7	8.8	9.1	10.6	11.4	11.9	11.5	12.0	12.5	13.0	13.6	13.6	15.2
Wholesale Trade	1.3	0.8	1.0	1.3	1.9	2.1	2.5	2.7	2.8	3.1	3.6	3.8	4.5	5.6
Other	8.6	9.4	9.4	9.9	8.7	8.1	8.0	8.1	7.8	8.3	8.3	8.0	7.8	8.2
Total	108.3	132.9	132.8	100.2	117.2	125.1	136.1	137.0	149.5	167.0	178.0	185.0	183.0	199.0

Just across the George Washington Bridge from Manhattan, stretches one of the most attractive counties of the metropolitan region. Bergen County's growth after the completion of the George Washington Bridge and especially since the close of World War II is convincing proof.

Geographically, Bergen County's location is outstanding. A good part of the county is within reasonable commutation time from the major employment center of the region in Manhattan. Bergen's proximity to the central areas of Hudson, Essex and Passaic counties and its location adjacent to the New York State boundary to the north offer further advantages. Bergen also has a thriving industrial base of its own within the county.

The growth potential of Bergen County heightened by its accessibility to other parts of the metropolitan region, is further strengthened by the presence of favorable local land factors. Within the county is an abundant amount of unimproved flat land providing good topography for residential and industrial growth. Furthermore, the nature of the surface geology, the glacial drift so characteristic of the county, offers little obstacle to such growth.

Exceptional accessibility and developability will be further increased by anticipated expansion of the regional arterial highway system. Running in a north-south direction are several existing or proposed major arteries; the Palisades Interstate Parkway; the extensions of the Garden State Parkway and the New Jersey Turnpike; and at the extreme western part of the county, the proposed relocation of Route 202. All these arteries will connect with the New York State Thruway to the north. All three easterly express routes connect with the vast industrial areas of New Jersey to the south. Route 202 will provide Bergen with a strategic location along the principal regional circumferential route. By connecting with the Middlesex Freeway this route will by-pass the most congested parts of northeastern New Jersey for traffic bound for points to the south. Route 202 should assist materially in opening the more northwesterly portions of the county for industrial and residential development. Traffic headed in an east-west direction in the county will be expedited by the construction of the second deck of the George Washington Bridge and the Passaic-Bergen Expressway leading to and from the Bridge.

In view of the above considerations, the largest absolute population increase of any county in the region during the next twenty years may occur in Bergen. By 1975, some 1,100,000 persons probably will be living in the county. This is an increase of 445,000 persons and represents 68 percent more than the 1955 population, 655,000. By 1975 some 5.8 percent of the 19.1 million persons in the region may reside in Bergen, compared with the 1955

estimate of 4.3 percent. Approaching the year 1975, however, Bergen County may tend to reach its maximum absorption limit for population under the living standards that will then obtain. Indeed, with land desirable for development already beginning to run short in certain areas of Bergen, there now is considerable pressure to reclaim low lands.

Equally impressive has been the recent growth of local employment. Within the ten post-war years, the share of total regional employment located within the boundaries of Bergen increased from 2.1 percent to 3.2. This growth from 117,000 in 1946 to 200,000 in 1955 has been evident in all of the major industrial groups.

Most of the increase registered in manufacturing occurred in enterprises producing durable goods. The huge Ford plant at Mahwah and the industrial terminals at Teterboro, South Hackensack and Fairlawn are examples. Retail trade and service jobs have kept pace with the population growth of the county. The opening in Bergen of several branch department stores and two major shopping centers is indicative of this growth.

The very factors which collectively assure a substantial future population growth should have an even greater impact on future employment trends in Bergen. A job increase of 100 percent is forecast by 1975.

Essex County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	837	906	950	1100
Labor Force	392	420	425	485
Employed Labor Force (Employed Residents)	332	395	405	455
Employment (Jobs in County)	—	380	366	415
Number of Households	222	257	—	—
Average Household Size	3.8	3.5	—	—

New Jersey

LAND – 1954

(in square miles)

Total County Area	132.0
Total Land Area	128.0
Developed Land*	65.4
Recreation and Parkway Areas	11.1
Slopes Exceeding 10% in Grade	3.3
Swamps and Marshes	11.2
Open Land Suitable for Development**	37.0

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.5	1.5
Construction	13.4	9.4	7.1	8.7	14.8	16.8	17.6	16.3	18.0	20.3	19.8	16.4	15.4	16.6
Finance, Insurance and Real Estate	30.7	25.3	23.3	22.4	26.0	27.7	29.3	29.4	29.7	29.4	28.9	29.3	28.9	27.8
Manufacturing	152.4	195.4	175.1	134.6	144.4	140.3	138.1	130.7	142.9	148.2	146.0	150.0	132.5	131.8
Retail Trade	62.3	56.0	54.8	54.9	60.5	62.8	64.9	65.0	65.7	66.7	66.0	66.6	66.7	67.1
Services (Personal and Business)	54.1	50.5	49.3	48.4	53.8	55.1	56.8	57.1	59.0	59.9	59.1	59.4	57.0	57.2
Transport, Communications, Public Utilities	31.7	31.0	30.5	29.2	34.0	34.9	36.5	34.2	35.0	36.6	36.2	37.6	36.2	36.2
Wholesale Trade	9.9	9.5	9.6	10.4	13.5	14.9	15.2	14.6	14.3	15.2	14.9	15.3	15.4	15.1
Other	19.0	20.0	19.6	19.9	17.1	15.6	15.2	14.7	14.0	14.3	13.7	12.9	12.4	12.7
Total	374.9	398.4	370.6	330.0	365.5	369.6	375.0	363.3	380.0	392.0	386.0	389.0	366.0	366.0

Until the recent surge of population growth in Nassau County, Long Island, the most populous county in the metropolitan region outside New York City was Essex County. Its growth during the first half of this century had been centered in part on the City of Newark and in part resulted from the county's proximity to New York City.

Until about 1965, population growth in Essex County probably will continue the 1940-55 rate. But during the following 10-year period the readily developable land is likely to become fully utilized. Thereafter, a decreasing rate of growth may result. By 1975 we may expect a total population of about 1,100,000 persons in Essex County, an absolute increase of 150,000 persons. This would be 16 percent above the 1955 estimate of 950,000 persons.

The eastern portion of Essex lies in close proximity to the Newark-Elizabeth industrial complex. It is thoroughly developed. The mature cities of the county appear to have a relatively stable population. It is likely that even a vigorous program of redevelopment may not do more than balance a tendency toward declining population levels in such places.

To the west, however, especially in the Caldwells, Livingston and Millburn with their lower population densities, higher incomes and newer developments, there probably will be room until around 1970 to absorb future population growth.

As a major sub-center of the region (along with Brooklyn), Essex County has always been well served by rail and road. The city of Newark in particular has been the hub of a very large population and employment concentration. Further highway construction should increase the accessibility of Essex to other areas within and beyond the region. The New Jersey Turnpike, the Garden State Parkway and improved east-west routes will give added impetus to commercial and industrial development in all sections of the county and to residential development to the west.

Employment in Essex County has shown a remarkable stability during the post-war period. Jobs have fluctuated but slightly, between 363,000 and 392,000. It appears likely that employment in Essex County may rise somewhat from the estimated 1955 level of 365,000 to approximately 415,000 in 1975.

Significantly, if the anticipated faster growth of population than employment occurs, a larger proportion of future Essex County residents may have to be employed in other counties than is now the case. Further, a larger part of the local tax bill in many Essex municipalities may have to be borne by residential properties when this happens.

Hudson County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	652	647	645	600
Labor Force	315	305	295	270
Employed Labor Force (Employed Residents)	260	283	275	250
Employment (Jobs in County)	—	252	247	270
Number of Households	173	188	—	—
Average Household Size	3.8	3.4	—	—

New Jersey

LAND – 1954

(in square miles)

Total County Area	63.0
Total Land Area	45.0
Developed Land*	25.9
Recreation and Parkway Areas	0.9
Slopes Exceeding 10% in Grade	0.4
Swamps and Marshes	10.8
Open Land Suitable for Development**	7.1

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.7	0.7	0.7	0.7	0.7
Construction	15.9	6.8	4.9	5.2	8.8	8.0	9.3	7.5	8.3	9.0	8.8	8.7	7.6	8.8
Finance, Insurance and Real Estate	8.1	7.0	6.2	6.0	6.6	6.7	6.7	6.4	6.5	6.6	6.0	6.3	6.3	6.5
Manufacturing	218.4	235.6	222.6	159.0	169.2	143.9	148.3	123.7	133.8	139.4	141.8	141.0	127.4	132.6
Retail Trade	27.8	26.1	26.0	25.6	27.4	30.5	32.4	32.0	32.9	33.6	32.2	32.3	30.9	30.4
Services (Personal and Business)	25.9	23.5	22.2	20.2	21.6	22.0	22.8	22.0	22.9	22.8	21.4	21.3	18.3	19.5
Transport, Communications, Public Utilities	24.6	26.4	26.1	25.6	25.3	31.8	28.4	27.0	27.8	31.6	32.2	31.3	30.3	30.8
Wholesale Trade	6.9	6.1	5.9	5.4	6.5	7.6	7.9	8.1	8.6	7.9	7.8	8.8	8.3	8.4
Other	12.8	14.0	13.7	13.9	12.1	11.0	10.8	10.6	10.2	10.4	10.1	9.6	9.2	9.3
Total	341.0	346.0	328.3	261.4	278.2	262.5	267.3	238.0	251.6	262.0	261.0	260.0	239.0	247.0

Like several other core area counties, Hudson probably has passed its population peak. Since 1930 when 691,000 persons resided in Hudson, there has been a decline of some 45,000 inhabitants according to recent estimates. High existing densities and the prevalence of housing no longer up to competitive standards abet such a population decline.

The 1975 population forecast of 600,000 persons expresses the probability of a further 7 percent decline from the 1955 estimate of 645,000 persons. There is very little vacant land in the county suitable for new residential construction. Necessarily, therefore, as buildings outlive any economic usefulness, redevelopment programs and future housing policy in the county will be the determinants of population levels. Both the obsolescence of the housing stock and the declining number of persons per household will tend to reduce the number of inhabitants. Even a vigorous redevelopment program may not be able to reverse the downward trend. While perhaps inducing some families to remain within the county boundaries, such a program is not likely to offset the growing preference of many new families to live in more countrylike suburban surroundings.

Yet Hudson County has certain great advantages. Across the Hudson River from the lower half of Manhattan and extending to Staten Island, Hudson's central location should continue to be a strong attraction to many people and to industries. Its extensive network of highways, including the recently completed spur of the New Jersey Turnpike, as well as its excellent rail facilities offer exceptional service. From the beginning, potentially excellent port facilities accounted for much of the early settlement and growth of Hudson County. These still are there, waiting to be exploited to their maximum, perhaps by the Port Authority in cooperation with municipal agencies.

In spite of the county's ideal location as well as its considerable transportation and port facilities, Hudson has not been able to maintain its post-war employment level. Declines have occurred not alone in most of the manufacturing groups but in services and other consumer-oriented enterprises as well. Thus the post-war years show the county lagging behind the general development of the environs.

The 1975 employment forecast of 270,000 suggests an increase of 10 percent above the 1955 estimate, 245,000. In contrast to the anticipation of continued declines in population, it is our assumption that the people of the county will make the most of its real locational advantages for industry.

Middlesex County

New Jersey

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	217	265	335	700
Labor Force	103	119	145	295
Employed Labor Force (Employed Residents)	87	114	140	280
Employment (Jobs in County)	—	108	115	235
Number of Households	54	73	—	—
Average Household Size	4.0	3.6	—	—

LAND – 1954
(in square miles)

Total County Area	318.0
Total Land Area	312.0
Developed Land*	59.0
Recreation and Parkway Areas	5.5
Slopes Exceeding 10% in Grade	2.6
Swamps and Marshes	9.2
Open Land Suitable for Development**	235.7

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	2.4	2.4	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3	2.2	2.3	2.3	2.3
Construction	5.3	2.7	2.6	2.3	4.5	6.0	6.4	5.8	7.3	9.5	6.5	7.1	6.4	6.9
Finance, Insurance and Real Estate	0.8	0.9	0.7	0.8	0.8	0.9	1.1	1.2	1.4	1.5	1.5	1.8	1.9	1.3
Manufacturing	56.5	58.3	56.0	45.6	51.9	56.2	57.7	54.3	62.4	62.6	62.0	67.2	62.2	64.9
Retail Trade	8.3	7.9	7.7	8.1	10.0	10.7	11.7	12.4	13.4	14.3	15.5	15.9	16.4	16.5
Services (Personal and Business)	5.9	5.5	5.9	6.0	7.0	7.1	6.8	6.7	6.9	7.1	6.8	6.9	7.3	7.4
Transport, Communications, Public Utilities	4.9	5.2	5.2	5.3	5.8	6.3	6.9	7.0	7.4	7.8	7.4	8.6	8.3	8.4
Wholesale Trade	1.5	1.8	1.7	1.7	2.0	2.1	2.3	2.2	2.4	2.5	2.6	2.8	2.9	2.8
Other	4.2	4.6	4.7	5.0	4.5	4.1	4.2	4.3	4.2	4.4	4.5	4.4	4.3	4.5
Total	89.8	89.3	86.8	77.2	88.9	95.8	99.5	96.3	107.8	112.0	109.0	117.0	112.0	115.0

Middlesex County contains a vast amount of flat land well suited for both residential and industrial development. Yet its location in the region's outer ring has prevented the county in past years from growing any faster than the environs generally. Because of a new industrial axis shaping up between New York, Trenton and Philadelphia, however, Middlesex may be entering a new phase of its development.

Adequate rail facilities always have served the county. But until recently the paucity of good roads has been a handicap. New highways are changing the picture.

The New Jersey Turnpike crosses the county from northeast to southwest; the Garden State Parkway runs north-south across the eastern portion of the county and a future branch to the southwest is in prospect. The proposed Middlesex Freeway, part of a major regional circumferential express artery, will cut east-west across the north and will greatly increase the labor pool available to Middlesex industries; a new express route to Sandy Hook will lead toward the southeast; and the Narrows Bridge Crossing and associated expressways will lead into Middlesex at Perth Amboy as well as via Elizabeth in Union County. Thus, while still part of the outer ring, Middlesex soon will have some of the locational features of the inner-ring counties.

Middlesex already is feeling the effects of the two new major highway arteries: industrial growth on one hand, a residential "boomlet" on the other. Indeed, by 1975 the population of Middlesex may be more than twice the 1955 estimate, 335,000 persons. This would make the county the second largest in both absolute and percentage growth in the New Jersey portion of the region.

The proximity of the county to closely built-up parts of the region makes this area particularly subject to the population pressures which will increase as residential neighbors in the inner ring to the north saturate their land. Moreover, much of the northerly part of the county is within reasonable commuting time of Manhattan. A major portion, perhaps two thirds, of the expected 365,000 population addition is most likely to locate north of the Raritan River unless future zoning changes there cause a wider spreading.

Employment opportunities in all categories in Middlesex County expanded gradually in the post-war years, even topping war-time peaks. Total employment increased from approximately 90,000 in 1946 to 115,000 in 1955. Since 1900 almost half the growth in manufacturing jobs occurred after the start of World War II. By 1955 approximately 65,000 persons were employed in manufacturing enterprises in the county. Employment in retail trade also has increased greatly. It rose from 10,000 in 1946 to 16,500 in 1955. Moderate increases have been reported for the other employment categories.

Favorable circumstances should lead to continued growth of employment opportunities. The several bodies of water—Raritan Bay, Raritan River, and Arthur Kills—offer special advantages to certain industrial activities. The proximity of Middlesex to important new industrial developments focusing on the new steel works along the Delaware River to the west should encourage the continued southward extension of the New York region's industry along Middlesex County's rail and highway system.

Monmouth County

New Jersey

POPULATION, EMPLOYMENT AND HOUSEHOLDS 1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	161	225	280	600
Labor Force	70	98	115	250
Employed Labor Force (Employed Residents)	59	85	95	220
Employment (Jobs in County)	—	62	70	135
Number of Households	44	64	—	—
Average Household Size	3.7	3.5	—	—

LAND – 1954

(in square miles)

Total County Area	487.0
Total Land Area	477.0
Developed Land*	64.2
Recreation and Parkway Areas	2.5
Slopes Exceeding 10% in Grade	17.1
Swamps and Marshes	9.6
Open Land Suitable for Development**	383.6

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	5.2	5.3	5.4	5.4	5.5	5.6	5.6	5.7	5.7	5.8	5.7	5.8	5.9	6.0
Construction	2.3	2.2	2.3	1.9	3.5	3.4	3.9	3.5	4.0	4.8	4.7	5.9	5.1	5.2
Finance, Insurance and Real Estate	1.1	0.9	1.1	0.9	1.3	1.5	1.5	1.3	1.5	1.4	1.5	1.6	2.1	2.3
Manufacturing	10.6	10.1	10.4	8.6	11.7	11.6	11.5	12.2	12.7	13.1	13.5	13.8	13.1	13.3
Retail Trade	10.5	9.1	9.7	9.9	12.0	12.7	13.7	13.4	14.7	15.1	14.8	16.6	16.4	17.5
Services (Personal and Business)	12.1	11.5	11.7	11.0	12.6	13.9	13.3	12.4	13.1	13.2	12.6	14.3	14.8	15.0
Transport, Communications, Public Utilities	5.7	4.8	4.8	4.8	5.5	5.7	6.0	5.9	5.9	6.2	5.9	6.6	6.2	6.3
Wholesale Trade	0.9	0.6	0.7	0.7	0.9	1.0	1.0	0.9	1.1	1.3	1.2	1.3	1.3	1.3
Other	3.5	3.7	3.8	3.9	3.4	3.1	3.1	3.1	3.0	3.1	3.1	3.1	3.1	3.1
Total	52.0	48.1	49.9	47.1	56.2	58.4	59.7	58.4	61.9	64.0	63.0	69.0	68.0	70.0

The largest New Jersey county in area within the metropolitan region is Monmouth. Located in the southern corner of the region's outer ring, and separated by water and by distance from the central city, Monmouth has had but slow population growth in the past.

Present rail facilities still limit the commuting accessibility of all but the extreme northern part of the county to Manhattan at the heart of the region. Recent improvements in the regional limited-access highway system—notably the Garden State Parkway—however, provide direct high-speed links to the industrial corridor of northeastern New Jersey.

Mommouth County has great stretches of open land, highly suitable for residential development. In addition, all the land of the county consists of alluvial deposits: sandy, well-drained, gently rolling terrain. Similar to Nassau and Suffolk, this is the best land available for building. Fronting the Atlantic Ocean, Monmouth's excellent beaches exert a strong attraction to families seeking residential locations in the outer ring of the region.

The 1975 population forecast of 600,000 persons would more than double the 1955 county population estimated at 280,000 persons. This rapid growth is the largest percent increase anticipated for any New Jersey county. The increased accessibility already evident has resulted in a small boom in residential construction. As vacant land within the inner-ring counties disappears during the next twenty years, population pressures on Monmouth should increase substantially.

Although the county has a very large potential for population growth, this probably is not equally true of industrial growth. A significant part of the added resident employables therefor may have to find employment in the expanding industrial belt to the west and north. This kind of unbalanced growth between resident population and jobs may affect municipal tax problems in some Monmouth communities as time progresses. In fact the potential imbalance may either tend to inhibit residential growth in the long run or to bring about a positive effort to promote economic development in Monmouth beyond the "natural" trend noted in this bulletin.

Employment in Monmouth increased from 56,000 in 1946 to 70,000 in 1955. Half the increase, however, occurred in the retail trades and services, activities which are oriented towards the local resident consumer. Manufacturing employment in 1955 totaled only 13,000, an evidence of the remoteness of Monmouth from the region's industrial concentrations. An expected increase of approximately 65,000 jobs during the next twenty years would raise the county employment level to 135,000.

Some unique county population characteristics are worthy of note for the light they may throw on trends. The restful resort areas along the Atlantic Coast make the shore area particularly attractive to elderly persons. Monmouth County's age distribution indicates an unusually high proportion of old and retired persons, some living on pensions and other small incomes. This leads to lower-than-average family incomes, as well as low labor force participation rates. Other significant characteristics are the high percentage of land in institutional hands and the relatively high proportion of the resident population in the armed forces because of large military installations in Monmouth.

Morris County

New Jersey

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	126	164	200	400
Labor Force	52	66	75	165
Employed Labor Force (Employed Residents)	46	64	75	160
Employment (Jobs in County)	—	42	53	120
Number of Households	32	44	—	—
Average Household Size	4.0	3.7	—	—

LAND – 1954
(in square miles)

Total County Area	478.0
Total Land Area	468.0
Developed Land*	56.4
Recreation and Parkway Areas	12.1
Slopes Exceeding 10% in Grade	95.7
Swamps and Marshes	17.1
Open Land Suitable for Development**	286.7

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	2.4	2.3	2.3	2.3	2.2	2.2	2.2	2.2	2.1	2.1	2.0	1.9	1.9	1.9
Construction	1.1	1.0	0.7	1.9	2.4	2.4	3.2	2.4	3.0	4.1	4.3	4.4	4.1	3.8
Finance, Insurance and Real Estate	0.6	0.5	0.4	0.3	0.5	0.7	0.7	0.6	0.7	0.9	0.8	1.0	1.1	1.3
Manufacturing	10.2	14.9	11.0	9.2	11.1	12.0	13.0	11.7	13.2	14.5	16.4	17.9	17.8	18.0
Retail Trade	4.8	4.4	4.4	4.6	6.5	7.0	7.4	8.2	8.7	9.2	9.2	10.1	10.3	11.1
Services (Personal and Business)	6.4	5.9	5.8	5.7	6.1	6.8	7.0	6.3	6.5	7.2	6.5	6.7	7.0	7.9
Transport, Communications, Public Utilities	2.6	2.8	2.8	2.9	3.4	3.4	3.6	4.0	4.0	3.7	4.2	4.4	4.4	4.2
Wholesale Trade	0.3	0.2	0.2	0.2	0.3	0.4	0.5	0.5	0.4	0.4	0.6	0.6	0.7	0.7
Other	3.3	3.7	3.6	3.8	3.6	3.5	3.7	3.8	3.7	3.9	4.0	4.0	3.7	4.1
Total	31.6	35.7	31.2	30.9	36.1	38.4	41.1	39.7	42.1	46.0	48.0	51.0	51.0	53.0

Morris County is one of New Jersey's outer-ring counties. Because its major portions extend well beyond the popular commuting range of New York City, Morris like the other outer-ring counties has not yet had the extreme population pressures felt closer in. As Bergen, Essex and Union fill up, however, development pressures on Morris County appear likely to increase very greatly.

Many characteristics of Morris County will induce population growth. The topography it is true is extremely varied, ranging from extensive swamp areas in the east to the rugged Fox Hill Range in the west. Indeed, a good deal of Morris is quite mountainous and hilly. Nevertheless, there also is a very large amount of quite buildable land less than 10 percent in slope. It lies particularly in the easterly parts of the county.

The geological and sub-soil conditions—major factors affecting the intensity of development—are similarly varied. The terminal moraine, the stopping point of the northern glacier, runs roughly east-west through the center of the county. South of this line the land is considerably more favorable for extensive building. To the north there is rock at or near the surface. Two new east-west highway routes will have a significant effect on Morris County. The Bergen-Passaic Expressway and Route 24 when rebuilt will link Morris County more closely with the emerging New Jersey industrial belt to the east and with New York City. In the north-south direction, the projected 202 expressway will be part of a regional circumferential route by-passing the congested parts of northeastern New Jersey. These arterial highway links will enhance the accessibility of the eastern half of the county to job opportunities in all directions.

By 1975 some 400,000 persons, or twice the 1955 population estimate, probably will reside in Morris County.

During the past decade, Morris has steadily increased its local employment. From 36,000 jobs in 1946, this rose to approximately 55,000 in 1955. Manufacturing employment increased from 11,000 in 1946 to 18,000 in 1955. Retail trade employment rose from 7,000 to 11,000. The latter two industrial groups together accounted for half the post-war gain.

There is no indication, however, that the county will become such a major employment center in the near future as to be part of the New Jersey industrial belt. Our forecasts suggest an increase of 65,000 jobs by 1975. This would raise the county employment from 55,000 in 1955 to approximately 120,000 in 1975. An increasing portion of the county's future resident labor force, however, may have to commute outside the county to major employment centers in New York City and elsewhere in New Jersey.

Passaic County

New Jersey

POPULATION, EMPLOYMENT AND HOUSEHOLDS 1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	309	337	375	460
Labor Force	153	164	175	210
Employed Labor Force (Employed Residents)	130	156	170	200
Employment (Jobs in County)	—	147	149	165
Number of Households	84	101	—	—
Average Household Size	3.7	3.3	—	—

LAND – 1954

(in square miles)

Total County Area	202.0
Total Land Area	194.0
Developed Land*	34.9
Recreation and Parkway Areas	41.6
Slopes Exceeding 10% in Grade	51.7
Swamps and Marshes	4.4
Open Land Suitable for Development**	61.5

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	1.2	1.2	1.1	1.1	1.1	1.1	1.0	1.0	1.0	1.0	0.9	0.9	0.9	0.9
Construction	5.7	3.2	2.6	2.8	5.6	5.2	6.2	6.3	6.9	6.9	6.4	6.2	6.9	7.3
Finance, Insurance and Real Estate	2.6	2.5	2.3	2.3	2.9	2.7	3.0	3.3	3.3	3.6	3.6	3.6	3.7	4.0
Manufacturing	115.0	97.7	89.1	70.4	81.5	78.0	81.5	74.5	81.2	75.4	78.6	75.4	72.0	75.0
Retail Trade	18.8	16.3	15.4	15.5	17.6	18.6	20.0	20.4	21.2	21.4	21.6	24.6	23.0	23.9
Services (Personal and Business)	15.5	13.2	12.8	12.7	13.8	13.7	14.6	14.9	15.4	15.7	15.5	15.6	16.0	18.1
Transport, Communications, Public Utilities	8.6	8.8	8.6	8.5	9.0	9.8	9.8	9.3	9.7	9.4	9.9	11.2	10.2	11.0
Wholesale Trade	2.3	2.0	2.0	2.2	2.7	2.9	3.2	3.2	3.3	3.5	3.4	3.6	3.5	3.8
Other	4.9	5.6	5.8	6.1	5.4	4.9	4.9	4.9	4.8	5.1	5.1	4.9	4.8	5.0
Total	174.7	150.5	139.6	121.4	139.5	137.0	144.2	137.8	146.7	142.0	145.0	146.0	141.0	149.0

Passaic County comprises two distinct geographic areas. For statistical purposes we have listed Passaic as an inner-ring county. Its populous southerly portion clearly requires this designation. The upper part, however, retains the rural fringe qualities of the outer-ring counties.

With favorable land conditions, numerous rail and road facilities and two old and established employment centers, lower Passaic has experienced a steady population growth in recent years.

This area will be even better served with arterial highways in the future, however, with the construction of the Passaic-Bergen Expressway originating at the George Washington Bridge and the creation of a north-south expressway as a relocation of Route 202. In addition, improved arterial connections with the Newark area appear likely. Within lower Passaic, therefore, the remaining developable vacant land probably will become saturated soon after 1965 and will absorb nearly all the population pressures anticipated for the county.

Above and beyond the neck of the county at Pompton Lakes lies upper Passaic. Embracing more than half the county's total land area, upper Passaic is blanketed with extremely rugged topography consisting largely of rock at or near the surface.

Transportation facilities there are distinctly limited. At present, no up-to-date arterial highway enters the area. Major improvements in accessibility appear unlikely. Thus, with only 5 percent of the current estimated population of the county, upper Passaic probably will remain sparsely developed.

By 1975, approximately 460,000 persons may reside in Passaic County, an increase of 85,000 persons or 23 percent above the 1955 estimate of 375,000 inhabitants. Almost all the anticipated population growth probably will take place in the remaining developable vacant land of lower Passaic—principally in Wayne Township and the contiguous municipalities to its south. The older areas of lower Passaic, the Passaic-Paterson urban complex, should remain relatively static. The growth of their few remaining vacant tracts may just about offset the housing obsolence and concurrent population declines of the oldest central parts of Paterson and the City of Passaic.

Total employment in Passaic County remained relatively stable during the post-war decade, fluctuating within a range of 140,000 to 150,000 persons. Services and retail trade employment increased slightly in response to the general growth of population in the vicinity. It is interesting to note, however, that no major New York or Newark department store has opened a branch anywhere in Passaic County in recent years.

The small increase in employment projected for Passaic County (15,000 added jobs) suggests a virtual stabilization in Passaic's industrial employment.

Somerset County — *New Jersey*

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	74	99	115	225
Labor Force	32	42	45	90
Employed Labor Force (Employed Residents)	28	41	45	85
Employment (Jobs in County)	—	30	33	60
Number of Households	18	26	—	—
Average Household Size	4.0	3.8	—	—

LAND – 1954
(in square miles)

Total County Area	307.0
Total Land Area	307.0
Developed Land*	29.2
Recreation and Parkway Areas	0.6
Slopes Exceeding 10% in Grade	23.9
Swamps and Marshes	0.7
Open Land Suitable for Development**	252.5

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	2.1	2.0	2.0	2.0	2.0	2.0	2.0	2.0	1.9	1.9	1.8	1.8	1.7	1.8
Construction	7.2	0.7	0.7	1.2	2.0	2.0	2.0	1.8	2.3	1.9	1.7	2.3	2.1	2.4
Finance, Insurance and Real Estate	0.1	0.1	0.1	0.1	0.3	0.3	0.3	0.2	0.3	0.3	0.3	0.3	0.4	0.4
Manufacturing	14.1	16.3	15.5	14.5	14.9	18.3	17.7	15.3	14.7	15.1	14.5	15.3	13.8	14.6
Retail Trade	2.5	2.3	2.2	2.5	3.1	3.4	3.7	4.0	3.8	3.9	4.0	4.9	5.0	5.3
Services (Personal and Business)	3.4	3.0	2.5	2.4	2.7	2.8	3.3	3.0	3.0	3.0	2.9	3.3	3.0	3.6
Transport, Communications, Public Utilities	1.5	1.4	1.4	1.4	1.5	1.6	1.7	1.6	1.7	1.7	1.6	2.0	2.1	2.0
Wholesale Trade	0.2	0.2	0.1	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	1.1	0.9	0.9
Other	1.6	1.8	1.7	1.8	1.7	1.7	1.8	1.9	1.8	1.9	1.9	2.0	2.0	2.0
Total	32.7	27.8	26.3	26.1	28.4	32.2	32.6	29.9	29.7	30.0	29.0	33.0	31.0	33.0

The relative remoteness of Somerset County from the core of the metropolitan region has tended to offset the county's positive developmental factors which otherwise might have caused rapid population growth. Located in the outer ring, Somerset is the least populous of the nine New Jersey counties of the region.

Somerset County has quite a varied range of topographical conditions. Much of the county consists of broad and extensive flat lands. The Watchung Mountains form a distinct barrier across the east central area, however. These mountains in the past have restricted intensive development to a small strip at the easterly foot of the mountain range itself. Past population pressures were not sufficient to surmount the barrier. During the next twenty years, however, a change is expected.

The remoteness of Somerset has resulted mainly from limitations in the highway system. No major limited-access highway now serves the county. Of the proposed regional arterial highways, however, a projected Garden State Parkway Branch and Route 22 rebuilt on a new alignment will provide expressway links between Somerset and the heart of the region. They also will afford good access between Somerset and the rapidly expanding industrial areas to the south and west in the developing region along the Delaware River. The proposed Middlesex Freeway and Route 202 are links in the circumferential route intended to encircle the core areas of the region. These routes will provide freer movement among the outer-ring counties.

Our population forecasts suggest an increase of approximately 95 percent in Somerset during the next 20 years. If this occurs, the 1955 population estimated at about 115,000 will rise to some 225,000 by 1975.

During the post-war years total employment in Somerset has been relatively stable. A nominal increase has occurred in retail trades and services, activities associated with population growth. Manufacturing employment apparently has not changed during the 10-year period.

Most of the industrial development has occurred along the several rail lines connecting the county with the central industrial districts of the region. With the general expansion of industry southward towards Morrisville, Trenton and Philadelphia, further growth can be anticipated along the transport corridors. An anticipated employment gain of some 70 percent may raise the current employment level of 35,000 to about 60,000 persons in 1975. This additional 25,000 persons working in the county, however, will be far less than the jobs required to create an "average" suburban balance between resident population and local employment opportunities. The more vigorous population growth which we expect is based on the belief that the county will be especially attractive as a convenient and pleasant residential area for an increasing number of persons working elsewhere, some in all likelihood as far away as Manhattan.

Union County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	328	398	450	640
Labor Force	150	181	195	280
Employed Labor Force (Employed Residents)	134	174	190	270
Employment (Jobs in County)	—	152	178	300
Number of Households	85	112	—	—
Average Household Size	3.9	3.5	—	—

LAND – 1954

(in square miles)

Total County Area	105.0
Total Land Area	103.0
Developed Land*	49.6
Recreation and Parkway Areas	9.6
Slopes Exceeding 10% in Grade	1.6
Swamps and Marshes	4.0
Open Land Suitable for Development**	38.2

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.1
Construction	5.6	2.7	3.3	5.1	6.4	8.7	10.0	7.7	8.7	10.7	9.6	9.1	8.8	11.0
Finance, Insurance and Real Estate	2.0	2.0	1.8	1.7	1.9	2.0	2.0	2.3	2.5	2.5	2.9	3.8	4.1	5.1
Manufacturing	71.7	83.3	85.5	54.2	69.7	70.9	70.6	59.9	77.8	83.4	81.2	86.9	82.2	87.5
Retail Trade	16.3	15.2	14.3	15.1	18.7	19.3	20.8	21.5	22.2	23.6	24.2	25.6	27.1	29.0
Services (Personal and Business)	20.8	19.2	18.2	17.7	18.4	18.6	18.8	17.8	19.8	21.0	20.3	22.4	21.4	21.1
Transport, Communications, Public Utilities	8.1	8.2	8.3	8.5	10.2	11.1	10.8	11.8	10.1	10.6	11.1	11.5	11.6	11.8
Wholesale Trade	1.7	2.4	2.9	2.6	2.4	2.8	3.2	3.1	3.5	4.0	4.5	3.8	4.9	5.4
Other	6.1	6.8	6.9	7.2	6.3	5.9	6.0	5.7	5.7	6.0	6.0	5.7	5.7	6.0
Total	133.4	141.1	142.2	113.5	135.1	140.2	143.3	131.2	151.7	163.0	161.0	170.0	167.0	178.0

Many factors account for the growth of Union County in the past. Favorable topography has played a key role. Of major significance, too, is the geographic position of the county. It is accessible to the Port of New York and to nearby urban concentrations in Hudson and Essex counties. Exceptional rail, waterfront and road facilities have enabled a full exploitation of Union's favorable location.

According to our forecasts, the future rate of the county's growth probably will be approximately the same as the rate experienced since 1940. However, as is generally true of the inner-ring counties, this rate should decrease towards the end of the 20-year period as the county's maximum population absorption capacity is approached. A population of some 640,000 persons by 1975 is forecast for Union County. This would be an increase of 190,000 persons or 42 percent above the 1955 estimated population of 450,000.

The growth of the metropolitan highway system will continue to have a significant impact on Union County. The New Jersey Turnpike and the Garden State Parkway already run north-south through the eastern part of the county. The proposed expressway Routes 22 and 24 as well as a projected new branch of the Garden State Parkway should increase the relative accessibility of the western sections of Union County. Proposed expressways traversing Staten Island and Brooklyn will connect Elizabeth and the New Jersey Turnpike with Long Island via the Narrows Bridge crossing. When this occurs, Union County will be even more of a regional transport hub than at present.

In contrast to the more stable employment situation in the neighboring urban counties of Essex and Hudson, employment in Union County has continued to grow throughout the post-war years. The existence of an established industrial base in the Elizabeth-Linden-Rahway area and the proximity of the county to New York City and other nearby employment centers in Essex and Hudson offer strong inducement to industrial growth at Union. Many industries seeking to avoid urban congestion in the core area appear to have found in Union County large amounts of suitable space for industrial development.

Indeed, total employment in Union rose from 135,000 in 1946 to 180,000 in 1955, an increase of 45,000 persons or 33 percent. This growth has been greatest in the manufacturing and retail industry classifications. Manufacturing employment increased from 70,000 in 1946 to just under 90,000 in 1955, most of the gain occurring in durable goods producing enterprises. At the same time there was an increase of 35 percent in retail jobs. Employment rose also in services, wholesale trades and construction activities in the county.

From the evidence available it appears that Union County will continue its trend of substantial employment growth. During the next two decades, employment may increase from the 1955 estimate of 180,000 to 300,000 in 1975, an increase of over 65 percent.

Fortunately for municipal finances in Union County, employment opportunities are expected to increase faster than population growth. During the next two decades, Union actually may become a daily net importer of workers from other counties.

Dutchess County

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	121	137	165	270
Labor Force	47	54	65	110
Employed Labor Force (Employed Residents)	41	53	62	105
Employment (Jobs in County)	—	56	63	115
Number of Households	28	35	—	—
Average Household Size	4.2	3.9	—	—

LAND – 1954
(in square miles)

Total County Area	834.0
Total Land Area	816.0
Developed Land*	43.3
Recreation and Parkway Areas	0.6
Slopes Exceeding 10% in Grade	211.6
Swamps and Marshes	2.2
Open Land Suitable for Development**	558.4

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955 (Dutchess-Putnam)
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	4.7	4.7	4.4	4.4	4.3	4.3	4.2	4.2	4.1	4.2	4.0	3.9	3.8	3.8
Construction	1.7	1.1	1.0	1.2	2.3	3.1	2.8	3.0	3.4	3.6	3.3	3.4	3.5	4.0
Finance, Insurance and Real Estate	0.9	0.8	0.7	0.9	0.9	1.0	1.1	1.0	1.0	1.0	1.0	1.2	1.4	1.4
Manufacturing	15.3	16.1	15.4	13.9	15.0	15.4	15.7	15.6	16.8	18.7	21.0	22.2	21.9	22.8
Retail Trade	5.0	4.9	5.0	5.7	6.9	7.8	8.4	8.9	9.0	8.9	8.6	9.1	8.8	9.6
Services (Personal and Business)	13.7	12.6	12.8	11.9	13.0	14.1	14.4	14.4	14.9	14.3	12.9	12.8	12.4	13.7
Transport, Communications, Public Utilities	2.8	2.8	2.8	3.0	3.4	3.5	3.6	3.5	3.7	3.6	3.5	3.8	3.5	4.0
Wholesale Trade	0.3	0.3	0.4	0.4	0.5	0.6	0.6	0.6	0.6	0.6	0.7	0.7	0.8	0.8
Other	2.8	3.2	3.0	3.2	3.0	2.8	2.9	2.8	2.8	3.1	3.0	2.9	2.9	2.9
Total	47.3	46.3	45.6	44.6	49.4	52.5	53.8	54.0	56.4	58.0	58.0	60.0	59.0	63.0

Dutchess County, the northernmost county of the metropolitan region, is expected to reach 270,000 persons in 1975. This would be a population increase of 105,000 persons above the 1955 estimate of 165,000 persons. Dutchess is the region's third largest county in land area. While a good proportion of the county is suitable and available for residential development, the small population increase forecast obviously would be too small to upset the basic rural character of the county.

Due to its remoteness from the inner-ring area, Dutchess County should not be affected as greatly as other counties by population pressures resulting from the expanding central part of the region. Some population growth is anticipated, however, in view of the increasing employment opportunities in the Poughkeepsie area itself. The New York State Thruway and the proposed Hudson River and Boston-Albany Expressways will tend to make the county more readily accessible to other places than it has been in the past.

Until recently employment data for the counties of Dutchess and Putnam were reported as a single unit by the New York State Department of Labor because of the small number of establishments in either place. Estimates made by the Regional Plan Association indicate that for at least the past five years, over 90 percent of the combined total employment of the two counties was located in Dutchess County. Our employment forecasts, however, have been made on a single-unit basis giving a combined total for the two counties.

Total employment growth in the Dutchess-Putnam area was moderate in the post-war years. An increase of some 15,000 employees has been reported. The 1955 employment estimate of 60,000 persons represents about 1 percent of the total regional employment. The anticipated growth of some 55,000 would bring the Dutchess-Putnam total employment to a figure of 115,000 in 1975.

Nassau County

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	407	673	975	1400
Labor Force	172	279	395	580
Employed Labor Force (Employed Residents)	152	266	375	550
Employment (Jobs in County)	—	187	295	475
Number of Households	108	189	—	—
Average Household Size	3.8	3.6	—	—

LAND – 1954
(in square miles)

Total County Area	331.0
Total Land Area	284.0
Developed Land*	148.5
Recreation and Parkway Areas	25.9
Slopes Exceeding 10% in Grade	3.3
Swamps and Marshes	15.5
Open Land Suitable for Development**	90.7

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	3.9	3.9	3.9	4.0	4.0	4.0	4.0	4.0	4.0	4.1	4.0	4.0	4.0	4.0
Construction	4.2	3.2	3.1	3.5	9.6	11.7	14.8	14.5	21.2	23.8	24.4	25.1	27.6	30.4
Finance, Insurance and Real Estate	2.9	2.6	2.4	2.6	3.8	3.9	4.5	4.7	5.8	5.8	6.1	6.7	7.5	8.7
Manufacturing	44.4	66.6	71.9	27.1	30.7	23.7	26.2	30.2	42.8	66.4	82.3	95.7	95.8	89.2
Retail Trade	16.7	14.9	15.9	16.9	22.8	26.4	28.9	32.2	36.8	41.8	45.8	51.2	54.3	60.1
Services (Personal and Business)	31.9	30.3	30.8	31.5	36.2	41.1	39.6	41.3	44.8	47.0	50.3	54.8	57.9	66.1
Transport, Communications, Public Utilities	11.4	12.7	11.8	11.7	13.1	14.5	16.0	16.4	7.8	18.6	18.9	20.0	19.5	20.3
Wholesale Trade	0.7	0.7	1.0	1.1	1.6	1.8	2.0	2.0	2.4	2.7	3.2	3.6	3.5	3.9
Other	9.7	10.6	11.1	12.0	11.2	10.3	10.7	10.8	11.0	11.8	12.0	11.9	11.9	12.3
Total	125.6	145.5	152.0	110.3	132.7	137.4	146.5	156.2	186.6	222.0	247.0	273.0	282.0	295.0

Few counties in the metropolitan region have experienced the impact of suburbanization quite as fully as Nassau County. Contrary perhaps to popular conception, the county has grown at a faster rate than the regional average ever since the turn of the Century. Until the post-World War II period, however, the numbers of persons involved were not significant enough to stir up notice. This has been radically changed, of course. The 1940-50 population increase of 266,000 now has been exceeded by the growth between 1950 and 1955, nearly 400,000 persons. Almost one-quarter of the total regional population increase since 1950 has occurred in Nassau County.

The location on Long Island of a significant segment of the aircraft industry during its phenomenal wartime growth was an initial impetus to the county's recent and astonishing population surge. Additional factors were Nassau's proximity to New York City and to Long Island's shore recreational facilities. Abundant land perfectly suited to large-scale residential construction was the final and decisive factor.

The very rapidity of Nassau's growth has radically altered the county's potential. Growth in the future, though still vigorous, probably will occur at a lessening rate, more in line with the larger regional growth patterns. By 1975 the population of Nassau County is expected to reach 1,400,000 persons. The average annual increase anticipated, 2.2 percent, is in sharp contrast to the 8.8 percent annual rate of growth from 1950 and 1955. Virtually all of the land now available for development in the county probably will be utilized in the next 20 years. In other words, Nassau should become fully saturated before 1975 with few open tracts left for development.

While the proportion of new apartment units currently being built in Nassau is only three percent of total dwelling-unit construction, the population increase of 425,000 persons forecast for the 1955-75 period assumes a shift in emphasis towards considerably more multi-family construction. We believe that this will occur in response to the dwindling supply of vacant land; and it will be made possible by new sanitary sewers in construction or proposed, particularly in the south-west portion of the county. Thus, between now and 1975 it is estimated that the total number of new dwelling units in apartment buildings will reach 40 percent of the county's total gain. Indeed, of the dwelling units built in 1975 more than half probably will be in apartments.

This forecast assumes that the 25,000 acres in private estates located in the North Shore area will continue to decrease as owners gradually yield to continuing population pressures. Furthermore, filling operations in the swamp areas of the South Shore should add somewhat to the available vacant land.

Continued population pressures reflect Nassau's outstanding geographic position in the region as well as its advantages as a county in which to live. Its proximity to Queens makes Nassau subject to the population pressures that result from the out-migration of many New York City residents. Likewise, its proximity and accessibility to the Manhattan employment centers assure its attractiveness as a residential area.

For Nassau County's employment prospects, see page 46.

Orange County

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	140	152	170	260
Labor Force	60	68	75	110
Employed Labor Force (Employed Residents)	52	60	60	95
Employment (Jobs in County)	—	48	51	85
Number of Households	37	43	—	—
Average Household Size	3.8	3.5	—	—

LAND – 1954
(in square miles)

Total County Area	846.0
Total Land Area	829.0
Developed Land*	53.4
Recreation and Parkway Areas	35.3
Slopes Exceeding 10% in Grade	199.6
Swamps and Marshes	5.5
Open Land Suitable for Development**	535.2

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	5.9	5.8	5.7	5.6	5.5	5.4	5.3	5.2	5.1	5.0	4.8	4.7	4.6	4.5
Construction	1.1	0.9	0.7	1.0	1.8	1.8	2.2	1.9	2.2	2.7	2.0	3.1	5.1	3.2
Finance, Insurance and Real Estate	1.0	0.9	0.8	0.9	1.0	1.1	1.2	1.1	1.1	1.3	1.3	1.3	1.3	1.5
Manufacturing	10.3	11.2	10.6	10.6	12.9	12.9	13.0	12.9	14.0	13.1	14.1	14.1	14.2	13.9
Retail Trade	5.8	5.8	5.8	6.0	7.3	8.1	9.2	9.0	9.4	8.7	8.7	9.1	9.2	9.6
Services (Personal and Business)	8.4	7.8	7.8	7.6	9.1	8.7	8.5	8.4	9.2	8.7	9.2	9.7	9.7	10.4
Transport, Communications, Public Utilities	3.0	3.1	3.2	3.2	3.6	3.6	3.8	3.7	3.9	4.1	4.3	4.5	4.5	4.5
Wholesale Trade	0.7	0.7	0.6	0.7	0.8	1.0	1.0	1.0	1.2	1.1	1.4	1.4	1.3	1.3
Other	2.3	2.5	2.6	2.7	2.2	2.2	2.2	2.1	2.2	2.2	2.2	2.1	2.1	2.1
Total	38.6	38.6	37.8	38.3	44.3	44.7	46.5	45.4	48.2	47.0	48.0	50.0	52.0	51.0

With over 845 square miles, Orange County is the region's second largest county in land area. The land is diverse in character and varies in suitability for development. The topography ranges from gently rolling to hilly and mountainous country. The mountainous range extending, roughly, from Warwick to Cornwall-on-the-Hudson is a continuation of the mountains that blanket the westerly periphery of the region in upper Passaic and Morris counties in New Jersey. Beyond this mountainous area, the topography is less rugged than in any other extensive area in the northerly parts of the region. The broad valleys and slopes of Orange County are suitable for both residential and industrial development. More land suitable for development is located in Orange County than in any other New York State county except Suffolk on Long Island and Dutchess.

The availability of this good land has been offset in the past, however, by the general remoteness of the county from the major urban centers of the region. By rail, nearly the entire county is beyond the 1½ hour door-to-door commuting range to New York City. In terms of highway access, the situation is fast improving. The New York State Thruway already is having a significant impact by increasing the accessibility of the county to the region's major industrial and labor concentrations. In addition, the proposed relocation of Route 6 on an expressway crossing the county from Port Jervis on the west to Newburgh on the Hudson and the rebuilt Route 17 Quickway should greatly improve the county's relative accessibility.

The above considerations, in light of the region's expected expansion, suggest that future growth in Orange County may take place at a much faster rate than anything already experienced. During the 1930-50 period Orange County's population increased 17 percent or an average annual increase of 0.8 percent. A population increase of 90,000 persons suggested in our forecasts would raise the 1955 estimated population of 170,000 to a level of 260,000 in 1975. This would represent a total increase of 53.0 percent or an average annual increase of 1.7 percent.

Within Orange County only three municipalities, Port Jervis, Middletown and Newburgh, serve as major centers of employment. Centers outside the county such as Kingston, Poughkeepsie and more recently Mahwah in Bergen County, have not yet provided a sufficient economic base to stimulate very much population growth in Orange.

During the postwar period the growth of employment in Orange has been negligible. It rose from about 45,000 in 1946 to approximately 51,000 in 1955. According to the New York State Department of Commerce, only 20 firms in the county employ more than 200 persons, 15 of these employing between 200 and 500 persons. The future rate of employment expansion in Orange is expected to accelerate. An increase of 35,000 jobs is forecast, from the 1955 employment estimate of 50,000 to 85,000 in 1975.

(Of course, undertakings such as Sterling Forest, referred to in RPA Bulletin 85, if successfully realized, would enhance both the population and employment growth potential of the county. More than most areas in the region, Orange has the geographical advantages that might attract large-scale community building.)

Putnam County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	17	20	25	50
Labor Force	7	8	10	20
Employed Labor Force (Employed Residents)	6	7	9	20
Employment (Jobs in County)	—	*	*	*
Number of Households	4	6	—	—
Average Household Size	3.7	3.3	—	—

*Included with Dutchess County

LAND – 1954
(in square miles)

Total County Area	247.0
Total Land Area	235.0
Developed Land*	13.8
Recreation and Parkway Areas	12.5
Slopes Exceeding 10% in Grade	164.5
Swamps and Marshes	4.6
Open Land Suitable for Development**	39.6

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

The combined forces of nature and geography suggest that Putnam County will retain its predominantly rural character during the next twenty years.

As it has been in the past, Putnam County probably will continue as the least populous county in the region and the county with the least employment. During the next twenty years the population of Putnam County should double in number from the 1955 estimate of 25,000 to approximately 50,000 persons. Even if this 1975 estimate is attained, Putnam will only embrace three-tenths of one percent of the forecasted total regional population.

A key deterrent to extensive growth is the very limited amount of available land. The rugged topography, almost embracing the entire county, is too steep for extensive urbanization. Furthermore, a significant portion of the county is retained as watershed lands. When the valleys were flooded to make reservoirs, the very lands most suited to development were taken out of general use. It is appropriate to note here that because of the heavily wooded and mountainous areas as well as the numerous lakes, Putnam County is a popular summer resort area for urban residents from New York City.

Even if Putnam had more suitable land available, its location in relation to the region would tend to restrict extensive growth. Employment in the county itself is very small, limited largely to local trade and service (see page 58). Too distant for easy commuting to Manhattan, residents of Putnam County have access only to such minor employment centers as Newburgh in Orange County, Danbury in Fairfield County and Poughkeepsie in Dutchess County, though Westchester to the south is gradually expanding its job opportunities.

Separated as it is from the urban areas of the region by the northern portion of Westchester County, Putnam probably will be little subject to the population pressures spreading out from lower Westchester until after another full decade.

Future transportation facilities may exert a positive effect on the growth of the county. No great changes should be expected in the limited service offered by the New York Central Railroad. The proposed relocation of Route 6 cutting through the county, however, will make Newburgh and Danbury more readily accessible to Putnam residents. The proposed Hudson River Expressway and the rebuilding of Route 22 on a new alignment late in the forecast period should expedite north-south travel, making Poughkeepsie to the north and Westchester communities to the south easier to reach.

Rockland County

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	74	89	100	250
Labor Force	28	34	35	110
Employed Labor Force (Employed Residents)	24	32	35	95
Employment (Jobs in County)	—	23	28	60
Number of Households	16	22	—	—
Average Household Size	4.6	4.1	—	—

LAND – 1954
(in square miles)

Total County Area	201.0
Total Land Area	172.0
Developed Land*	27.1
Recreation and Parkway Areas	38.8
Slopes Exceeding 10% in Grade	29.5
Swamps and Marshes	3.4
Open Land Suitable for Development**	73.2

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955
(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.8	0.7	0.7	0.7	0.7	0.6
Construction	0.9	0.7	0.4	0.8	1.1	1.4	1.8	1.5	1.6	2.0	3.3	2.1	2.7	3.5
Finance, Insurance and Real Estate	0.2	0.4	0.3	0.4	0.4	0.4	0.4	0.5	0.5	0.6	0.5	0.6	0.7	1.2
Manufacturing	7.7	7.8	7.8	7.4	8.5	8.8	8.2	8.5	9.9	10.7	9.9	10.9	8.9	10.5
Retail Trade	1.8	2.6	1.6	1.7	2.2	2.6	2.8	2.9	3.1	3.1	3.1	3.6	3.5	3.8
Services (Personal and Business)	3.0	2.9	3.2	2.8	3.0	3.2	3.0	3.4	3.4	3.8	3.4	3.9	4.3	4.2
Transport, Communications, Public Utilities	1.6	1.9	1.8	1.9	2.0	2.1	2.1	2.1	2.2	2.2	2.1	2.3	2.3	2.3
Wholesale Trade	0.1	0.2	0.1	0.2	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.3	0.3	0.4
Other	1.5	1.6	1.6	1.6	1.5	1.5	1.5	1.5	1.5	1.6	1.7	1.6	1.6	1.5
Total	17.8	18.8	17.7	17.7	19.7	20.9	20.9	21.4	23.2	25.0	25.0	26.0	25.0	28.0

The New York State Thruway, the Palisades Interstate Parkway, the extensions of the New Jersey Turnpike and Garden State Parkway comprise the impressive list of major highways completed or proposed which will serve Rockland County.

The Tappan Zee Bridge on the Thruway provides the first land connection between Rockland and Westchester counties. The new north-south expressways soon will connect Rockland County with the urban concentrations and industrial districts of northeastern New Jersey. The proposed relocation of Route 202 when completed will create a connection between Rockland County and the outer-ring counties of the New Jersey portion of the metropolitan region.

Thus, the growth of the metropolitan arterial highway system will be the most important single element influencing the future growth of Rockland County.

Level terrain characteristic of most of the available land in the county offers a strong inducement for residential development. The hilly northwestern section of the county bordering Orange County already is almost entirely reserved by the Palisades Interstate Park. A mountainous range along much of the Hudson River frontage also is largely reserved for park use. The large central areas of gently rolling land, however, present few obstacles to the building of extensive subdivisions, or such business establishements and industrial plants as may wish to come to the county.

Several factors may tend to limit development in Rockland to relatively low densities similar to those in the already built-up areas of the county. These include soil conditions unfavorable to a long-term use of sewage disposal by individual septic tanks; the stringency of the zoning ordinances in the larger towns; and the relative great distances from the core areas of the region. The proposed development of new sanitary sewer systems in the county when realized, however, will permit some intensification of development within the sewered districts. Nevertheless, a lower-than-average overall county density pattern in 1975 appears likely.

The 1975 population forecast of 250,000 is 150,000 above the 1955 estimated population of 100,000. Put in other terms, in contrast to the population growth of 48 percent during the 1930-1950 period, the forecast indicates a growth of 150 percent in the next two decades. This is the fastest percentage rate of growth forecast for any county in the region.

Most of the post-war employment gains in Rockland County have occurred since 1950. The increase lifted the county employment from 21,000 in 1947 to 28,000 persons in 1955. This may reach 60,000 by 1975.

Rockland, however, still will have relatively few employment opportunities for its expanding population. Forecasts indicate a much smaller growth of employment than of population. An increasing number of county residents, therefore, probably will have to be "exported," commuting to the New Jersey industrial belt, to New York City or to Westchester County employment centers.

Suffolk County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	197	276	445	845
Labor Force	73	102	160	325
Employed Labor Force (Employed Residents)	62	97	155	310
Employment (Jobs in County)	—	69	109	265
Number of Households	48	72	—	—
Average Household Size	4.1	3.9	—	—

LAND – 1954

(in square miles)

Total County Area	1177.0
Total Land Area	922.0
Developed Land*	163.0
Recreation and Parkway Areas	34.4
Slopes Exceeding 10% in Grade	11.2
Swamps and Marshes	3.9
Open Land Suitable for Development**	709.5

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	7.1	7.2	7.3	7.3	7.4	7.4	7.5	7.5	7.6	7.8	7.5	7.7	7.7	7.7
Construction	1.5	1.7	1.1	1.7	3.8	4.1	4.6	5.0	6.1	6.6	7.6	9.6	9.8	11.6
Finance, Insurance and Real Estate	1.0	1.0	1.0	1.1	1.5	1.7	2.1	1.9	2.2	1.9	2.8	2.6	2.8	3.2
Manufacturing	21.0	28.6	22.4	10.3	17.0	13.3	14.6	14.6	6.6	10.7	13.7	14.3	13.4	14.3
Retail Trade	6.0	5.5	6.0	6.9	8.6	10.2	11.1	11.9	13.2	13.5	20.1	16.5	18.7	21.0
Services (Personal and Business)	14.4	13.6	13.8	13.1	16.0	18.8	20.0	22.7	23.0	23.3	32.4	28.7	32.5	36.3
Transport, Communications, Public Utilities	3.3	3.6	3.9	4.1	4.3	4.5	4.9	4.8	5.1	5.3	7.5	7.4	7.6	8.2
Wholesale Trade	0.6	0.6	0.5	0.7	0.8	0.9	1.0	1.1	1.1	1.2	1.7	1.4	1.6	1.6
Other	3.7	4.4	4.5	4.8	4.3	4.1	4.3	4.4	4.4	4.8	4.7	4.8	4.9	5.1
Total	58.7	66.3	60.6	49.9	63.6	65.2	69.9	73.9	69.3	75.0	98.0	93.0	99.0	109.0

Occupying the most easterly end of the Long Island peninsula, Suffolk has not been as intensively subjected to the population pressures of the growing region as it will be in the coming decades. Since 1950, however, Suffolk County has grown at an even faster percentage rate than its neighbor, Nassau. This relationship probably will be maintained throughout the next 20 years. In fact, by 1970 Suffolk may be having a larger annual growth than Nassau in absolute numbers as well as in percentages.

During the 1955-75 period, Suffolk County probably will increase from its 1955 estimate of 445,000 to about 850,000 persons, a 90 per cent gain. Much of the population increase forecast for Suffolk is based on the assumption that as vacant land in Nassau becomes built up, great development pressures on Suffolk are inescapable. This spillover will have its greatest effect on the four western towns: Babylon, Islip, Huntington and Smithtown. There already is vigorous growth in these towns which are reasonably accessible both to New York City and to Long Island's own major employment centers.

There is an unlimited amount of the best sort of building land in Suffolk. With lot sizes generally larger than those in Nassau and hence with less need of extensive sewer systems, little initial delay has impeded the development of residential sites in Suffolk. The major deterrent to even more rapid growth is Suffolk's relative remoteness from the key employment areas elsewhere in the region.

Part of the projected county growth, however, will depend on local employment opportunities present or anticipated on Long Island itself. In 1955 about 110,000 persons were employed in Suffolk County. Another 155,000 or 141 percent may be added by 1975 according to our estimates. This would bring the county's job level to 265,000.

Westchester County

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	574	626	735	1000
Labor Force	257	280	320	430
Employed Labor Force (Employed Residents)	221	269	310	415
Employment (Jobs in County)	—	193	243	350
Number of Households	148	176	—	—
Average Household Size	3.9	3.6	—	—

LAND – 1954

(in square miles)

Total County Area	487.0
Total Land Area	435.0
Developed Land*	101.7
Recreation and Parkway Areas	56.8
Slopes Exceeding 10% in Grade	94.7
Swamps and Marshes	2.3
Open Land Suitable for Development**	179.5

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.4	3.5	3.5	3.4	3.5	3.4	3.4
Construction	6.1	6.0	4.9	5.8	12.7	12.9	14.2	13.6	16.5	17.4	15.8	17.5	19.7	22.7
Finance, Insurance and Real Estate	6.4	6.1	5.6	5.4	6.2	6.6	7.2	7.1	7.6	7.2	7.4	7.6	8.0	9.6
Manufacturing	39.3	47.3	49.7	36.7	39.1	42.7	44.0	41.0	44.0	44.2	47.6	50.9	44.4	48.1
Retail Trade	26.1	23.3	23.4	25.7	32.1	34.6	35.9	36.6	37.7	38.3	38.3	39.5	41.3	46.1
Services (Personal and Business)	51.6	49.7	49.1	49.7	53.2	53.6	54.5	54.2	54.1	53.9	54.6	62.1	72.5	79.8
Transport, Communications, Public Utilities	13.2	12.8	13.2	13.8	15.3	15.7	16.7	16.1	16.3	16.2	15.6	15.6	16.0	17.0
Wholesale Trade	1.7	1.6	1.9	2.0	2.4	2.5	2.7	3.0	3.1	3.6	3.8	3.9	4.6	4.9
Other	10.9	12.1	12.1	12.7	11.2	10.5	10.5	10.4	10.2	10.7	10.5	10.5	10.1	11.4
Total	158.6	162.4	163.4	155.2	175.6	182.6	188.8	185.4	192.9	195.0	197.0	211.0	220.0	243.0

Since the turn of the century, with the exception of one decade, Westchester County's growth has been at a rate higher than that of the metropolitan region as a whole. In the decade following the First World War the county's growth was almost twice as great as the region. In the depression decade, the slight 1 percent annual average growth rate was still slightly higher than the regional rate. A change in this traditional relationship occurred in the 1940-50 decade, when during the housing shortage the county grew only 4/5ths as fast as the region. But apparently this was only a temporary phenomenon. During the first half of the current decade, the county's 3.5 percent average annual rate of growth was again almost twice the rate of the region as a whole.

The future growth of the county should raise the total forecasted population in 1975 to one million persons, an increase of some 265,000 persons over the 1955 estimate of 735,000 persons. Thus the county may experience a 36 percent growth during the next two decades, an annual average of 1.8 percent.

Various forces are at work inducing this continued growth. Of key importance is the accessibility of the county to the region's central employment areas. For more than a century commutation to New York City has been a major factor in Westchester's growth. A 1951 study by the Regional Plan Association indicated that Westchester had the second largest number of railroad commuters to Manhattan of all the counties outside New York City. The number in 1949 totaled about 53,000, a figure 11,000 larger than the number of manufacturing production workers in the county in the same year. According to available data, Westchester rail commuters were increasing by an average of 2,000 per year between 1940 and 1949.

In addition to the railroad commuters, some 40,000 workers had jobs in places outside the county in 1950, according to estimates. No trend data are available for this latter group of commuters. It is reasonable to assume, however, that commutation to other counties such as Bronx, Queens, Nassau, Fairfield and Bergen will continue to increase strongly in the future. Especially is this suggested by the emerging configuration of highways and industrial development in nearby parts of the region.

Proximity to employment centers would not be sufficient reason for growth were it not for the availability of large quantities of vacant land suitable for residential development. In view of the probable saturation of vacant land in the other inlying counties of the region during the next 20 years, continued development in Westchester seems assured.

Certain factors, however, are likely to restrict the growth of the county. Most significant is the topographic character of the land. A good proportion of the vacant land available for residential development is found in areas with slopes over 10 percent. Topography and the rockiness of the land should preclude any development "explosion" such as has been experienced by Nassau County in recent years.

A substantial part of the expected 265,000 person gain probably will find residence in the lower portion of Westchester. Rigid zoning strongly supported by municipal policy and community opinion may tend to limit population spread in many of the northern Westchester towns above the "waistline" of the county north of White Plains to relatively small numbers of people.

The 1955 Westchester employment estimate, 240,000 jobs, represents a significant post-war growth. Continued employment growth is forecast for Westchester County,

though at a rate slower than the recent experience. Nevertheless, employment should increase at a rate greater than the expected population growth, a trend important to the provision of governmental services. The county's anticipated growth in employment of 46 percent by 1975 should add about 110,000 jobs for a total of 350,000.

New York City

New York

EMPLOYMENT BY MAJOR INDUSTRY GROUP 1942 TO 1955

(In Thousands of Jobs)

	1942	1943	1944	1945	1946	1947	1948	1949	1950	1951	1952	1953	1954	1955
Agriculture, Forestry and Fishing	3.9	4.0	4.2	4.4	4.5	4.7	4.9	5.1	5.2	5.4	5.5	5.7	5.8	6.0
Construction	139.8	90.4	82.3	85.4	132.2	146.9	158.0	163.0	170.3	152.5	133.5	132.1	136.1	143.9
Finance, Insurance and Real Estate	299.9	287.8	278.7	279.0	309.3	312.2	318.9	314.8	319.6	318.4	316.3	323.0	326.7	333.3
Manufacturing	967.3	1088.7	1034.7	919.4	1048.6	985.0	995.1	963.1	999.6	944.6	960.6	955.4	918.0	924.9
Retail Trade	514.3	507.4	496.7	494.9	567.5	595.5	608.0	598.4	594.2	575.6	560.1	552.2	546.7	550.8
Services (Personal and Business)	751.1	741.7	781.9	781.5	832.9	861.7	884.6	876.4	891.9	935.4	932.8	949.2	950.4	993.8
Transport, Communications, Public Utilities	280.7	288.7	297.0	297.0	317.9	395.5	383.7	369.7	352.7	374.7	363.9	368.2	347.7	354.1
Wholesale Trade	165.0	167.7	177.4	192.8	232.6	250.4	253.2	248.2	250.0	249.7	248.5	252.0	247.1	250.6
Other	264.6	304.2	306.9	328.2	383.1	261.5	265.0	266.8	261.8	278.7	277.8	273.2	269.5	281.6
Total	3386.7	3480.7	3459.9	3382.5	3728.6	3813.4	3871.4	3805.3	3845.3	3835.0	3799.0	3811.0	3748.0	3839.0

Bronx County

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975

(in thousands except average household size)

	1940	1950	1955	1975
Population	1395	1451	1490	1500
Labor Force	644	651	645	645
Employed Labor Force (Employed Residents)	530	606	610	600
Employment (Jobs in County)	—	220	230	280
Number of Households	378	425	—	—
Average Household Size	3.7	3.4	—	—

LAND – 1954

(in square miles)

Total County Area	54.0
Total Land Area	43.0
Developed Land*	31.5
Recreation and Parkway Areas	6.5
Slopes Exceeding 10% in Grade	—
Swamps and Marshes	1.3
Open Land Suitable for Development**	3.7

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

The Bronx, in common with the other core counties of the metropolitan region, has passed its phase of rapid population growth. Its future population numbers probably will remain close to the present level.

Of the remaining vacant land only a small portion is particularly suitable for residential development. The bulk of the unused land may be better adapted to industrial uses. Virtually all the residential tracts convenient to rapid transit lines already have been built up. With their gradual exhaustion, the growth of the borough since 1930 has been relatively restricted.

During the next 20 years much of the housing stock in the Bronx may become obsolete by current standards of space, light and air, and neighborhood layout. The success of urban renewal programs will have an increasingly greater significance on the exact level of the future population and especially on its ethnic composition and its income distribution.

Two main trends probably will cancel each other out. The first is the trend toward fewer persons in the same amount of housing because of the over-all decline in persons per household. The second is the trend toward replacing obsolete low-density flats and homes by more intensive apartment buildings under urban renewal programs.

In spite of the relative stability anticipated for the resident population of the Bronx, favorable shifts taking place in the locational patterns of commercial and industrial establishments are expected to increase the number of person employed in the Bronx by about 50,000.

An emerging network of express highways should enable the Bronx to exploit its strategic location in relation to New England, to Long Island and to the northern counties of this metropolitan region. As a consequence, the borough is expected to attract a full proportionate share of the region's industrial and commercial growth, even though New York City as a whole may not keep pace with the environs.

Kings County (Brooklyn)

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	2698	2738	2725	2675
Labor Force	1237	1219	1170	1135
Employed Labor Force (Employed Residents)	1022	1131	1095	1055
Employment (Jobs in County)	—	658	664	740
Number of Households	717	796	—	—
Average Household Size	3.8	3.4	—	—

In 1930 for the first time Brooklyn (Kings County) topped Manhattan in population and became the region's most populated county. Its peak probably was reached around 1950 when 2,738,000 persons were reported in the census. By 1975 it is possible that Brooklyn's population may descend to about 2,675,000.

The most significant factor inhibiting further population growth in Brooklyn is the very limited amount of vacant land suitable for new residential construction. In common with the other core areas, Brooklyn may have to redevelop its obsolete sections at higher-than-present densities to hold population at a steady level if the borough wishes to offset the effects of declining average household size.

In contrast to the relative stability of the resident population, employment in Brooklyn is expected to rise by some 75,000 jobs in the next 20 years. This would bring the number of jobs to a figure of 740,000, second in the region only to Manhattan. The continued decentralization from Manhattan of many commercial and industrial activities and the probable relocation of certain wholesaling establishments will help to swell Brooklyn's job increase. So will waterfront improvements about to be undertaken by the Port Authority.

The proposed Cross-Brooklyn and Bushwick highways will expedite traffic from one part of the borough to another. The completion of additional arterial highways, together with the Narrows Bridge connecting Brooklyn with New Jersey via Staten Island, will provide added incentives for enterprises to find sites in Brooklyn, close to the geographic center of the regional population.

The extraordinary population level of Brooklyn is the result above all else of its mass transit system. This should continue as an important factor in maintaining large amounts of both population and employment in the borough.

New York

LAND – 1954

(in square miles)

Total County Area	89.0
Total Land Area	76.0
Developed Land*	38.0
Recreation and Parkway Areas	3.0
Slopes Exceeding 10% in Grade	—
Swamps and Marshes	2.9
Open Land Suitable for Development**	32.1

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

New York County (Manhattan)

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	1890	1960	1875	1825
Labor Force	1023	1008	925	860
Employed Labor Force (Employed Residents)	813	923	860	790
Employment (Jobs in County)	—	2571	2518	2280
Number of Households	548	626	—	—
Average Household Size	3.4	3.1	—	—

Between 1950 and 1955 the population of Manhattan declined from 1,960,000 to an estimated 1,875,000 inhabitants. Although a further slight decline is forecast over the next 20 years, the borough is expected to maintain a relatively stable level of resident population. The 1975 forecast is 1,825,000 persons. Because other parts of the region will be growing vigorously, however, Manhattan's population forecast represents a decline from 12.3 percent of the regional population in 1955 to only 9.6 percent in 1975.

Given the absence of vacant land available for new residential construction, the key variables determining Manhattan's future population level appear to be public renewal and redevelopment policy and housing policy. An increasing number of Manhattan's dwelling units probably will become hopelessly obsolete during the next 20 years and hence eligible and ripe for redevolpment.

The most striking aspect of Manhattan's employment is its sheer size, 2½ million jobs. But Manhattan's most significant trend perhaps is the change in economic emphasis toward a greater stress on business and professional services, finance, insurance, real estate—in short, industrial administration and management activities of all kinds.

Ever since 1919, the earliest year for which we have been able to obtain regional statistics covering manufac-

New York

LAND – 1954

(in square miles)

Total County Area	31.0
Total Land Area	22.0
Developed Land*	19.8
Recreation and Parkway Areas	2.2
Slopes Exceeding 10% in Grade	—
Swamps and Marshes	—
Open Land Suitable for Development**	—

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

turing jobs, New York City's share of the regional total has been declining. The city's manufacturing has dropped from 58 percent of the regional manufacturing employment total in 1919 to 50 percent in 1954. In the same period, Manhattan's manufacturing declined from 36 percent of the regional total to only 28 percent. In the most recent period for which there are estimates, the borough's manufacturing employment appears to have continued its percentage decline and even to have suffered an absolute drop. The number of manufacturing jobs reported for Manhattan declined by 72,000 jobs from 589,000 in 1950 to 517,000 in 1954. To some extent the earlier figure probably was an over-estimate because it included some out-of-county employment of firms with main offices in Manhattan. Nevertheless, available evidence does suggest a slightly declining level of manufacturing employment in Manhattan.

A loss of some 30,000 jobs also is recorded in Manhattan's retail trade employment between the two U.S. censuses of 1948 and 1954. Another index of a reduction in retail activities during the period is a 3 percent decline in the dollar-adjusted sales volume of retail trade in Manhattan.

The net effect of the continued growth of Manhattan as the national and world center of management and its slight decline in manufacturing and in retailing has been a stable level of employment. Looking ahead 20 years, however, it is possible that Manhattan's employment may decline, perhaps by as much as ¼ million jobs by 1975. This would be a loss of almost 10 percent of the 1955 estimates of 2.5 million jobs. In effect, within its over-all stability Manhattan evidently is substituting office-type jobs in place of goods processing jobs. There are reasons to believe that in the long run this may result actually in a strengthening of the city's economy even though the net effect may be a slight decline in total jobs. As has been noted, Manhattan is replacing one dollar a square foot space by six dollar a square foot space in response to the shift in the pattern of economic activities.

The post-war office building construction boom in Manhattan reflects both the choice of Manhattan as the headquarters location of national and international enterprises and the increasing importance of administrative workers, as contrasted with production workers, in the composition of industrial employment.

The projected slight decline in Manhattan's total employment, if it occurs, will not necessarily result in a decline in commutation to Manhattan. Quite the contrary is possible. Commuting to Manhattan actually may increase as the result of a likely increase in the number of Manhattan's upper and middle income employees. These persons may tend to retain their lucrative Manhattan jobs while settling in the other boroughs and the suburbs for the sake of what they consider better living conditions.

Indeed, Manhattan's white-collar employment growth (office and administrative workers) probably will attract even more commuters from the suburban counties than at present. At the same time, the fast growth of blue-collar employment (production workers) in the vast industrial districts and belts beyond Manhattan may bring about a substantial increase in reverse-commutation to these industrial areas from Manhattan's lower-income neighborhoods.

Queens County

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	1298	1551	1750	1900
Labor Force	603	706	770	840
Employed Labor Force (Employed Residents)	521	674	740	800
Employment (Jobs in County)	—	363	392	530
Number of Households	362	462	—	—
Average Household Size	3.6	3.4	—	—

The 1955 population of Queens County is estimated at 1¾ million which is 200,000 higher than the 1950 figure. A major portion of Queens' recent residential growth occurred on tracts which had remained vacant because they previously have been considered relatively inaccessible in relation to rapid transit lines. The few undeveloped lands still existing in Queens probably will be developed before the close of the present decade.

We have forecast a 1975 population in Queens County of 1.9 million persons. This would be an increase of 150,000 or 9 per cent over the current estimate. A lesser portion of the growth should result from new construction on the vacant tracts. Mainly, the population rise will be due to an increase in overall borough population densities following a gradual replacement of scattered one- and two-family houses by multi-unit apartments. The latter have many more dwelling units to the acre. This process already is taking place in such areas as Rego Park, Forest Hills and Cryders Point.

Queens County has many attractions which together produce tremendous pressures for continued growth. To begin with, there is the great convenience and low cost of rapid transit travel to other parts of Queens and especially to Manhattan. Rapid transit extension to the Rockaway peninsula should stimulate speedy development there to the maximum densities permitted.

In addition, the arterial highways crossing the county, though more intended perhaps to facilitate movement between Manhattan and Nassau, nevertheless will stimulate growth in contiguous areas as they traverse Queens. Increases in industrial employment locally as well as in

New York

LAND – 1954

(in square miles)

Total County Area	127.0
Total Land Area	113.0
Developed Land*	101.8
Recreation and Parkway Areas	5.8
Slopes Exceeding 10% in Grade	—
Swamps and Marshes	3.8
Open Land Suitable for Development**	1.7

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

nearby Nassau County similarly will contribute pressure for population growth in Queens.

Other assets of the borough are the presence of several large parks—Kissena, Flushing Meadow (to be developed), Forest and Cunningham—and Queens' convenient location in relation to shore recreational facilities on the Long Island peninsula.

As to its economic prospects, Queens County appears to have a favorable future. Of the total estimated employment in 1950, 30 percent or some 110,000 people were employed in manufacturing establishments, conversely, 70 percent worked in non-manufacturing enterprises. Approximately the same relationship existed in 1955 and probably will persist in 1975 when some 160,000 persons of the estimated 530,000 likely to be employed in the borough may be employed in manufacturing. The diverse industrial concentrations already established in Long Island City and in the Newtown Creek area should attract further industrial growth to Queens. So favorably is Queens situated in relation to the region's labor supply and transport network that the real limit likely to be set on its employment growth is the availability of adequate industrial sites.

The 1975 forecast for Queens of a total of 530,000 jobs would represent an increase of 140,000 or 36 percent over the 1955 estimate of 390,000 employed in the county.

Richmond County (Staten Island)

New York

POPULATION, EMPLOYMENT AND HOUSEHOLDS
1940 TO 1975
(in thousands except average household size)

	1940	1950	1955	1975
Population	174	192	210	500
Labor Force	75	83	90	205
Employed Labor Force (Employed Residents)	61	76	80	185
Employment (Jobs in County)	—	33	35	100
Number of Households	43	51	—	—
Average Household Size	4.0	3.7	—	—

LAND – 1954
(in square miles)

Total County Area	64.0
Total Land Area	60.0
Developed Land*	30.8
Recreation and Parkway Areas	6.0
Slopes Exceeding 10% in Grade	0.7
Swamps and Marshes	5.0
Open Land Suitable for Development**	17.5

*Includes residential development at densities up to 2 acres per dwelling, commercial, industrial and institutional uses.

**Includes vacant land, farms and residential estates at densities over 2 acres per dwelling.

Our population forecast suggests a 1975 total of ½ million persons in Richmond County. This would amount to an increase of 290,000 persons or 138 percent over the 1955 population estimate, 210,000.

This tremendous growth potential is forecast for Richmond County despite its radical departure from the island's past experience. Several new factors underlie this forecast which in turn depends on their realization. With the exhaustion of vacant land in the core counties and even in the inner ring, great population pressures not previously present will shift to underdeveloped counties like Richmond. Particularly these pressures will arise out of Hudson, Essex and Union counties, where a gradual depletion of vacant land reserves suitable for residential development is to be expected.

The Narrows Bridge, which is likely to be constructed during the first half of the 1960's, also may become a key factor in the rapid growth of Richmond. The bridge should reduce travel time to Brooklyn, Queens and Manhattan. It also is intended to facilitate the flow of traffic between New Jersey and Long Island and New England. Thus, Richmond may emerge as a "corridor" county, a function Westchester, Fairfield and Bergen serve to a great extent at present. Recognition of this potential role is manifested by the planning of several cross county expressways on Richmond, contemplated in conjunction with the Narrows Crossing.

Richmond's potential residential areas not only will have access to the rest of New York City, but especially to expanding employment areas of Richmond itself and the New Jersey industrial belt just to the west.

The residential attraction of Richmond is being enhanced by the development of its shore recreational facilities accompanied by increased pollution control. Spacious parks scattered throughout the county add to the island's attraction as a residential location.

Future municipal policy will be the crucial factor in the growth of Richmond. The "revision of area and height zoning," recently announced by the New York City Planning Commission, tends to confirm our present assumption that development in Richmond will take place at lower overall densities than have been required in the zoning up to the present. The timing of the construction of the Narrows Crossing may affect not only the speed but the amount of population growth too. The longer it is delayed, the greater will be the proportion of the vacant lands in Richmond which will be built up permanently at relatively low densities of residential development.

At present there is less employment in Richmond than in any other county in the region except Putnam and Rockland. Future industrial growth is most likely to take place in the westerly section of the county adjacent to the Arthur Kill. This is an area of extensive vacant lands. Some, being of a swampy nature, will become available only after a process of filling has been completed.

A job increase of 65,000 persons (186 percent over the 1955 employment estimate of 35,000) is forecast for Richmond.

More perhaps than in the case of any other county, the Richmond forecast depends on a systematic promotion of the local industrial opportunities and a carefully planned program to create an attractive residential environment. It is within the power of New York City authorities to carry out such a program and to supplement and guide the natural forces that will influence Richmond County in the future.

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LAND USE MAP – ERRATA

FAIRFIELD COUNTY

The white area enclosed by a line in Easton is developed and should be in color.

MORRIS COUNTY

Hopatcong State Park in Roxbury and Hacklebarney State Park in Washington have been omitted.

SOMERSET COUNTY

Airports in Montgomery and Branchburg have been omitted.

DUTCHESS COUNTY

The white areas enclosed by a line in the following communities are developed: Beekman, Dover, Union Vale and Washington.

Commercial areas have been omitted in Poughkeepsie and Beacon.

NASSAU COUNTY

Areas enclosed by a line with dots in the following communities should be green: Lattingtown (shown as institutional), Oyster Bay Cove (shown as commercial), and Hewlett Harbor (shown as residential).

In Lake Success, Sperry should be industrial instead of institutional.

ORANGE COUNTY

The white areas enclosed by a line in the following communities are developed: New Windsor, Newburgh, Deerpark, Wallkill, and Mount Hope.

Area designated park (green) in Goshen should be commercial (red). Commercial areas have been omitted in Newburgh and Cornwall.

PUTNAM COUNTY

The white areas enclosed by a line in Philiptown and Brewster are developed and should be in color.

SUFFOLK COUNTY

White areas enclosed by a line near the following communities are developed and should be in color: East Hampton, Southampton, Southold, Westhampton Beach, Brookhaven, Smithtown, Islip and Riverhead.

Orient State Park in Southold should be green instead of yellow.

Area with dot in Southampton should be green.

WESTCHESTER COUNTY

Commercial area has been omitted in Peekskill.

County boundary lines have been omitted entirely or in part between Bronx and Westchester, Queens and Brooklyn, Union and Middlesex.