

**POPULATION AND ECONOMIC PATTERNS IN NORTHERN MEGALOPOLIS:  
1950-1960 AND 1970-1980**

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In 1961 Dr. Jean Gottmann published his famous book *Megalopolis* under the auspices of the Twentieth Century Fund, Inc. Gottmann was a Professor of Geography at the University of Paris; however, most of the research for the book was done while he was working at the Institute for Advanced Study at Princeton.<sup>1</sup> It may seem rather ironic that it took a foreign geographer to see the northeastern seaboard of the United States from a new perspective, but throughout the history of research this has not been an uncommon situation. Prior to the publication of Gottmann's book, American scholars traditionally divided the northeastern states up into the New England, Middle Atlantic, and South Atlantic regions of the United States. These regional divisions still have validity today and they are still used by the Census Bureau.<sup>2</sup> However, Gottmann realized that despite the long-standing cultural differences between the various states in the northeast, the people of this region were increasingly tied together by the forces of transportation, communication, economic change, and urbanization. For this reason, Gottmann sub-titled his book "The Urbanized Northeastern Seaboard of the United States."<sup>3</sup>

Gottmann's *Megalopolis* must be considered one of the classic works on the geography of the United States. It was a herculean study that took approximately twenty years of research. Among the impressive contributions of the book are the 227 illustrations (primarily maps) covering everything from "Per Cent of Farms Operated by Tenants, in Megalopolis, in 1954" to "Highway Traffic Flow in

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<sup>1</sup>Jean Gottmann, *Megalopolis* (Cambridge, MA: MIT Press, 1961), p. viii.

<sup>2</sup>U.S. Department of Commerce, Bureau of the Census, *Statistical Abstract of the United States, 1984* (Washington, D.C.: Government Printing Office, 1985), p. 11.

<sup>3</sup>Gottman, op. cit., footnote 1, p. v.

Megalopolis, 1957-58."<sup>4</sup> It also contains twenty-seven statistical tables. The book's wealth of information and the author's insight have both inspired and served as a basis for a great deal of research, including this study.

#### THE STUDY AREA, PURPOSE, AND METHODOLOGY

This paper focuses on that part of megalopolis that can be defined as Northern Megalopolis. This area covers all of Connecticut, Massachusetts, and Rhode Island in addition to southeastern New York State, northern New Jersey, and two counties in southeastern New Hampshire. The area consists of a total of fifty-seven counties. (Southern Megalopolis will be covered by the author in a future paper.) This study focuses on two variables, population density and percentage of population change, as indicators of demographic and economic change at the county level. This change is documented by comparing maps based on data published by Gottmann and the U.S. Census Bureau. The purpose of this paper is to compare the demographic and economic structure of Northern Megalopolis as found by Gottmann in 1960 with the structure of the region as of 1980. It is obvious that the totality of the demographic and economic structure of a region cannot be described by just two variables. However, it should be understood that the mapping and analysis of these variables certainly are important indicators of the structure of the region at different points in time.

#### POPULATION DENSITY IN 1960

The first variable that is analyzed is gross population density. The population density per square mile for Northern Megalopolis in 1960 is shown in Map 1.<sup>5</sup> The most striking feature of this map is the clustering of those counties having a population density greater than 1,000 persons per square mile. Two such clusters are readily apparent. The first cluster encompasses the counties of Suffolk (Boston), Essex, Middlesex and Norfolk in Massachusetts and adjacent Providence and Bristol counties in Rhode Island. The second very high population density cluster is centered on the five counties that constitute

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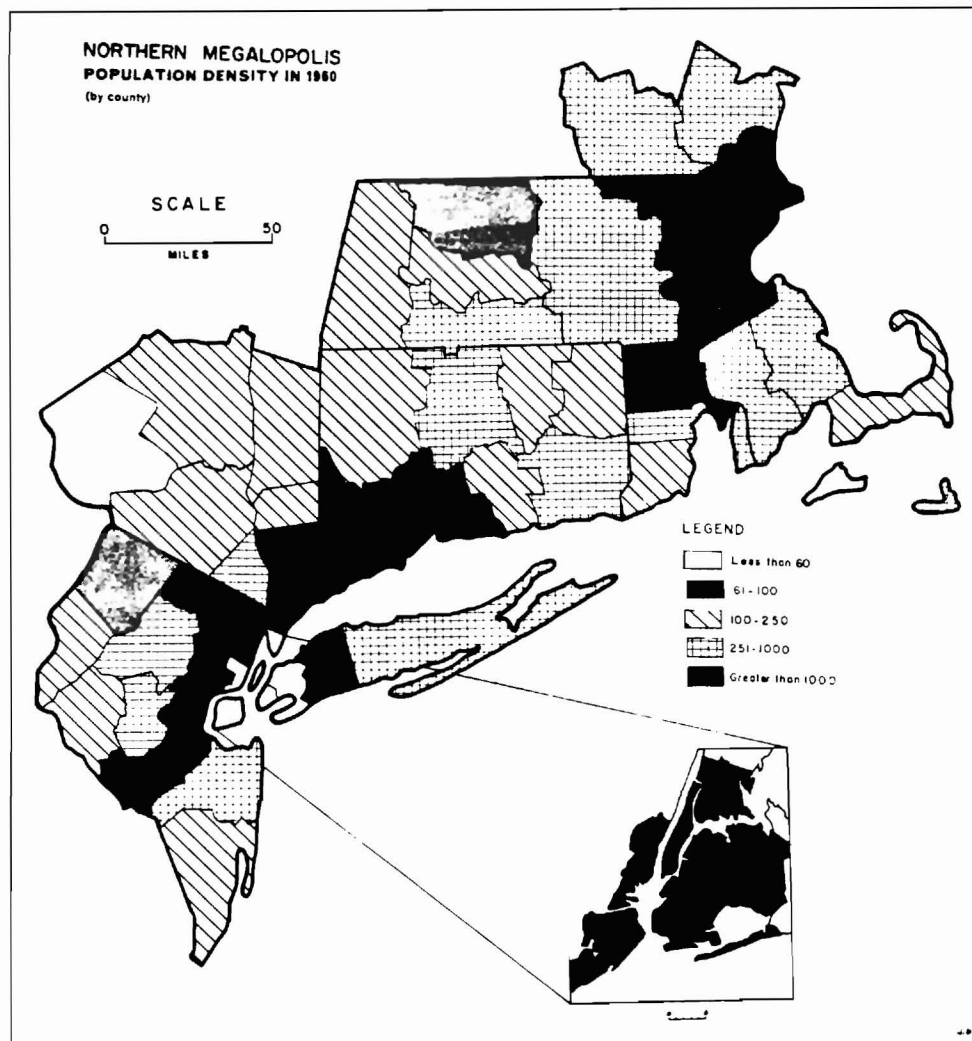
<sup>4</sup>Gottmann, op. cit., footnote 1, pp. 783-90.

<sup>5</sup>In order to facilitate the discussion of this and subsequent maps, names of major cities are parenthetically noted.

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New York City: New York, Bronx, Kings, Queens, and Richmond. The adjacent suburban counties of Nassau and Westchester also were in this high density category in 1960. From Westchester, the high density cluster extended northeastward to include Fairfield and New Haven counties in Connecticut. Similarly, this cluster extended southwestward in a corridor across northern New Jersey to encompass the counties of Bergen, Passaic (Paterson), Hudson (Jersey City), Essex (Newark), Union, and Mercer (Trenton).

Map 1. 1960 Population Per Square Mile in Northern Megalopolis



(Data source: Jean Gottmann, *Megalopolis*, p. iii.)

The second most densely populated group of counties on the 1960 map (counties with 251 to 1,000 persons per square mile) tend to be located in concentric rings surrounding the most densely populated counties. Thus, in the Boston-Providence region, we find three counties in eastern Massachusetts, two counties in New Hampshire, and two in Rhode Island in this category. Similarly, in the New York-New Jersey region, five suburban counties were included in this category. In addition, in the Connecticut River Valley, Hampden County (Springfield), Massachusetts; and Hartford County, Connecticut were in this category of second highest density in 1960.

As one would predict, the less densely populated counties in 1960 were located at the periphery of the largest urban centers of Northern Megalopolis. The counties in the category of fewer than 60 persons per square mile were Sullivan County in New York and Dukes County in Massachusetts. In the category of 61 to 100 persons per square mile only Franklin County, Massachusetts and Sussex County, New Jersey were represented. All four of these counties are in relatively remote, peripheral locations: One county is an island (Dukes County is better known as Martha's Vineyard) and the other three have rugged terrain and a substantial percentage of their areas are devoted to state parks. It is not at all surprising that they had population densities far below the remainder of Northern Megalopolis.

#### POPULATION DENSITY IN 1980

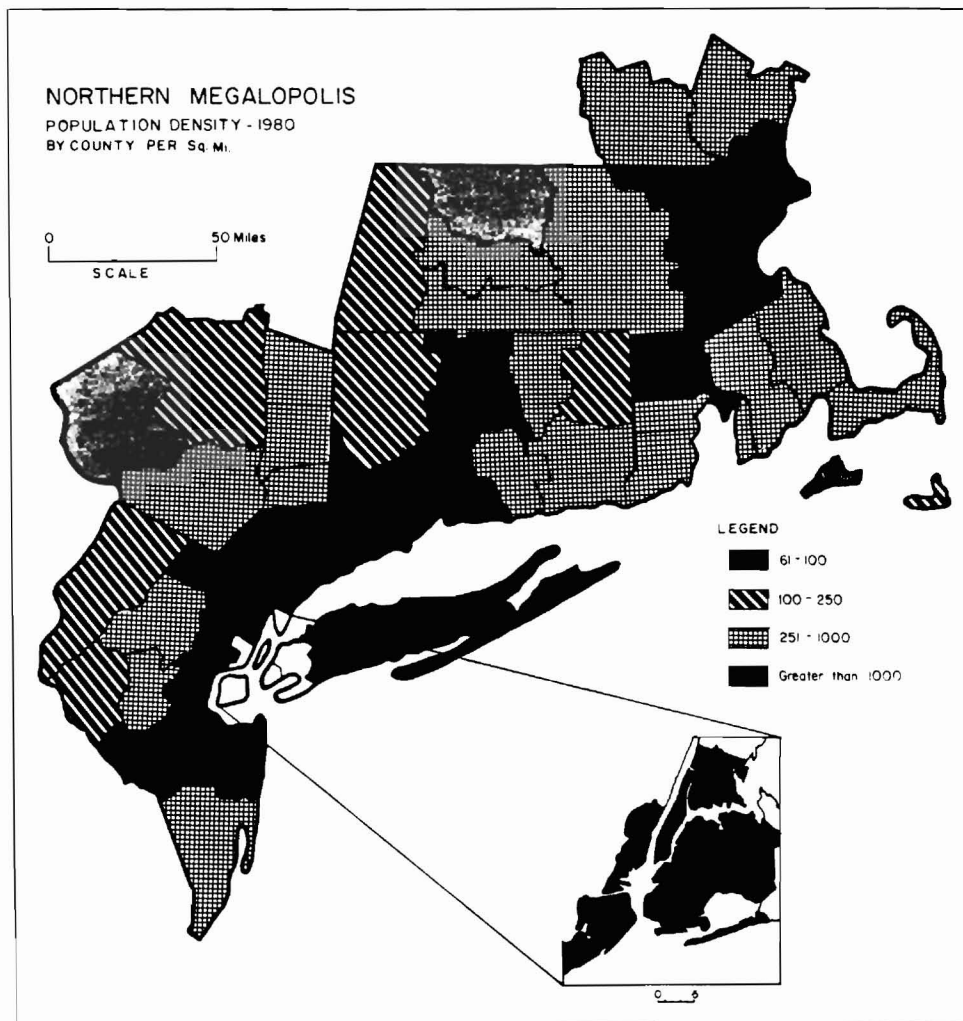
Map 2 displays the population density patterns for Northern Megalopolis based on 1980 census data. The same counties had the highest densities in the Boston-Providence region as in 1960. However, looking to the south in the New York-New Jersey-Connecticut sector, the situation is quite different. On the 1980 map Suffolk and Rockland counties in New York, Hartford County in Connecticut, and Monmouth County in New Jersey were all new additions to the group of most densely populated counties. Thus, in 1980, we can clearly identify an impressive corridor of twenty contiguous counties of high density extending from the Connecticut Valley all the way to the Jersey shore. The increase in population density in the four new counties of the New York-New Jersey-Connecticut sector seems to suggest that the forces of suburbanization and economic growth in peripheral counties were stronger in this part of the study area during the 1960s and 1970s than they were in the Boston-

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Providence sector.

The 1980 map also indicates that a number of counties that increased their population densities to the category of 251 to 1,000 persons per square mile by 1980. Among these counties were: Barnstable (located on Cape Cod) and Hampshire (Northampton city) counties in Massachusetts; Washington County in Rhode Island; Middlesex and Tolland counties in Connecticut; Putnam, Dutchess and Orange counties in the booming Hudson River Valley of New York; and Ocean County in the shore area of New Jersey.

Map 2. 1980 Population Per Square Mile in Northern Megalopolis



(Data source: 1980 Census of Population and Housing)

By comparing Maps 1 and 2, it is apparent that by 1980 there were no counties with population densities less than 60 persons per square mile. The counties in that category in 1960, (Sullivan County, New York and Dukes County, Massachusetts) moved into the category of 61 to 100 persons per square mile in 1980. Nevertheless, the general pattern for both the 1960 and 1980 maps included the least densely populated counties primarily at the periphery of the study area and far from the largest cities of Northern Megalopolis.

Many of the least densely settled counties are characterized by mountainous terrain as in Sullivan County, New York or are off-shore islands as in the case of Dukes County, Massachusetts. An apparent exception to this pattern is the case of lightly populated Windham County, Connecticut, which is directly adjacent to densely populated Providence County, Rhode Island. In 1980, Windham County had a density of just 179.2 persons per square mile, whereas the density in Providence County was 1,373.0 persons per square mile.<sup>6</sup> A difference of this magnitude is quite unusual among adjacent counties in the study area. It will be interesting to watch the growth of these two counties to see if future development patterns tend to lessen this apparent discrepancy in density.

#### PERCENTAGE CHANGE IN POPULATION, 1950-1960

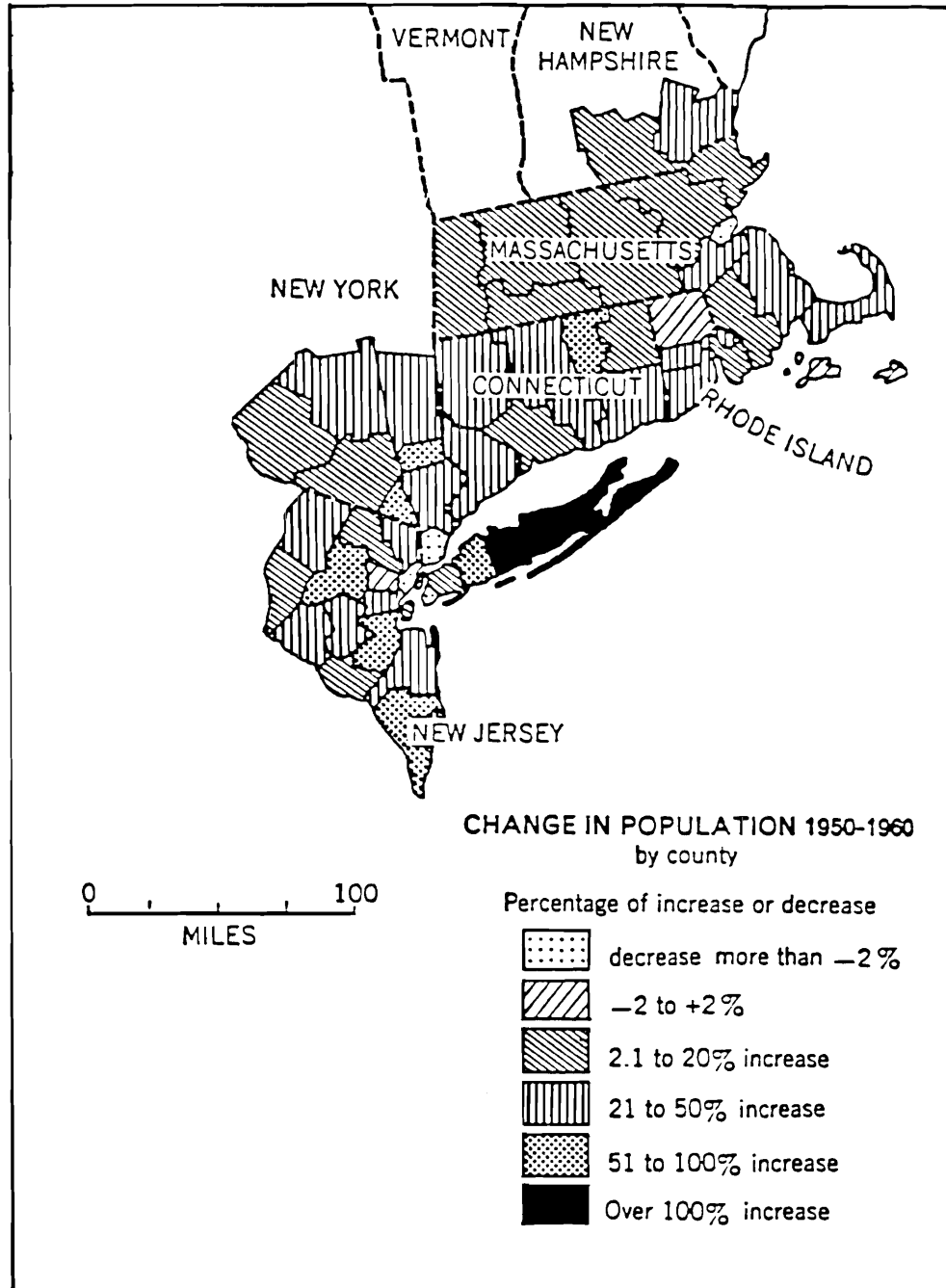
The analysis of population densities illustrated on Maps 1 and 2 naturally leads to the analysis of population change as displayed on Maps 3 and 4. Map 3 indicates the percentage population change from 1950 to 1960 for each county in Northern Megalopolis. One of the most important patterns is that five counties suffered a population decrease of greater than 2% during this period. The five counties were: Suffolk (Boston), Massachusetts; Hudson, New Jersey; and New York, Bronx, and Kings in New York City. In addition, Bristol and Providence counties in Rhode Island and Essex County (Newark) in New Jersey experienced population changes ranging between -2% and +2%.

Suffolk County, New York displayed the highest growth rate of any county on Map 3; it was one of the fastest growing counties in the United States during the 1950s. It is therefore not surprising that this

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<sup>6</sup>U.S. Department of Commerce, Bureau of the Census, *County and City Data Book, 1983* (Washington, D.C.: Government Printing Office), p. 74, 480.

Map 3. Percentage Population Change in Northern Megalopolis, 1950-1960



(Data source: Jean Gottmann, *Megalopolis*, p. 41.)

county was the only one in Northern Megalopolis which grew by more than 100% between 1950 and 1960.<sup>7</sup> The next highest category of growth was between 51% and 100%. There were seven counties in this category as of 1960. As shown by Map 3, none of these counties were in Massachusetts, Rhode Island or New Hampshire; they were all suburban counties in New York, New Jersey and Connecticut. This again suggests that the rate of suburbanization was higher in these states than in the northern sector of the study area.

#### PERCENTAGE CHANGES IN POPULATION, 1970-1980

Map 4 illustrates the percentage population change for all counties in Northern Megalopolis from 1970 to 1980. This map indicates that from 1970 to 1980 only two counties grew in population by more than 51%. These fast-growing counties were Ocean County in New Jersey, and Barnstable County in Massachusetts. It is interesting to note that both of these counties are ocean resort counties on the periphery of large, metropolitan areas. The next fastest growing group of counties in 1980 also consisted of counties on the outer periphery of the large cities of the study area. This category (21% to 50% increase) included two counties in New Hampshire, three peripheral counties in eastern Massachusetts, and four inland counties in New York and New Jersey.

Probably the most striking feature of Map 4 is the distribution of counties which lost more than 2% of their population between 1970 and 1980. This category encompassed four counties in Massachusetts. In eastern Massachusetts, the old, industrial counties of Suffolk (Boston) and Middlesex both experienced sharp declines. This finding is quite surprising since during this period the Boston region experienced substantial job growth and prosperity.<sup>8</sup> This seems to conform to the observation that the Northeast as a whole is still in a long-term population decline and that a major restructuring of

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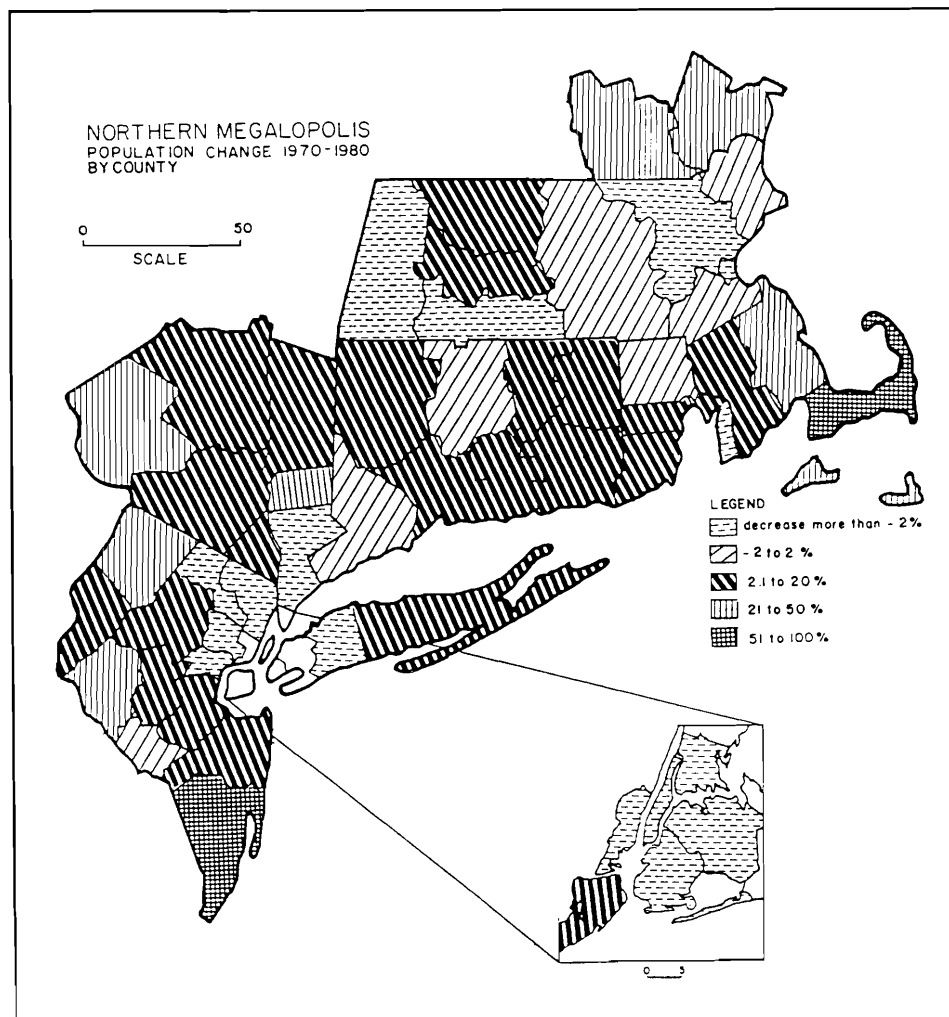
<sup>7</sup>U.S. Department of Commerce, Bureau of the Census, *1960 Census of Population and Housing* (Washington, D.C.: Government Printing Office, 1963).

<sup>8</sup>James J. Howell, "The Revitalization of New England Cities," in *The Future of Winter Cities*, Gary Gappert, ed. (Newbury Park, CA: Sage Publications, 1985), p. 302.



the entire region's economy will be necessary if this decline is to be reversed.<sup>9</sup> In western Massachusetts, highly urbanized Hampden County (Springfield) and rural Berkshire County also declined by more than 2%. Newport County, Rhode Island also belonged to this category in 1980.

Map 4. Percentage Population Change in Northern Megalopolis, 1970-1980



(Data source: 1980 Census of Population and Housing.)

<sup>9</sup>George Steynlieb and James W. Hughes, *Revitalizing the Northeast* (New Brunswick, NJ: The Center for Urban Policy Research, Rutgers, 1978), pp. 74-81.

The most extreme population decrease as of 1980 was in New York City and its suburbs. In this area, fully eleven, contiguous counties experienced a population decrease of more than 2%. Of these counties, four were in New York City, two (Nassau and Westchester) were in the New York State suburbs of New York City, and five were in New Jersey. It should be noted that all of the suburban counties in this category were older, inner suburban counties close to New York City. In addition, during this decade both New York City and New York State experienced severe fiscal crises and the loss of large numbers of jobs, especially in the secondary sector of the state economy.<sup>10</sup> The ultimate result of these factors was that from 1970 to 1980 the state suffered a net population decrease of -3.8%.<sup>11</sup> This was an enormous decline to occur for a state with such a large total population base. Only one other state experienced an absolute decline in population from 1970 to 1980; that was Rhode Island which experienced a decline of -3%, less than one-tenth the magnitude of New York's decrease.<sup>12</sup> It should also be noted that during this ten year period, the United States' population by 11.4% and the population of California grew by 18.5%.<sup>13</sup> Referring back to Map 4, it is clear that while there was substantial growth in the outer suburban counties, the most important phenomenon was the massive population decline that occurred in most of New York City and its nearby inner suburban counties in both New York and New Jersey. This phenomenon accounted for most of the population loss suffered by New York State during this period.

#### SUMMARY

The preceding analyses have shown that Northern Megalopolis experienced some momentous population and economic changes between 1950 and 1980. During the 1950-1960 period, substantial

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<sup>10</sup>Roger Starr, *The Rise and Fall of New York City* (New York: Basic Books, Inc., 1985), pp. 68-69.

<sup>11</sup>Joseph H. Turek, "The Northeast in a National Context: Background Trends in Population, Income and Employment," in *Economic Prospects for the Northeast*, Harry W. Richardson and Joseph H. Turek, eds. (Philadelphia: Temple University Press, 1985), p. 34.

<sup>12</sup>Ibid.

<sup>13</sup>U.S. Department of Commerce, Bureau of the Census, *1980 Census of Population and Housing* (Washington, D.C.: Government Printing Office, 1982).

population declines were found only in a few very densely populated counties that included old central cities such as Boston, New York City, and Jersey City. Substantial population growth was nearly ubiquitous in the suburbs, even in the older, inner suburban counties. Some "younger" suburban counties, notably Suffolk County, New York experienced explosive rates of growth in this period. However, during the 1970 to 1980 period this situation changed dramatically. The areas of absolute decline expanded greatly to include not only the counties containing large central cities, but also most of the older, inner suburban counties of the study area. Most of the population growth in Northern Megalopolis in this period was confined to less urbanized counties at the periphery of the metropolitan areas of the region. However, even here there was weakness in growth rates as evidenced by the absolute population decline suffered by Berkshire County, Massachusetts from 1970 to 1980.

With regard to population density, Northern Megalopolis also experienced some significant changes during the time frame covered by this study. The population migration out of the central cities naturally led to a gradual rise of population densities in the suburban and peripheral counties between 1960 and 1980. However, this increase was far more pronounced in the suburban counties of New York City in New York State, New Jersey and Connecticut than it was in the suburbs of Boston or Providence. With regard to the greater New York area, it is significant to note that the 1980 analysis of population density identified a vast corridor of counties with more than 1,000 persons per square mile. This corridor encompassed twenty contiguous counties extending from Hartford County, Connecticut to Monmouth County on the Jersey shore. This fact suggests that, at least for this segment of the study area, the years from 1960 to 1980 were a period of substantial urban sprawl outward from the central cities.

Finally, it is apparent that future population trends in Northern Megalopolis will be strongly influenced by the strength and competitiveness of the region's economy. As noted previously, the decade of the 1970s was in many ways a period of very difficult economic readjustment for the state of New York. These economic difficulties were not just confined to New York State but were common

throughout the Northeast during this time period.<sup>14</sup> It appears that the economies of New York State and Northern Megalopolis in general have improved during the 1980s. However, the degree to which this economic improvement will be translated into population growth remains to be seen. It will certainly be the subject of further research by this writer.

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<sup>14</sup>Steynlieb and Hughes, op. cit., footnote 9, p. 68.