New Jersey Long-Range Transportation Plan 2030

Task 7.3 – Demographic Analysis
Technical Memorandum

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New Jersey Department of Transportation

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1. Summary

A long-range transportation plan must address the needs and expectations of the users of the transportation system. Identifying changes in the demographic characteristics of New Jersey's citizens is essential to determine how these needs may have altered and to enable NJDOT and NJ TRANSIT to focus transportation resources where they are needed. Shifts in demographics also indicate possible trends and help planners to anticipate longer-term needs. Decisions made and actions taken today could have profound effects on the future system and its users.

New Jersey's population continues to grow.[1] Between 1990 and 2000, the number of people who live in the state grew by 8.9%, faster than neighboring states but at a slower rate than the US as a whole. Because of the state's primarily urban/suburban nature, this increase means the state became even denser, with 1,134 people per square mile. This makes New Jersey the most densely populated state in the country, 14 times denser than the national average of 80 people per square mile. The densest areas for both population and employment spread to the west and south of the northern New Jersey/New York City metropolitan area.

The growth in population was accompanied by a slower growth in employment opportunities of 6.3%.[2] More than half the work force who made New Jersey their home between 1990 and 2000 traveled outside the state to work, but only 20% of new employees in the state came from outside New Jersey. New Jersey's strategic position in the national and global marketplace, however, prevented an increase in unemployment and in fact resulted in the highest median income per family in the nation, $55,000. In fact, the percentage of New Jersey households with incomes of $150,000 and above tripled in the past decade. At the same time, however, the number of households considered to be below the poverty level increased slightly (from 7.7% to 8.3%).

New Jersey's population also became even more diverse, primarily as the result of a major influx of Asian and Hispanic immigrants. The state's Asian population increased by 77%, and the number of Hispanic residents grew by 51%. More than one-half of New Jersey's Asian residents are concentrated in Bergen and Hudson counties and along the Northeast Corridor in Middlesex County. Many of these residents work in New York City and, to a lesser extent, Philadelphia.

In general, New Jersey's low-income and Black and Hispanic populations are concentrated within the state's major urban centers and along the Northeast Corridor. These locations

[1] The best source of demographic information continues to be the decennial US Census, last conducted in 2000. Changes described here are for the years 1990-2000, unless otherwise noted.

[2] The number of new workers who moved to the state was almost double the number of new net jobs created between 1990 and 2000. This difference was somewhat offset by an increase in the number of people who are not considered part of the labor force, that is, students, individuals taking care of home and family, retirees, seasonal workers in an off-season who are not looking for work, and all institutionalized people.

are rich in public transportation. Since many low-income households do not have access to automobiles, public transportation is essential to get to jobs and for every day needs.

In 2000, more households in New Jersey had no automobiles and fewer households had three or more vehicles than the nation as a whole. The growth in population and employment, coupled with the density of the state's development, nevertheless ensured that congestion would continue to be a major concern.

Not surprisingly, the use of public transportation increased at a faster rate than population growth, as a large number of immigrants settled where it is available. Commuter and light rail riders increased by 21.6%, while bus ridership rose 1.4% between 1998 and 2003.[3]

Although the age distribution of the state's population changed only slightly in the past decade, a very important trend can be seen as the population as a whole gets older. The number of New Jerseyans aged 18 to 34 decreased by 5.5%, while those aged 35 to 44 and 45 to 64 increased by 1.6% and 2.5%, respectively. The first of the Baby Boomers are already beginning to retire, and one in every seven New Jersey adults will be age 65 or older by 2030, a jump of 76 percent from today.

Significantly, more than one in five (21%) of Americans 65+ do not drive.[4] As important, for the most part this group is uniformly scattered throughout the state. Ensuring mobility for people who may choose to continue driving when they are no longer physically able to do so safely, as well as for those who must rely on public transportation, will become an increasing challenge in the future.

Although the number of people using public transportation to get to work grew, and continues to be much higher than the national average, some 73% of workers drive alone to work, despite the heavy rush hour congestion this generates. New Jersey's commuters are spending more time on the road and driving farther to their jobs than ever before. Largely because of suburban sprawl, workers now spend an additional 4.7 minutes traveling to work than they did in 1990, 4.5 minutes more than the national average. In addition, more than 100,000 additional people now take 90 minutes or more just to get to work. People are leaving their homes earlier to travel the same distance, and the peak hours are spreading.

The implications of the demographic changes described in detail in this memorandum can be summarized as follows:

- New Jersey has more residents and more people working here than ever before; the capacity of its highway infrastructure is being rapidly consumed. In view of several constraints that limit the ability to add capacity via new construction, the state must find new ways to achieve smart growth in concert with smart transportation, increase

[3] These numbers are somewhat skewed because NJ TRANSIT significantly increased the availability of light rail transit during that period. The ridership numbers reflect both a net increase and a movement from bus to light rail in areas now served by both.

[4] Surface Transportation Policy Project, *Aging Americans: Stranded Without Options*, 2004.

the efficiency of its existing roadway network and reduce demand, particularly the use of single-occupant vehicles.

- Public transportation becomes even more important as the state's highways become saturated. Expanding its capacity and increasing its service is crucial to New Jersey's economic vitality.
- Many of the state's residents cannot afford automobiles, and many others do not drive for other reasons. In addition to providing a way to get to work, public transportation is essential to their quality of life.

2. Population Characteristics

2.1 Population

In 2000, about 8.4 million people lived in New Jersey, making it the 9th most populous state in the country. **Between the 1990 and 2000 censuses, New Jersey's total population increased by 8.9% (684,162),** from 7,730,188 to 8,414,350. This population growth was slower than the national average of 13.2%, reflecting New Jersey's mostly urban and suburban character and its diminishing availability of land for development. New Jersey ranked 33rd among the 50 states in rate of growth, but 14th in terms of absolute growth in population.

Among the nine states in the northeast region of the United States, New Jersey ranked 3rd after New York and Pennsylvania in terms of total population in 2000 (see Figure 2-1). Between 1990 and 2000, the number of people added to the state's population (684,162) was higher than the overall 2000 population of Vermont (608,827).

Figure 2-1: Population of States in the Northeast Region (1990-2000)

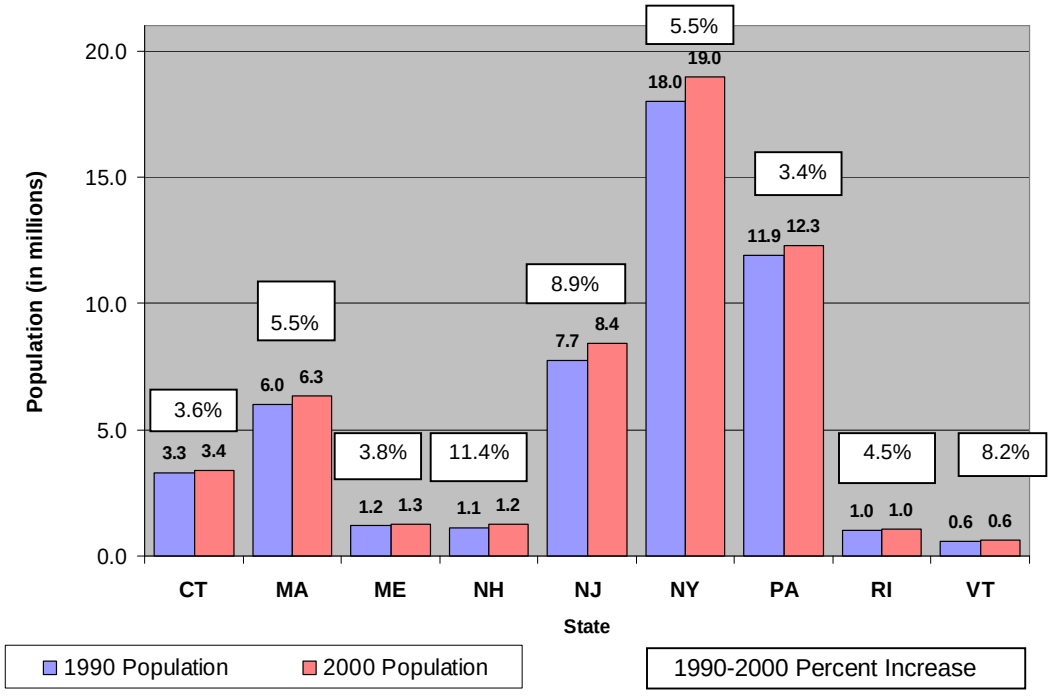


Table 2-1 and Figure 2-2 show the 1990-2000 New Jersey population change by county. Trends at the county level are described below:

- In 1990, Bergen and Essex were the only two counties with populations of more than 750,000. Between 1990 and 2000, **Middlesex County** experienced the **greatest absolute growth in county population** (78,382, as shown in Table 2-1).
- **Salem** was the **only county that experienced a decline in population**. Salem's population decreased by slightly more than 1,000 people, or by 1.5% of its population in 1990.
- **Somerset County** experienced the **greatest percentile growth in population**, with a 23.8% increase.
- The five counties with the highest populations in 1990 (Bergen, Essex, Middlesex, Monmouth and Hudson) maintained their respective positions in 2000 as well. All these counties are in the New York metro region.
- In terms of absolute increase in population between 1990 and 2000, the top five counties were Middlesex, Ocean, Monmouth, Bergen and Somerset. In terms of percentile increase in population between 1990 and 2000, the top five counties were Somerset, Ocean, Hunterdon, Atlantic and Warren. This demonstrates a new trend in population growth as it shifts to the west and south (see Figure 2-2), largely because the New York metropolitan area is becoming saturated, with limited potential for further population growth.

Table 2-1: Change in Population by County (1990-2000)

County	1990 Population Number	2000 Population Number	Change, 1990 to 2000 Number	Change, 1990 to 2000 Percentage
Atlantic	224,327	252,552	**28,225**	**12.6**
Bergen	825,380	884,118	**58,738**	**7.1**
Burlington	395,066	423,394	**28,328**	**7.2**
Camden	502,824	508,932	**6,108**	**1.2**
Cape May	95,089	102,326	**7,237**	**7.6**
Cumberland	138,053	146,438	**8,385**	**6.1**
Essex	778,206	793,633	**15,427**	**2.0**
Gloucester	230,082	254,673	**24,591**	**10.7**
Hudson	553,099	608,975	**55,876**	**10.1**
Hunterdon	107,776	121,989	**14,213**	**13.2**
Mercer	325,824	350,761	**24,937**	**7.7**
Middlesex	671,780	750,162	**78,382**	**11.7**
Monmouth	553,124	615,301	**62,177**	**11.2**
Morris	421,353	470,212	**48,859**	**11.6**
Ocean	433,203	510,916	**77,713**	**17.9**
Passaic	453,060	489,049	**35,989**	**7.9**
Salem*	65,294	64,285	**-1,009**	**-1.5**
Somerset	240,279	297,490	**57,211**	**23.8**
Sussex	130,943	144,166	**13,223**	**10.1**
Union	493,819	522,541	**28,722**	**5.8**
Warren	91,607	102,437	**10,830**	**11.8**
NJ Total	**7,730,188**	**8,414,350**	**684,162**	**8.9**

** Salem is the only NJ county that experienced decline in population between 1990 and 2000*

Figure 2-2: Population Change by County (1990-2000)

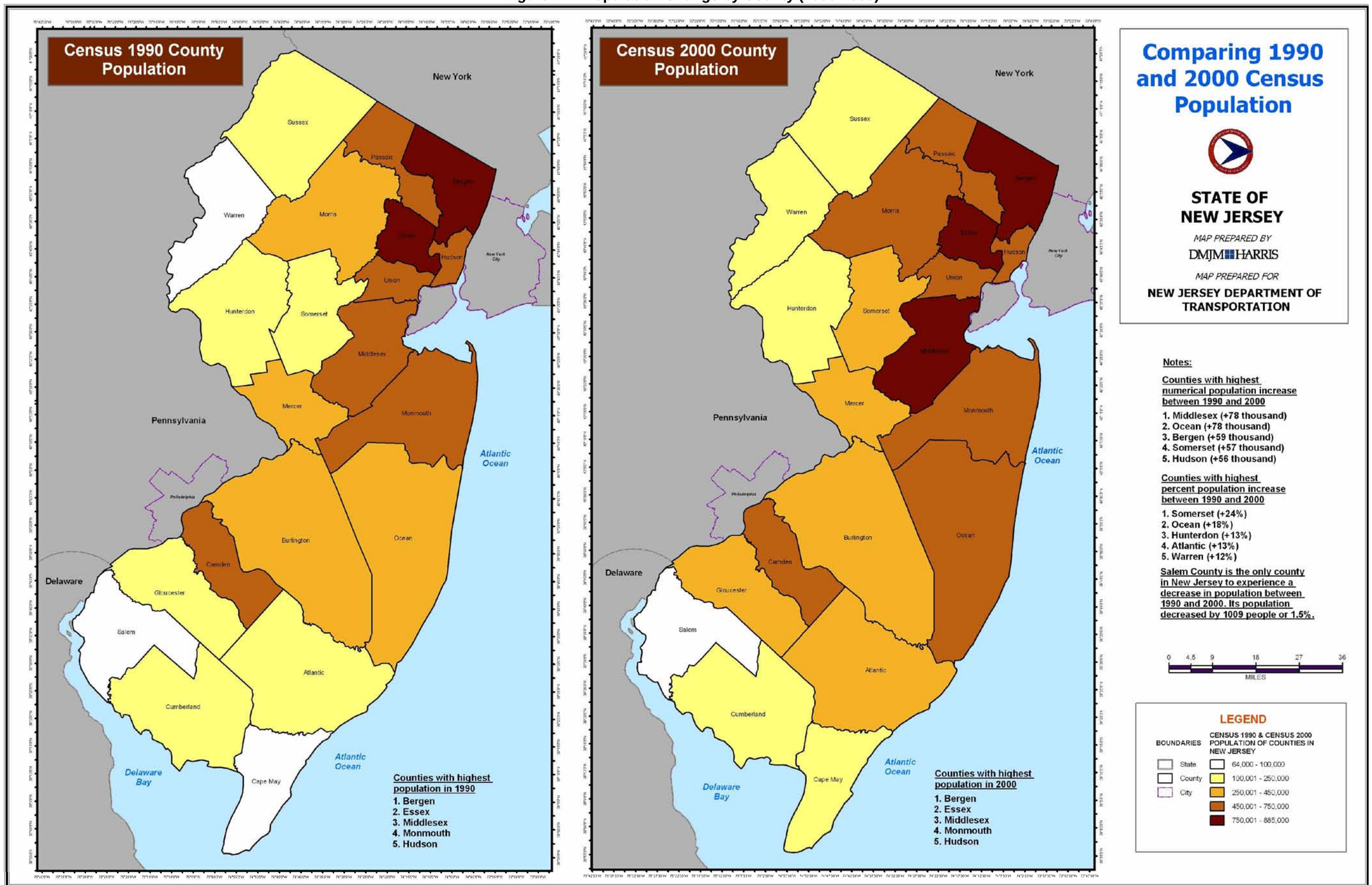


Figure 2-3: Population Change by Tract (1990-2000)

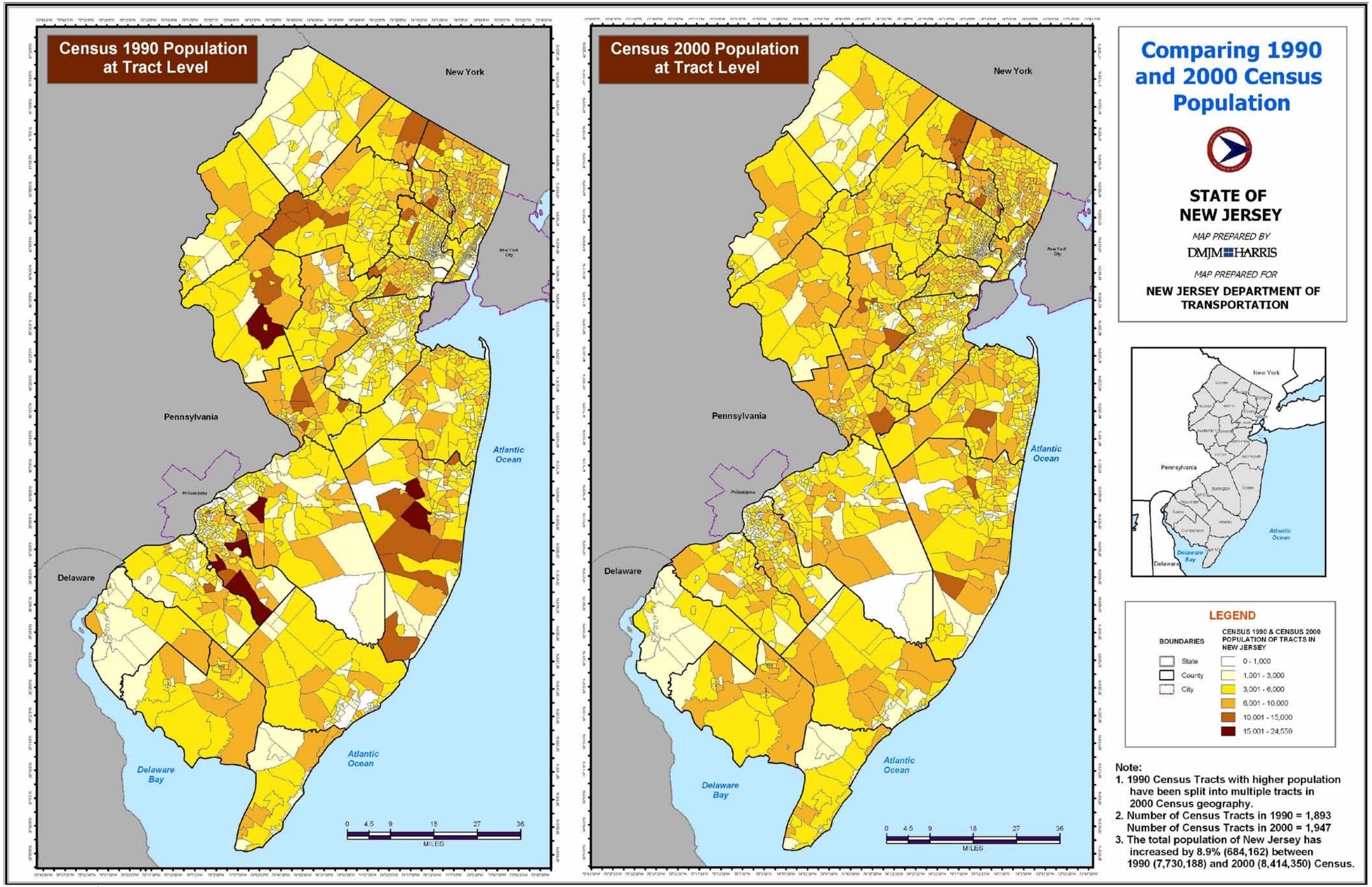


Figure 2-3 compares the 1990 and 2000 populations at the census tract level to illustrate specific growth areas within each county. It should be noted that several 1990 census tracts with higher population were divided into multiple census tracts in 2000; thus, the 2000 map gives a false visual impression of a lower population in some areas compared to 1990.

Figures 2-2 and 2-3 show that the **expansion of the existing New York metropolitan area towards the west and south** is mainly influenced by the availability of primary transportation corridors connecting major employment centers in the metropolitan area with the outlying residential suburbs. Figure 2-2 shows that the westward population growth trend is mainly in Morris and Somerset counties, which are served by the I-80 and I-78 corridors, respectively. Similarly, the southward growth trend is demonstrated by increases in Middlesex and Ocean counties, which are served by the NJ Turnpike and Garden State Parkway, respectively, and by NJ TRANSIT's Northeast Corridor and North Jersey Coast lines. Convenient access is among the several drivers behind the high population growth in Middlesex County between 1990 and 2000.

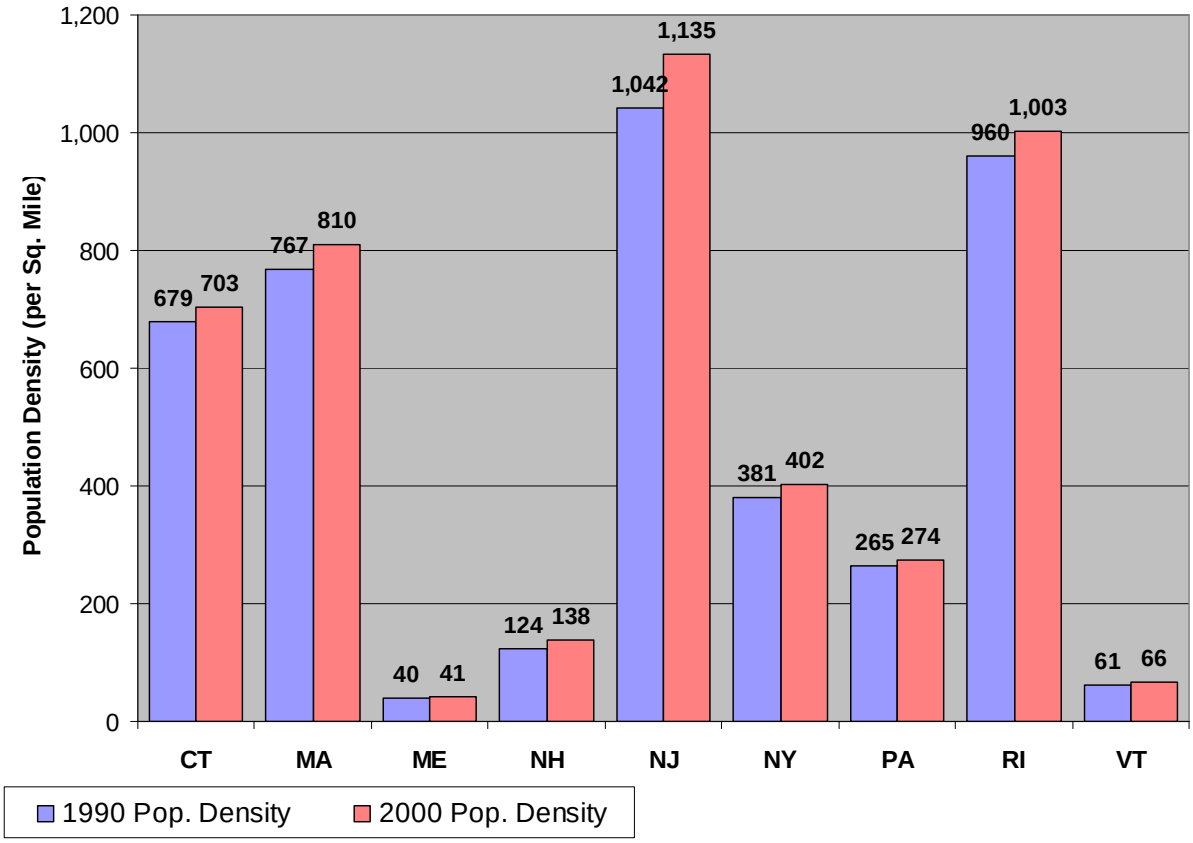
Figures 2-2 and 2-3 also show that, although the New York metropolitan area expanded westward and southward, there was **neither expansion nor significant growth in the Philadelphia metropolitan area** between 1990 and 2000. Burlington, Camden, Gloucester and Mercer counties showed low to moderate population growth.

The population growth trends observed between 1990 and 2000 and their potential impacts on the transportation system strengthen the importance of the smart growth initiative already undertaken by the New Jersey Department of Transportation.

2.2 Population Density

In 2000, New Jersey continued to rank 1st in the United States, with a population density (average population per square mile of land area) 14 times greater than the average national population density. New Jersey is one of only two states that have population densities greater than 1000 people per square mile (see Figure 2-4).

Figure 2-4: Population Density of States in the Northeast Region (1990-2000)



New Jersey's spatial distribution of population falls into three distinct areas (see Table 2-2 and Figure 2-5):

- Densely populated New York and Philadelphia metropolitan areas and other big cities that are mostly located in the northeastern part of the state (Hudson, Bergen, Essex, Passaic, Union and Camden counties)
- Moderately populated suburban areas, mostly located in the central part of the state (Middlesex, Mercer, Somerset, Monmouth and Ocean counties)
- Sparsely populated rural areas, mostly located in the northwestern and southeastern parts of the state (Sussex, Warren, Hunterdon, Salem, Cumberland, Cape May and Atlantic counties).

Table 2-2: Change in Population Density by County (1990-2000)

County	1990 Population Density Number (per sq. mile)	2000 Population Density Number (per sq. mile)	Change, 1990 to 2000 Numerical	Change, 1990 to 2000 Percentage
Atlantic	400	450	**50**	**12.6**
Bergen	3,525	3,776	**251**	**7.1**
Burlington	491	526	**35**	**7.2**
Camden	2,262	2,289	**27**	**1.2**
Cape May	373	401	**28**	**7.6**
Cumberland	282	299	**17**	**6.1**
Essex	6,163	6,285	**122**	**2.0**
Gloucester	709	784	**76**	**10.7**
Hudson	11,846	13,043	**1,197**	**10.1**
Hunterdon	251	284	**33**	**13.2**
Mercer	1,442	1,553	**110**	**7.7**
Middlesex	2,169	2,422	**253**	**11.7**
Monmouth	1,172	1,304	**132**	**11.2**
Morris	898	1,003	**104**	**11.6**
Ocean	681	803	**122**	**17.9**
Passaic	2,445	2,639	**194**	**7.9**
Salem	193	190	**-3**	**-1.5**
Somerset	789	976	**188**	**23.8**
Sussex	251	277	**25**	**10.1**
Union	4,781	5,059	**278**	**5.8**
Warren	256	286	**30**	**11.8**
New Jersey	**1,042**	**1,134**	**92**	**8.8**

Population density and the location of major employment centers directly affect the performance of the transportation system. The densely populated northeastern metro areas show significant roadway capacity issues, which will be discussed in the system assessment section of the 2030 Long-Range Transportation Plan. However, population density is also an important factor for determining the feasibility of transit services. A "Transit Score," a factor developed by NJ TRANSIT, indicates the sustainability of transit service primarily on four factors: household density, population density, employment density and zero- and one-car household density. Given serious limitations related to roadway capacity improvements, transit and alternative modes of transportation will play a major role in future.

Managing population density using land use tools like transfer of development rights (TDR), mixed-use developments that encourage walking and bicycling for some trips, and other measures should be a prime consideration. They are necessary to optimize the use of public transportation transit services and other alternative modes if New Jersey is to maintain its transportation system in a state of good repair without significantly expanding roadway capacity.

Figure 2-5: Population Density Change by County (1990-2000)

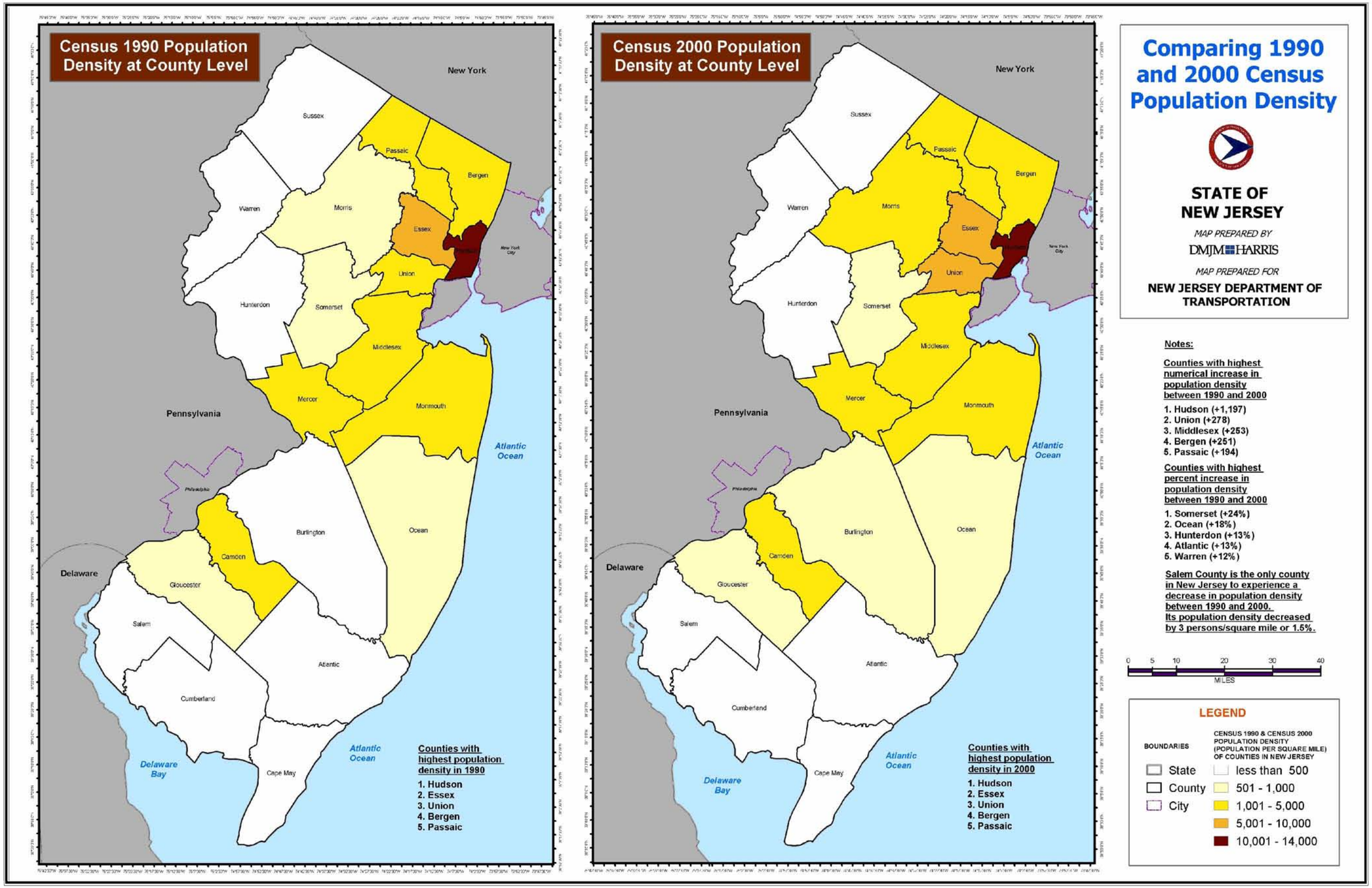
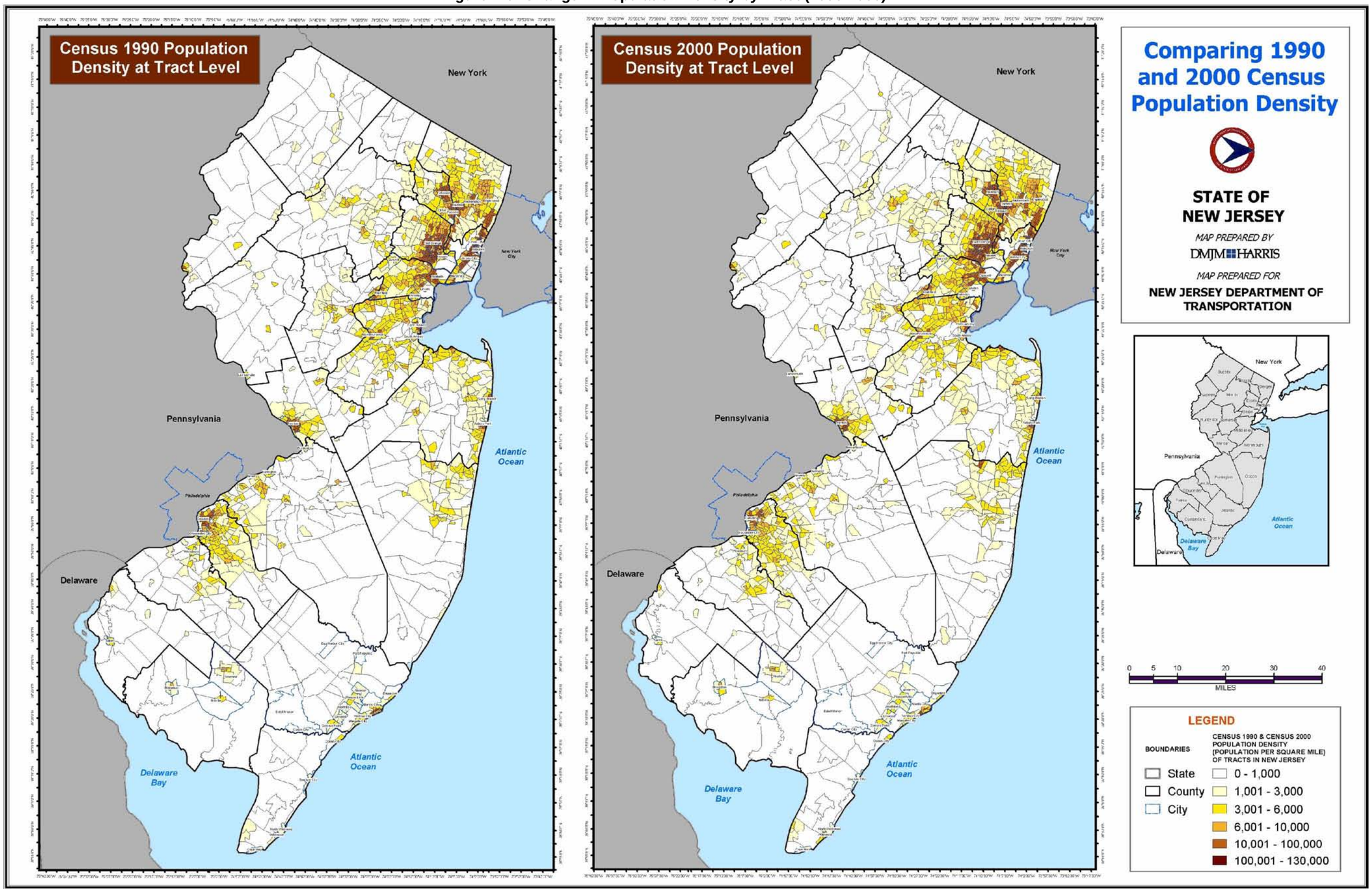


Figure 2-6: Change In Population Density by Tract (1990-2000)



2.3 Race

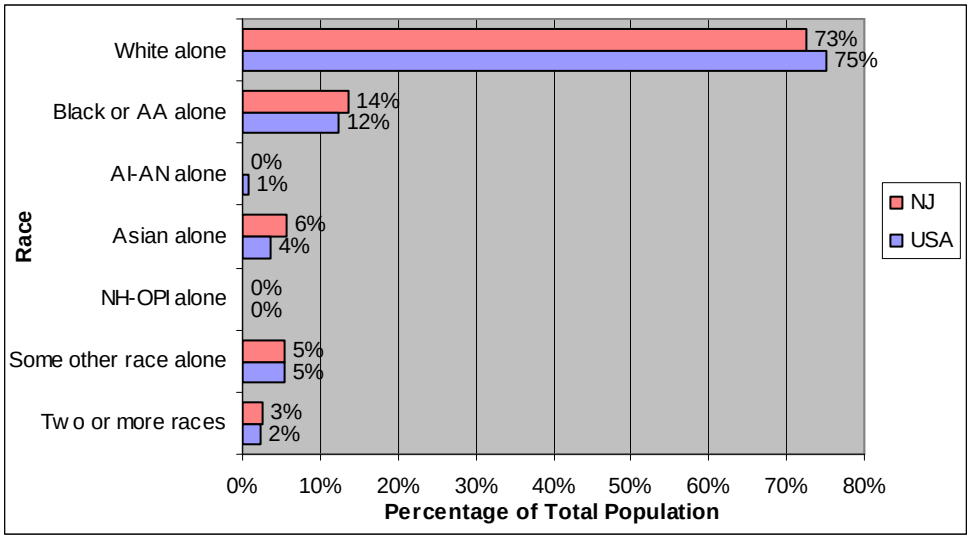
People of many races and ethnicities call New Jersey their home. Table 2-3 and Figure 2-7 show the distribution of New Jersey's population by race and compares it with the national distribution in 2000. The two are strikingly similar.

Table 2-3: Population by Race for New Jersey and the United States (2000)

Race	NJ Number	Percentage	USA Number	Percentage
Total Population	8,414,350	100	281,421,906	100
White alone	6,104,705	73	211,460,626	75
Black or AA alone	1,141,821	14	34,658,190	12
AI-AN alone	19,492	0	2,475,956	1
Asian alone	480,276	6	10,242,998	4
NH-OPI alone	3,329	0	398,835	0
Some other race alone	450,972	5	15,359,073	5
Two or more races	213,755	3	6,826,228	2

Notes:
Black or AA alone: Black or African American alone
AI-AN alone: American Indian and Alaska Native alone
NH-OPI alone: Native Hawaiian and Other Pacific Islander alone

Figure 2-7: Race Distribution in New Jersey and the United States (2000)



- **In 2000, almost 3 of 4 New Jerseyans were White alone.**
  - In addition, the number of those who were White in combination with other races (156,482) was greater than any other race in combination.
  - However, the White population declined somewhat (-25,670 or -0.42%) in the state in 2000 compared to 1990.

- **The number and proportion of African Americans increased during 1990s.**

  - The number of African Americans in New Jersey increased from 1,036,825 in 1990 to 1,141,821 in 2000, a gain of 104,996 (10.1%).
  - The proportion of African Americans in the state's population increased from 13.4% to almost 14% from 1990 to 2000.

- **Asians were by far the fastest growing racial group in the state during the 1990s**
  - Asian population was up by 77.3% (209,437 persons) between 1990 and 2000.
  - With a 2000 population of 480,276, they represented 6% of New Jersey's total population, up from 3.5% in 1990.

- **In the 2000 Census, individuals could identify themselves as being of more than one race for the first time.**
  - Approximately 3% of New Jersey's population identified themselves as multi-racial.
  - The majority of New Jersey's multi-racial population was White and Some Other Race (88,184), African-American and Some Other Race (25,831), African-American and White (23,611) or Asian and White (22,701).

- **Some of the races had more population in combination with some other race compared to population of that respective race alone.**
  - There were more Native Hawaiian or Other Pacific Islander in combination with one or more of the other five races listed (6,736) than persons reported as Native Hawaiian or Other Pacific Islander alone (3,329).
  - American Indian and Alaska Native is another race that has more in combination with other races (29,612) than one race alone (19,492) in New Jersey.

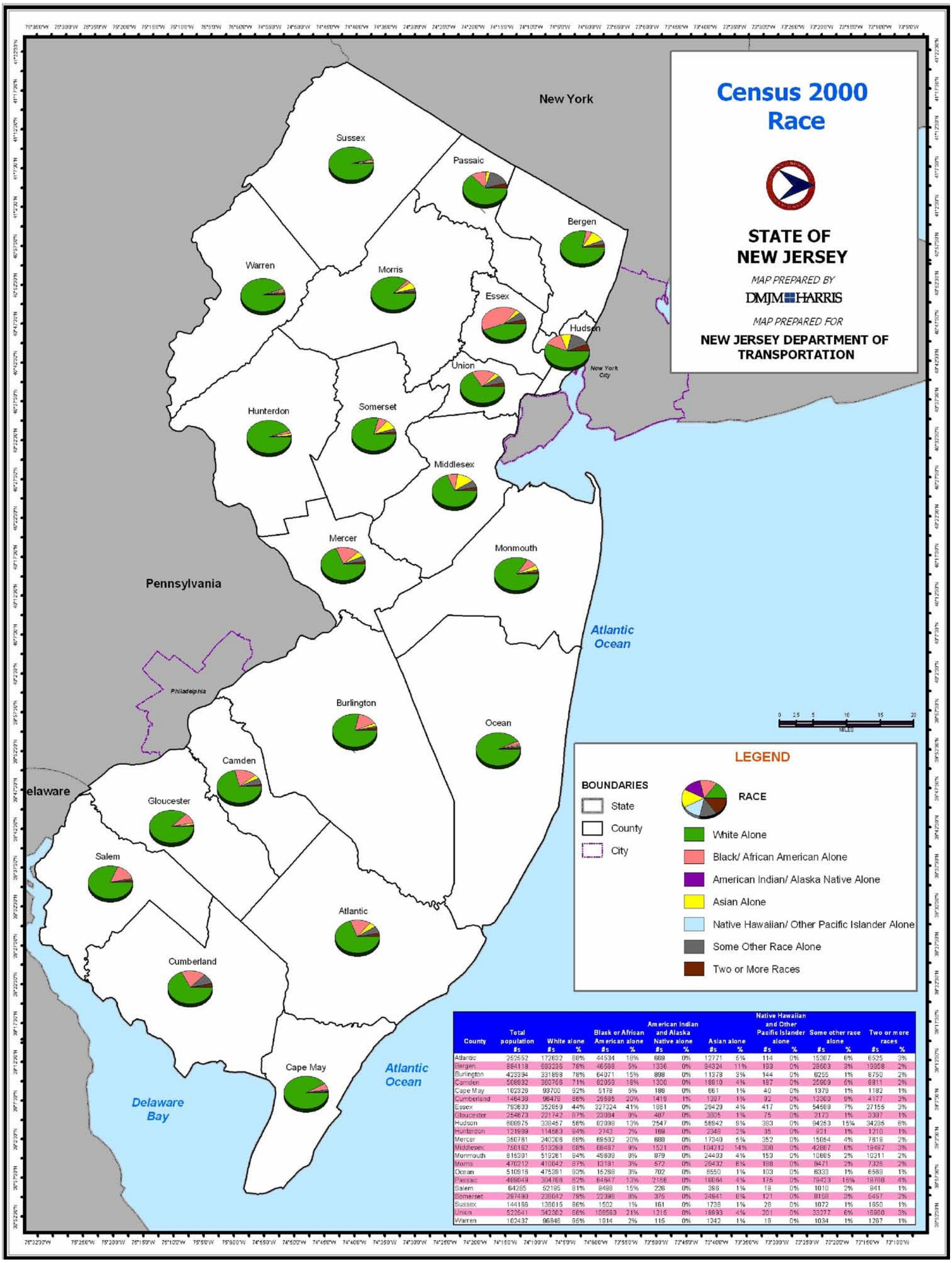
Figure 2-8 shows the 2000 race distribution by county.

- **Counties with the highest proportion of White residents in 2000** - northwestern counties bordering Pennsylvania
  - Sussex (96.8%),
  - Warren (95.7%)
  - Hunterdon (94.9%)

- **Counties with the highest growth rate in White population during the 1990s**
  - Ocean (+15.2%),
  - Somerset (+11.7%)
  - Hunterdon (+10.4%)

- **Counties with the largest increase in white population during the 1990s**
  - Ocean (+62,682)
  - Monmouth (+35,984)

Figure 2-8: Race Distribution by County (2000)



County	Total population	White alone		Black or African American alone		American Indian and Alaska Native alone		Asian alone		Native Hawaiian and Other Pacific Islander alone		Some other race alone		Two or more races	
	#s	#s	%	#s	%	#s	%	#s	%	#s	%	#s	%	#s	%
Atlantic	252552	172692	68%	44534	18%	669	0%	12771	5%	114	0%	15307	6%	6525	3%
Bergen	884118	693236	78%	46568	5%	1336	0%	94324	11%	193	0%	28603	3%	19958	2%
Burlington	423394	331898	78%	64071	15%	898	0%	11378	3%	144	0%	6255	1%	8750	2%
Camden	508932	360768	71%	92059	18%	1300	0%	18910	4%	187	0%	25909	5%	9811	2%
Cape May	102326	93700	92%	5178	5%	186	0%	661	1%	40	0%	1379	1%	1182	1%
Cumberland	146438	96478	66%	29595	20%	1419	1%	1397	1%	92	0%	13300	9%	4177	3%
Essex	793633	352659	44%	327324	41%	1861	0%	29429	4%	417	0%	54588	7%	27155	3%
Gloucester	254673	221742	87%	23084	9%	487	0%	3805	1%	75	0%	2173	1%	3307	1%
Hudson	608975	338457	56%	82098	13%	2547	0%	58942	9%	383	0%	94253	15%	34295	6%
Hunterdon	121989	114563	94%	2743	2%	169	0%	2348	2%	35	0%	921	1%	1210	1%
Mercer	350761	240208	68%	68502	20%	688	0%	17340	5%	352	0%	15054	4%	7819	2%
Middlesex	750162	513298	68%	68467	9%	1521	0%	104212	14%	300	0%	42867	6%	18497	3%
Monmouth	615301	519261	84%	49809	8%	879	0%	24403	4%	153	0%	10685	2%	10311	2%
Morris	470212	410042	87%	13181	3%	572	0%	29432	6%	188	0%	9471	2%	7326	2%
Ocean	510916	475391	93%	15268	3%	702	0%	6550	1%	103	0%	6333	1%	6569	1%
Passaic	489049	304786	62%	84847	17%	2186	0%	18084	4%	175	0%	78423	16%	19788	4%
Salem	64285	52185	81%	9498	15%	226	0%	386	1%	18	0%	1010	2%	941	1%
Somerset	297490	238042	78%	22396	8%	375	0%	24841	8%	121	0%	8168	3%	5457	2%
Sussex	144166	138015	96%	1502	1%	161	0%	1738	1%	28	0%	1072	1%	1650	1%
Union	522541	342302	66%	108593	21%	1216	0%	19993	4%	201	0%	33277	6%	16960	3%
Warren	102437	96846	95%	1814	2%	115	0%	1242	1%	18	0%	1034	1%	1367	1%

- **Counties with the largest decline in white population during the 1990s**
  - Essex (-45,165),
  - Hudson (-42,155)
  - Middlesex (-36,708)

  **Ten counties lost White population during the decade.*

- **Counties with the largest increase in African American population in 1990s**
  - Union (+15,786),
  - Middlesex (+14,838)
  - Essex (+11,062)
  - Camden (+10,394)

  **Essex County - highest proportion of Black or AA residents in 2000 (42.7%)*
  **Sussex County – lowest proportion of Black or AA residents in 2000 (1.1%)*
  **Essex, Union, Camden and Hudson counties accounted for more than one-half (53.4%) of the state's Black population in 2000.*

- **Counties with the largest Asian population in 2000**
  - Middlesex (104,212)
  - Bergen (94,324)
  - Hudson (56,942)

  **More than one in every two (53.2%) Asians in New Jersey were concentrated in these above three counties in 2000.*
  **In 2000, Asians were the largest minority group in Bergen and Middlesex counties.*
  **Highest percentile growth of Asian population was observed in Atlantic County (169.7%) between 1990 and 2000.*

- **Counties with the largest multi-racial population in 2000**
  - Hudson (34,295)
  - Essex (27,155)
  - Bergen (19,958)
  - Passaic (19,788)
  - Middlesex (19,497)

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Figure 2-9: Concentrations of Minority Populations in New Jersey (2000)

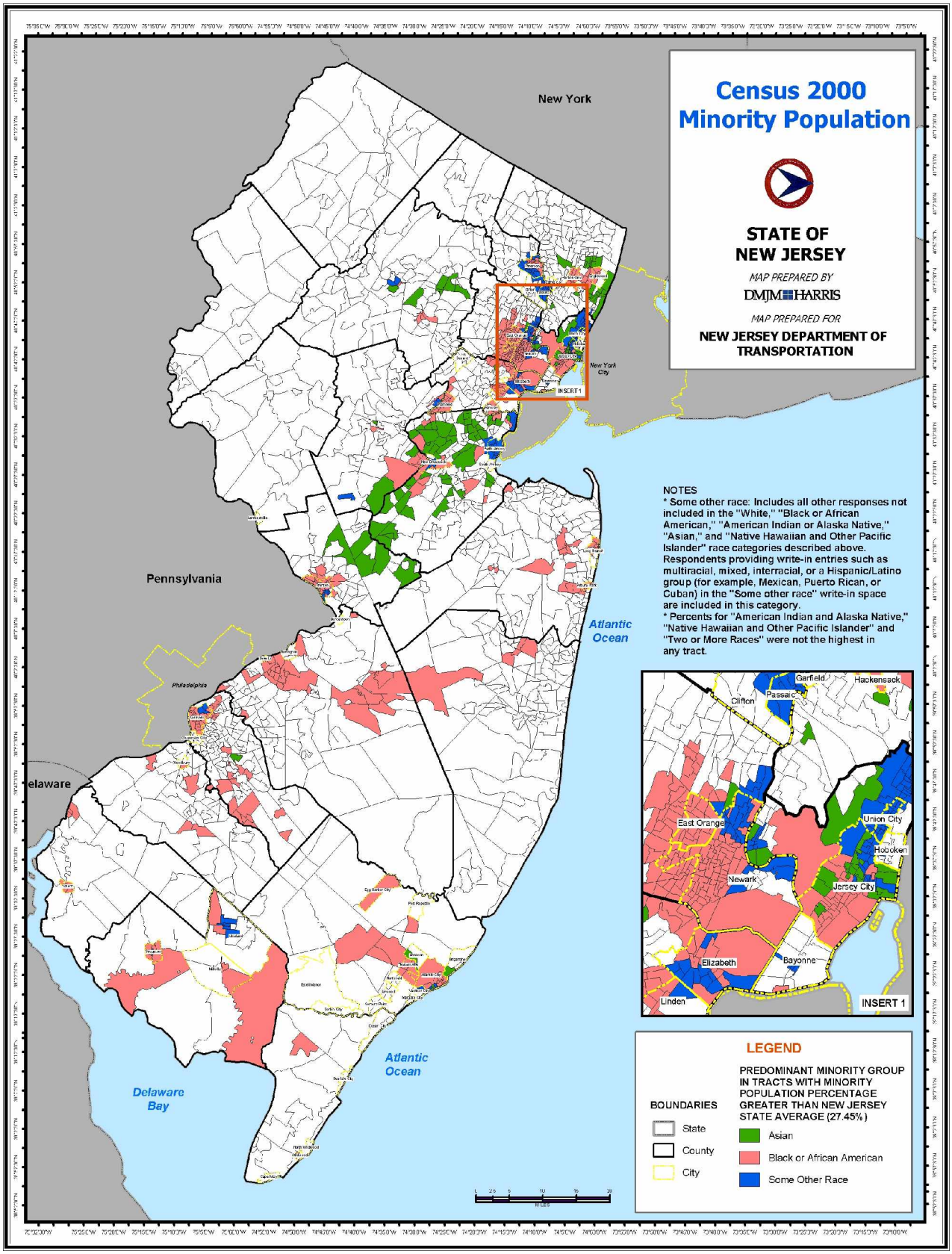


Figure 2-9 shows the census tracts where a particular minority group population was represented by more than the overall minority population statewide average in 2000 (27.45%). Census tracts with higher Black or African American populations are concentrated mostly in and around the eight major urban cities in New Jersey – Atlantic City, Camden, Elizabeth, Jersey City, Newark, New Brunswick, Paterson and Trenton. These areas are generally characterized by low-income households, and many of their residents do not own cars. These types of households tend to concentrate where public transportation is readily available in New Jersey's urban centers.

Census tracts with higher Asian populations are concentrated mostly in suburban areas along the Northeast Corridor. This may be because a significant proportion of the Asian population travels to metro cities like New York and Philadelphia to work.

2.4 Ethnicity

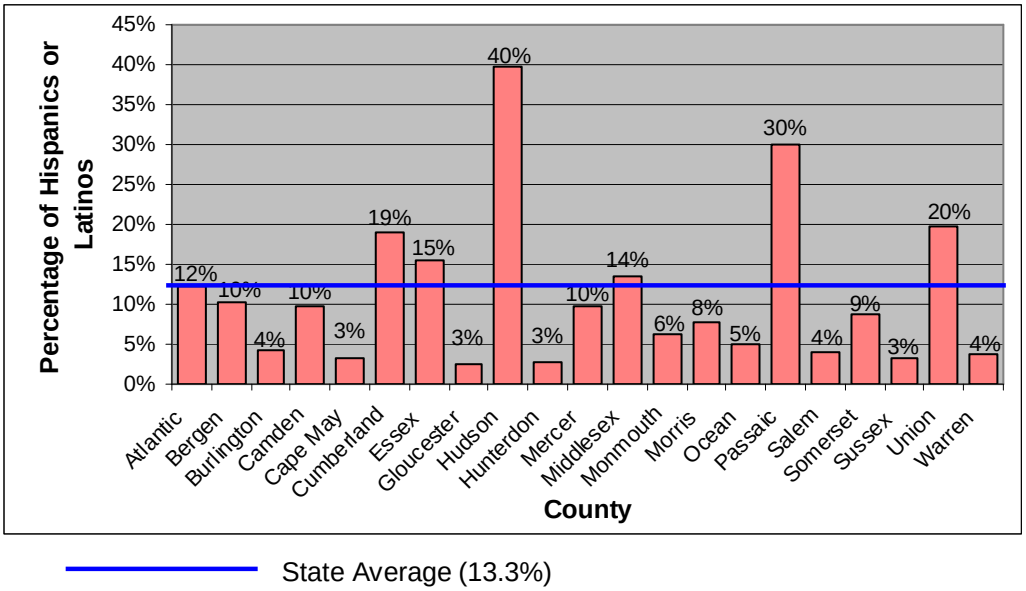
It is important to distinguish between race and ethnicity. A race is a biological subspecies, consisting of a more or less distinct population with anatomical traits that distinguish it clearly from other races. "Ethnicity" refers to selected cultural characteristics used to classify people into groups or categories considered to be significantly different from others. Thus, the populations from more than one race category can identify themselves to be part of a single ethnicity like Hispanic or Latino.

Table 2-4 and Figure 2-10 display Hispanic or Latino population details by county.

Table 2-4: Hispanic/Latino Population by County (2000)

County	Total population	Hispanic or Latino Population	
	Numbers	Numbers	Percentage
Atlantic	252,552	30,729	12
Bergen	884,118	91,377	10
Burlington	423,394	17,632	4
Camden	508,932	49,166	10
Cape May	102,326	3,378	3
Cumberland	146,438	27,823	19
Essex	793,633	122,347	15
Gloucester	254,673	6,583	3
Hudson	608,975	242,123	40
Hunterdon	121,989	3,371	3
Mercer	350,761	33,898	10
Middlesex	750,162	101,940	14
Monmouth	615,301	38,175	6
Morris	470,212	36,626	8
Ocean	510,916	25,638	5
Passaic	489,049	146,492	30
Salem	64,285	2,498	4
Somerset	297,490	25,811	9
Sussex	144,166	4,822	3
Union	522,541	103,011	20
Warren	102,437	3,751	4
Total	**8,414,350**	**1,117,191**	**13.3**

Figure 2-10: Percentage of Hispanic or Latino Population by County (2000)

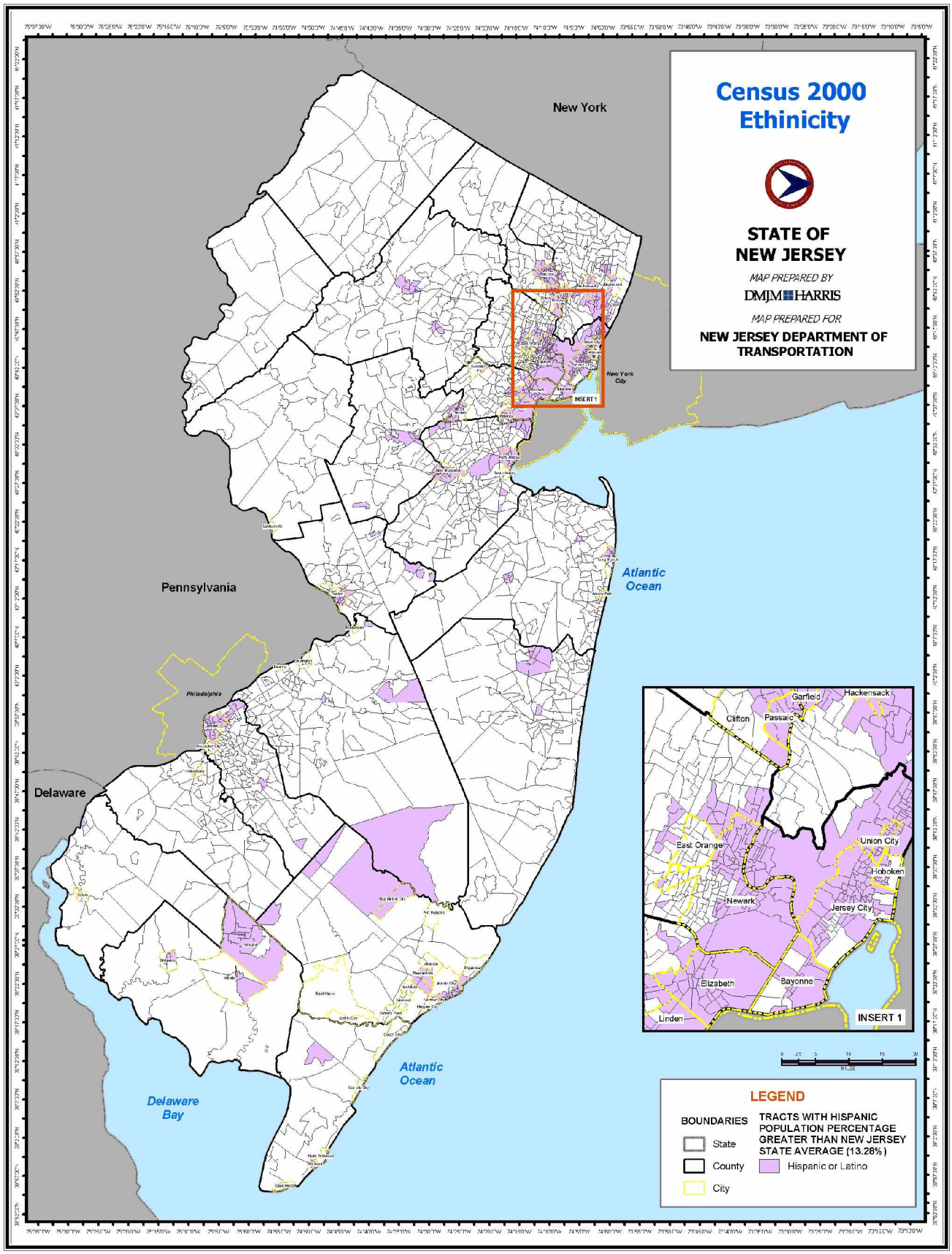


Persons of Hispanic or Latino origin increased by 377,330 in New Jersey, from 739,861 in 1990 to 1,117,191 in 2000, accounting for more than half (55%) of New Jersey's total population growth. The Hispanic or Latino population growth rate of 51% far outpaced the non-Hispanic growth rate of 4.4%. They represented 13.3% of the state's population in 2000, up from 9.6% in 1990.

More than one-third of the state's Hispanic population resided in Hudson and Passaic counties in 2000. Hudson (+58,658) and Passaic counties (+48,400) gained more Hispanics during the 1990s than any other counties in New Jersey. These two counties also had the highest proportion of Hispanic residents in 2000 (40% and 30%, respectively). Together they accounted for more than one-third (34.8%) of the state's total Hispanic population. Union, Cumberland, Essex and Middlesex also had Hispanic populations greater than the state average of 13.3%.

Figure 2-11 shows census tracts where the Hispanic population is greater than the statewide average. The spatial distribution of more concentrated Hispanic areas is very similar to that of more concentrated Black or African American areas. The Hispanic population is also focused in and around the eight major urban cities for the similar reasons.

Figure 2-11: Concentrations of Hispanic/Latino Populations In New Jersey (2000)



2.5 Immigrant Population

Immigration has a profound impact on the nation that is reflected in the diversity of cultures, languages and ethnic groups characteristic of the US. The immigrant population is growing 6.5 times faster than the native-born population, with 31.1 million immigrants in the 2000 Census. This is more than triple the 9.6 million in 1970 and more than double the 14.1 million in 1980. Although the absolute size of the foreign-born population is at an all-time high, the foreign-born comprise just over 11% of the overall population – significantly below the 15% that was recorded in the early part of the century[5].

New Jersey is one of the six major states that are popular destinations for the immigrant population. Seventy percent of all legal immigrants entering in 2000 intended to reside in one of these six states: California (31%), New York (13%), Florida (10%), Texas (8%), New Jersey (4%) and Illinois (4%). New Jersey's 1.47 million foreign-born residents in 2000 contributed 17.5% of the overall state population, which is significantly higher than the nationwide average of 11%. Furthermore, foreign immigrants and their children accounted for approximately 30% of New Jersey's total residents as of 2000, based on the 2000 estimates of the Division of Labor Market and Demographic Research and considering the native population with mixed parentage (one parent is an immigrant) and foreign parentage (both parents are foreign born).

As shown in Table 2-5, more than 41% of the total immigrants residing in New Jersey entered within the past decade. This inflow is more than 1.5 times the inflow observed in the 1980s and 1.3 times the combined immigrant inflow before 1980.

Although the overall rate of immigrant inflow in New Jersey within each of the past few decades was almost similar to the national rate, New Jersey has a lower percentage of Latin American immigrants and a higher percentage of European immigrants compared to national averages. However, Latin American immigrants comprise the highest slice (41%) of the total New Jersey immigrant population pie.

[5] Source: Population Research Center

Table 2-5: Changes in Immigrant Populations for New Jersey and the US

Foreign born Population	NJ Number	Percentage	USA Number	Percentage
Total Foreign-born Population	1,476,327	100	31,107,889	100
Entered 1990 to March 2000	614,416	41.6	13,178,276	42.4
Entered 1980 to 1989	395,071	26.8	8,464,762	27.2
Entered before 1980	466,840	31.6	9,464,851	30.4
Total Foreign-born Population	1,476,327	100	31,107,889	100
Europe	352,914	23.9	4,915,557	15.8
Asia	410,123	27.8	8,226,254	26.4
Africa	59,917	4.1	881,300	2.8
Oceania*	2,354	0.2	168,046	0.5
Latin America	634,084	43.0	16,086,974	51.7
Northern America	16,935	1.1	829,442	2.7
Born at sea	0	0.0	316	0.0

* Oceania represents Australia, New Zealand and Pacific Islands

Table 2-6 and Figure 2-12 show the trends over the past few decades in terms of changes in the immigrant population mix in New Jersey. Before 1980, Europeans were the predominant immigrants residing here, followed by Latin Americans. After 1980 that trend significantly changed, with a major decline in European immigrant inflow and a substantial increase in Latin American and Asian immigrants. During the past decade, 4 of 5 immigrants in New Jersey were either Latin Americans or Asians.

Table 2-6: Change in Immigrant Population Mix for New Jersey

Place of Birth of Foreign Born Population in New Jersey	Total foreign born population		Year of entry: before 1980		Year of entry: 1980 to 1989		Year of entry: 1990 to March 2000	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Europe	352,914	23.9	206077	44.2	55361	14.0	91476	14.9
Asia	410,123	27.8	91170	19.5	128960	32.7	189993	30.9
Africa	59,917	4.1	11704	2.5	17161	4.4	31052	5.1
Oceania	2,354	0.2	738	0.0	357	0.0	1259	0.2
Latin America	634,084	43.0	148496	31.8	190986	48.4	294602	47.9
Northern America	16,935	1.1	8655	1.9	2246	0.5	6034	1.0
Total	1,476,327	100.0	466,840	100.0	395,071	100.0	614,416	100.0

Figure 2-12: Change in Immigrant Population Mix for New Jersey

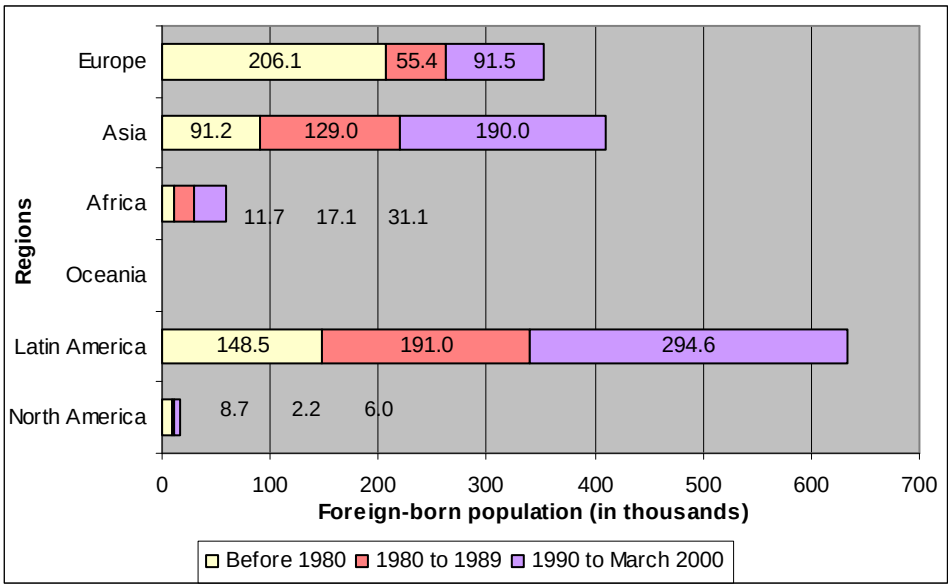
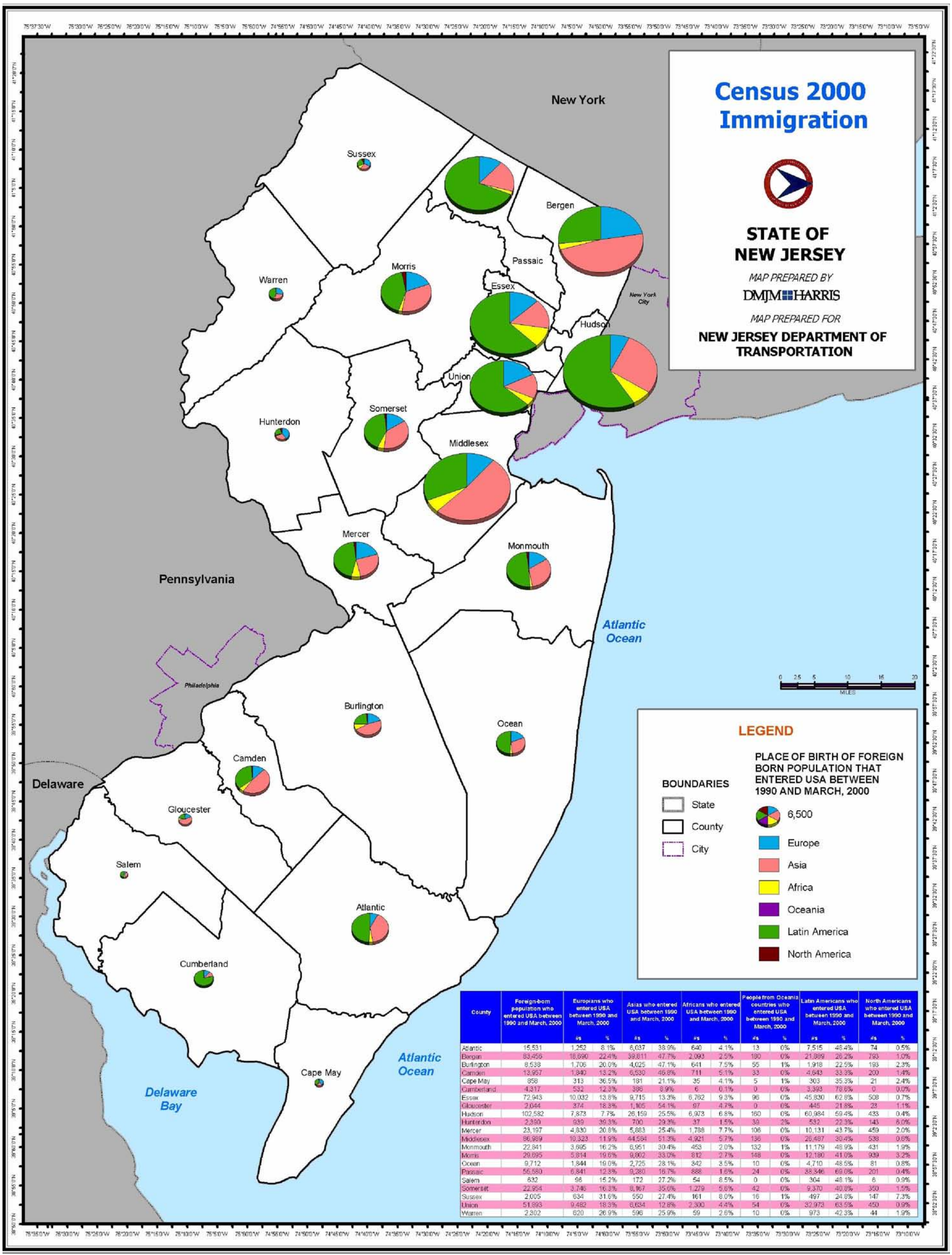


Figure 2-13 shows the size and proportion of immigrant population by county. Most of this population is concentrated in the New York and North Jersey metro areas. Latin American is the major immigrant group in most of the counties except Bergen, Middlesex, Burlington, Camden and Gloucester counties, where Asian predominates, and Hunterdon County, where Europeans are the majority of immigrants.

Figure 2-13 also shows that counties very close to New York City (Hudson, Bergen, Union, Essex, Passaic and Middlesex) have the biggest immigrant populations. Counties surrounding this immediate metro ring (Morris, Somerset, Mercer and Monmouth) show a moderate-sized immigrant population, while the number of immigrants decreases significantly in the outermost ring (Sussex, Warren and Hunterdon counties). As discussed earlier, the overall population in the New York metro area has shown a westward expansion in the past decade which may have been driven by growth in the immigrant population.

Figure 2-13: Immigrant Population by County (2000)



County	Foreign-born population who entered USA between 1990 and March, 2000	Europians who entered USA between 1990 and March, 2000		Asias who entered USA between 1990 and March, 2000		Africans who entered USA between 1990 and March, 2000		People from Oceania countries who entered USA between 1990 and March, 2000		Latin Americans who entered USA between 1990 and March, 2000		North Americans who entered USA between 1990 and March, 2000	
		#s	%	#s	%	#s	%	#s	%	#s	%	#s	%
Atlantic	15,531	1,252	8.1%	6,037	38.9%	640	4.1%	13	0%	7,515	48.4%	74	0.5%
Bergen	83,456	18,690	22.4%	39,811	47.7%	2,093	2.5%	180	0%	21,889	26.2%	793	1.0%
Burlington	8,538	1,706	20.0%	4,025	47.1%	641	7.5%	55	1%	1,918	22.5%	193	2.3%
Camden	13,957	1,840	13.2%	6,530	46.8%	711	5.1%	33	0%	4,643	33.3%	200	1.4%
Cape May	858	313	36.5%	181	21.1%	35	4.1%	5	1%	303	35.3%	21	2.4%
Cumberland	4,317	532	12.3%	386	8.9%	6	0.1%	0	0%	3,393	78.6%	0	0.0%
Essex	72,943	10,032	13.8%	9,715	13.3%	6,762	9.3%	96	0%	45,830	62.8%	508	0.7%
Gloucester	2,044	374	18.3%	1,105	54.1%	97	4.7%	0	0%	445	21.8%	23	1.1%
Hudson	102,582	7,873	7.7%	26,159	25.5%	6,973	6.8%	160	0%	60,984	59.4%	433	0.4%
Hunterdon	2,390	939	39.3%	700	29.3%	37	1.5%	38	2%	532	22.3%	143	6.0%
Mercer	23,197	4,830	20.8%	5,883	25.4%	1,788	7.7%	106	0%	10,131	43.7%	459	2.0%
Middlesex	86,989	10,323	11.9%	44,584	51.3%	4,921	5.7%	136	0%	26,487	30.4%	538	0.6%
Monmouth	22,841	3,695	16.2%	6,951	30.4%	453	2.0%	132	1%	11,179	48.9%	431	1.9%
Morris	29,095	5,814	19.6%	9,802	33.0%	812	2.7%	148	0%	12,180	41.0%	939	3.2%
Ocean	9,712	1,844	19.0%	2,725	28.1%	342	3.5%	10	0%	4,710	48.5%	81	0.8%
Passaic	55,580	6,841	12.3%	9,280	16.7%	888	1.6%	24	0%	38,346	69.0%	201	0.4%
Salem	632	96	15.2%	172	27.2%	54	8.5%	0	0%	304	48.1%	6	0.9%
Somerset	22,954	3,746	16.3%	8,167	35.6%	1,279	5.6%	42	0%	9,370	40.8%	350	1.5%
Sussex	2,005	634	31.6%	550	27.4%	161	8.0%	16	1%	497	24.8%	147	7.3%
Union	51,893	9,482	18.3%	6,634	12.8%	2,300	4.4%	54	0%	32,973	63.5%	450	0.9%
Warren	2,302	620	26.9%	596	25.9%	59	2.6%	10	0%	973	42.3%	44	1.9%

2.6 English as a Second Language

The significant number of immigrants attracted to New Jersey as a place to live and work also means that many New Jersey residents either do not speak English or do not speak it well. In 1990, 19.5% of the population five years and older in New Jersey spoke a language other than English at home, compared to a national average of 13.8%. By 2000, that number had grown to 25.5% (17.9% nationally). New Jersey ranked 7th in the country in terms of non-English speakers. Moreover, 11.1%, or more than 873,000 of these people, spoke English less than "very well," according to Census 2000.

Not surprisingly, the most common language after English in New Jersey was Spanish or Spanish Creole (12.3% of the population), with almost half of these people reporting they spoke English less than "very well." Another 8.4% of the state's residents spoke other Indo-European languages at home (3.1% less than "very well"), and 3.5% spoke an Asian or Pacific Island language at home (1.5% less than "very well"). The other most commonly spoken languages were Italian (1.5%), Chinese (1.1%), Polish (1.0%), Portuguese or Portuguese Creole (0.9%), Tagalog (0.9%), and Korean (0.7%).

In transportation terms, this means a greater need for at least bilingual signs and transportation information, particularly in the state's major cities. Special efforts must be made to communicate with these groups and to involve them in transportation decision-making. Many public meetings must now be bi-lingual, and materials are routinely produced in Spanish, in particular.

Since many of these non-English-speaking, or minimally English-speaking, residents find lower-paying jobs that do not require language proficiency, they become subject to environmental justice considerations even if they are not minorities. Attention must be given to ensuring their participation in decisions that affect them and to avoiding transportation projects that could place a disparate burden on them.

In addition, many of these lower-income people cannot afford a car and must therefore rely on public transportation, especially in the larger cities. Improvements to transportation are essential to ensure their mobility and access to jobs.

2.7 Age Distribution

Table 2-7 compares New Jersey's population by age group between 1990 and 2000. It can be seen that New Jersey's youth population (age group 18-34 years) has decreased significantly over the past decade. This trend parallels the national trend for this age group and is mainly attributed to the Baby Boomer generation of the late 1940s through the early 1960s moving out of this age bracket. The ripple effect is observed in the next age group brackets (35-44 years and 45-64 years), where the population has increased significantly in the past decade.

The past decade also showed a significant increase in the population under 18 years, which can be attributed to the Baby Boomers' echo phenomenon (children of the Baby Boomer generation). The elderly population (65 years and over) shows a slight increase in 2000, but its share of the total population decreased between 1990 and 2000.

The progression of the Baby Boomer generation into older age groups will require significant consideration while planning for New Jersey's transportation future. Over the next couple decades most of this generation will become senior citizens, with significantly different

transportation needs. While many will continue to drive, many others will have to rely on public transportation, including paratransit. In 2000, almost 39% of the population over 65 had a disability. Meeting the needs of this important sector represents a major challenge.

Table 2-7: Change in Population by Age for New Jersey (1990-2000)

	1990 New Jersey		2000 New Jersey		Change, 1990 to 2000 New Jersey		USA
Age	Number	Percentage	Number	Percentage	Number	Percent Change*	Percent Change
Total Population	7,730,188	100.0	8,414,350	100.0	684,162	-	-
Under 18 years	1,799,462	23.3	2,087,558	24.8	288,096	**1.5**	**0.1**
18 years to 34 years	2,139,835	27.7	1,865,668	22.2	-274,167	**-5.5**	**-4.3**
35 years to 44 years	1,196,659	15.5	1,435,106	17.1	238,447	**1.6**	**0.9**
45 years to 64 years	1,562,207	20.2	1,912,882	22.7	350,675	**2.5**	**3.3**
65 years and over	1,032,025	13.4	1,113,136	13.2	81,111	**-0.2**	**-0.2**

***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

Figure 2-14 compares New Jersey's age distribution with the national trend. New Jersey's population shares by age group are similar to the national age distribution shares, with the population below 34 years slightly lower than the national figure while the population above 34 years is slightly higher.

Figure 2-14: Age Distribution in New Jersey and the United States (2000)

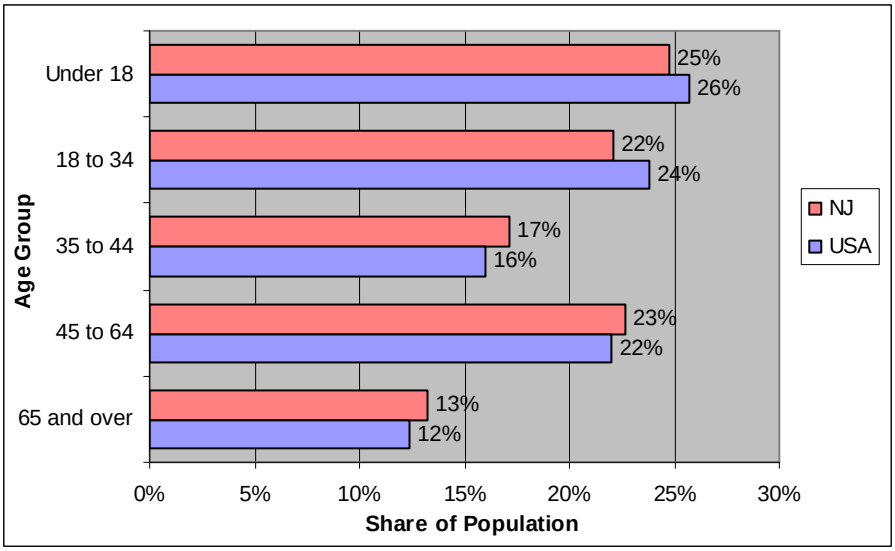


Figure 2-15 compares New Jersey's population in 1990 and 2000 by age group and by sex. As in 1990, the proportion of the male and female population in 2000 is almost balanced for age groups below 64 years, while the female proportion is significantly higher in the senior citizen age group.

Figure 2-15: Age by Sex for New Jersey (1990-2000)

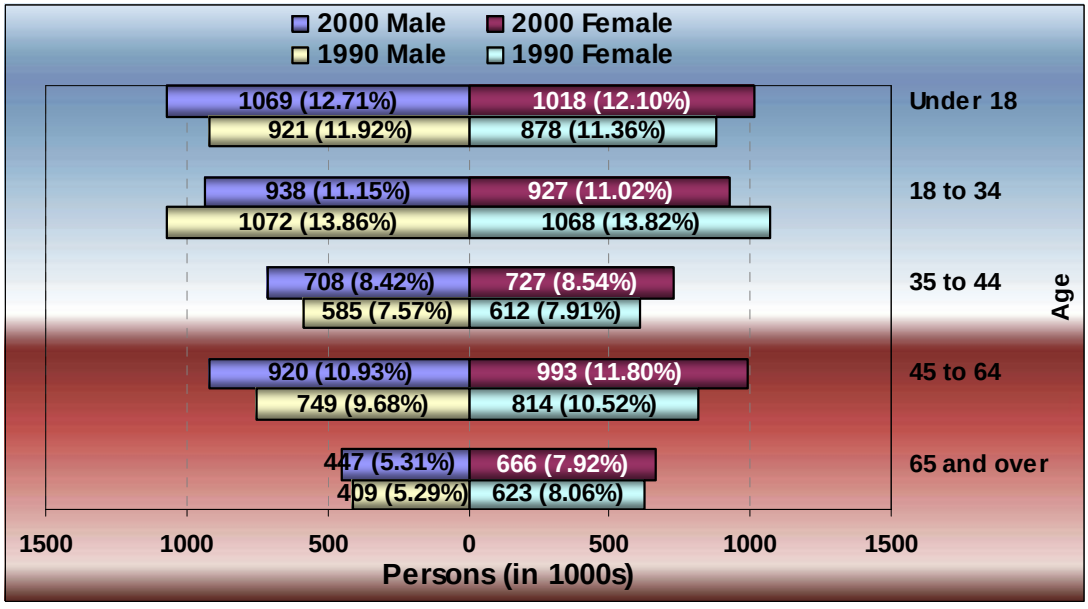


Figure 2-16 shows the population by age in New Jersey's counties. In general, most of the counties show an age group distribution similar to the statewide averages. A few counties show some variation mainly due to their location. For example, Hudson County, located

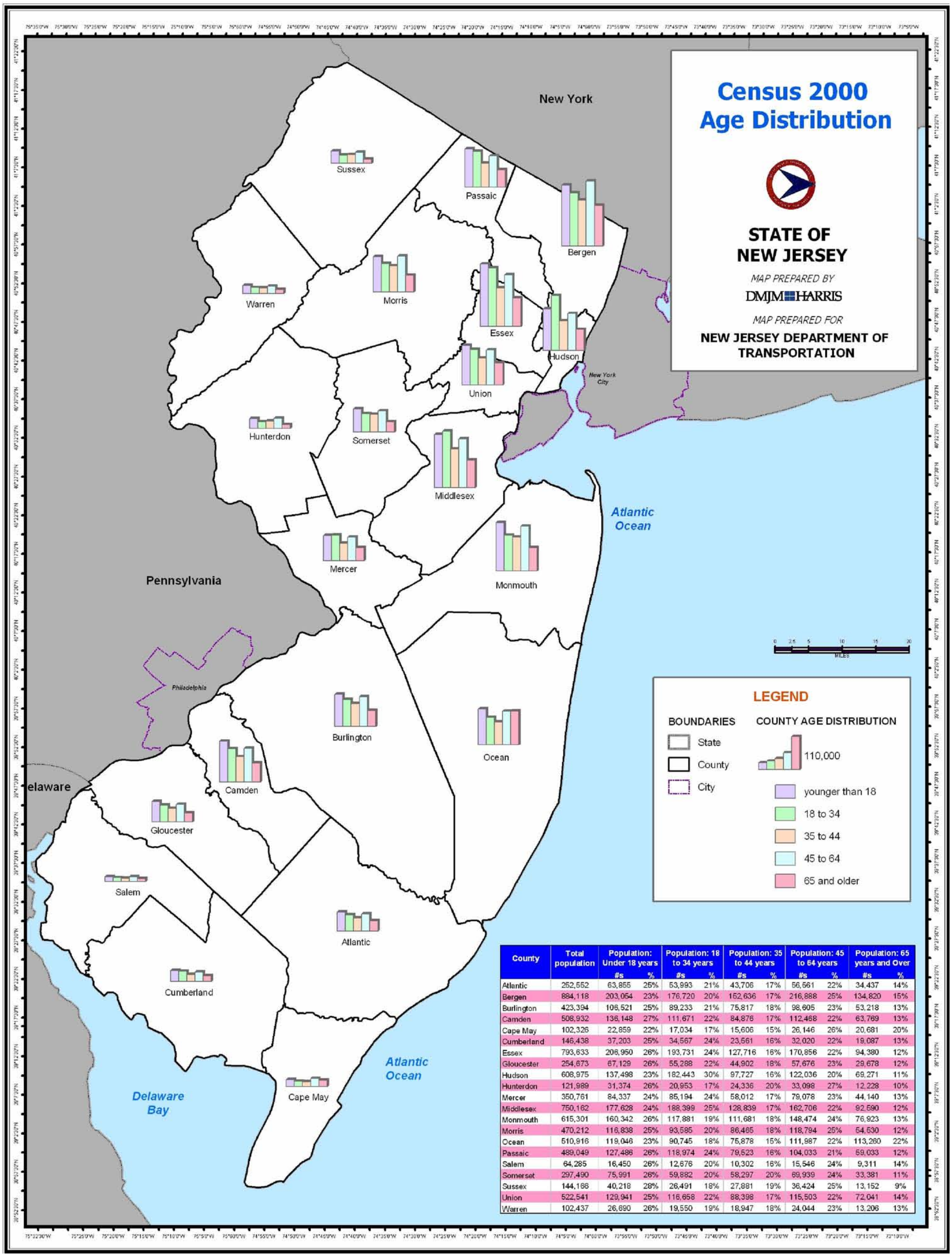
immediately across from New York City, has a significant number of young people, and Ocean County's senior citizen population is much higher than the state average.

Figure 2-17 shows concentrations of the elderly population (65 years and over) in New Jersey. The figure highlights census tracts where the concentration of the elderly is higher than the state average of 13.2% and where this population is more than half the tract population (>50%). The figure clearly shows that the elderly population in most places is uniformly distributed over the state, with some pockets of significant concentration in Ocean, Middlesex, Camden, Burlington, Monmouth and Somerset counties.

There is a direct correlation between the elderly population and a lack of availability of automobiles. In 2000, 21.1% of the population over 65 did not have access to an automobile. This is illustrated in Figure 3-3, in which the few tracts where the elderly population was more than 50% are also highlighted as tracts with significant concentrations of households with no automobiles. (**tracts with elderly population > 50% :: tracts with no-vehicle households greater than the state average**)

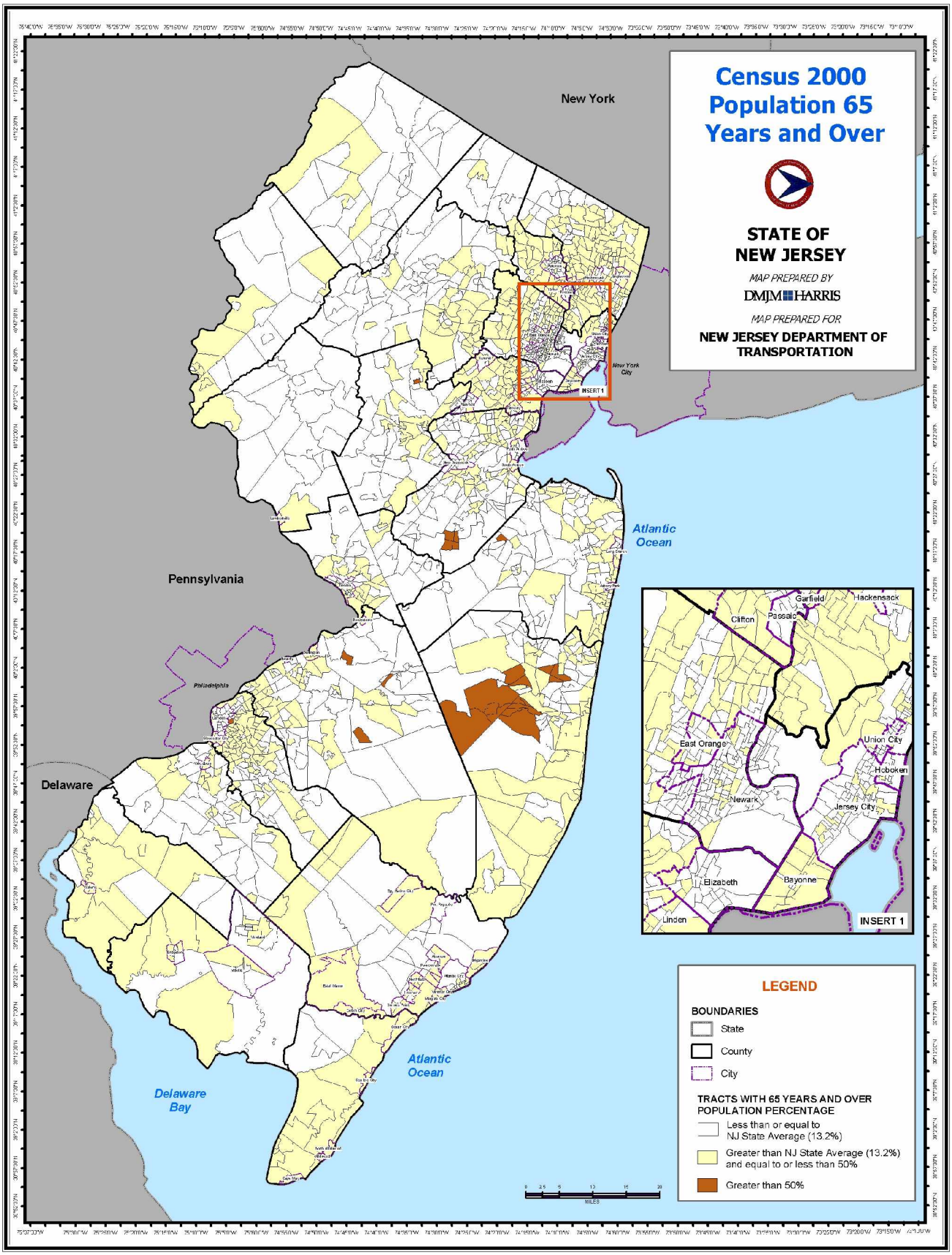
Providing suitable transportation choices to the population belonging to this growing age group is becoming increasingly important. Because this population is mostly uniformly scattered all over the state, providing transit and paratransit services to this age group will remain a challenge.

Figure 2-16: Population by Age by County (2000)



County	Total population	Population: Under 18 years		Population: 18 to 34 years		Population: 35 to 44 years		Population: 45 to 64 years		Population: 65 years and Over	
		#s	%	#s	%	#s	%	#s	%	#s	%
Atlantic	252,552	63,855	25%	53,993	21%	43,706	17%	56,561	22%	34,437	14%
Bergen	884,118	203,054	23%	176,720	20%	152,636	17%	216,888	25%	134,820	15%
Burlington	423,394	106,521	25%	89,233	21%	75,817	18%	98,605	23%	53,218	13%
Camden	508,932	136,148	27%	111,671	22%	84,876	17%	112,468	22%	63,769	13%
Cape May	102,326	22,859	22%	17,034	17%	15,606	15%	26,146	26%	20,681	20%
Cumberland	146,438	37,203	25%	34,567	24%	23,561	16%	32,020	22%	19,087	13%
Essex	793,633	206,950	26%	193,731	24%	127,716	16%	170,856	22%	94,380	12%
Gloucester	254,673	67,129	26%	55,288	22%	44,902	18%	57,676	23%	29,678	12%
Hudson	608,975	137,498	23%	182,443	30%	97,727	16%	122,036	20%	69,271	11%
Hunterdon	121,989	31,374	26%	20,953	17%	24,336	20%	33,098	27%	12,228	10%
Mercer	350,761	84,337	24%	85,194	24%	58,012	17%	79,078	23%	44,140	13%
Middlesex	750,162	177,628	24%	188,399	25%	128,839	17%	162,706	22%	92,590	12%
Monmouth	615,301	160,342	26%	117,881	19%	111,681	18%	148,474	24%	76,923	13%
Morris	470,212	116,838	25%	93,585	20%	86,465	18%	118,794	25%	54,530	12%
Ocean	510,916	119,046	23%	90,745	18%	75,878	15%	111,987	22%	113,260	22%
Passaic	489,049	127,486	26%	118,974	24%	79,523	16%	104,033	21%	59,033	12%
Salem	64,285	16,450	26%	12,676	20%	10,302	16%	15,546	24%	9,311	14%
Somerset	297,490	75,991	26%	59,882	20%	58,297	20%	69,939	24%	33,381	11%
Sussex	144,166	40,218	28%	26,491	18%	27,881	19%	36,424	25%	13,152	9%
Union	522,541	129,941	25%	116,658	22%	88,398	17%	115,503	22%	72,041	14%
Warren	102,437	26,690	26%	19,550	19%	18,947	18%	24,044	23%	13,206	13%

Figure 2-17: Concentrations of Elderly Population in New Jersey (2000)



3. Household Characteristics

The number of occupied housing units in New Jersey grew by 271,000 (9.7%) between 1990 and 2000, from approximately 2.8 million units in 1990 to 3.07 million in 2000. This rate of increase was slightly higher than population growth rate (8.9%) during the same period, indicating that the average household size (population per occupied housing unit) has been decreasing further in accordance with the regional and national trends observed in the past couple of decades. New Jersey showed a slower housing growth rate than the national average (14.7%).

In 2000, about two-thirds of all the occupied housing units in New Jersey were owner occupied, while one-third were renter-occupied units. New Jersey's youth population (34 years and younger) owned only one out of every ten occupied housing units in the state but had the highest share (one out of every four units) of renter-occupied housing.

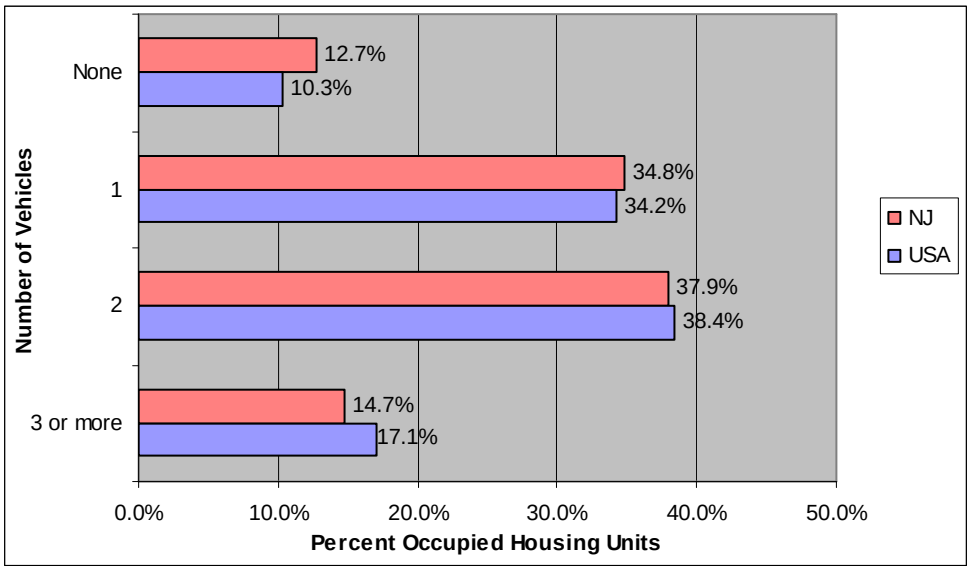
There is a direct relation between types of housing units (owner occupied vs. renter occupied) and travel patterns. Generally, rental units are occupied based on suitability factors like proximity to the workplace and shopping areas, which results in shorter average travel lengths. On the other hand, housing units are purchased primarily based on their affordability and are predominantly located in suburban areas, contributing to moderate to longer average travel lengths.

There is another correlation between type of housing and mode of travel. Usually major rental properties provide the density required to support transit service. On the other hand, owned housing units have mostly demonstrated a sprawl tendency in the past few decades, making transit service less viable and resulting in increased dependence on personal vehicles.

3.1 Vehicle Availability

Among the 3.07 million occupied housing units in New Jersey in 2000, 12.7% had no vehicles, 34.8% had one vehicle, 37.9% had two vehicles and 14.7% had three or more vehicles. A comparison of auto ownership patterns among occupied housing units in New Jersey and the nation as a whole can be seen in Figure 3-1. New Jersey's share of households with no vehicles (12.7%) is greater than the corresponding national share (10.3%). Also, the share of occupied housing units with three or more vehicles (14.7%) is lower than the corresponding share nationally (17.1%). Despite these favorable numbers, New Jersey faces the most severe traffic congestion issues in the nation, mainly due to its high population density.

Figure 3-1: Vehicle Availability Among Occupied Housing Units in New Jersey and United States (2000)



The trend in auto ownership in New Jersey between 1990 and 2000 did not change significantly, as shown in Table 3-1. Auto ownership has been increasing at about the same rate as population, emphasizing the extensive dependence New Jerseyans have on personal vehicles.

Table 3-1: Change in Vehicle Availability among Occupied Housing Units in New Jersey (1990-2000)

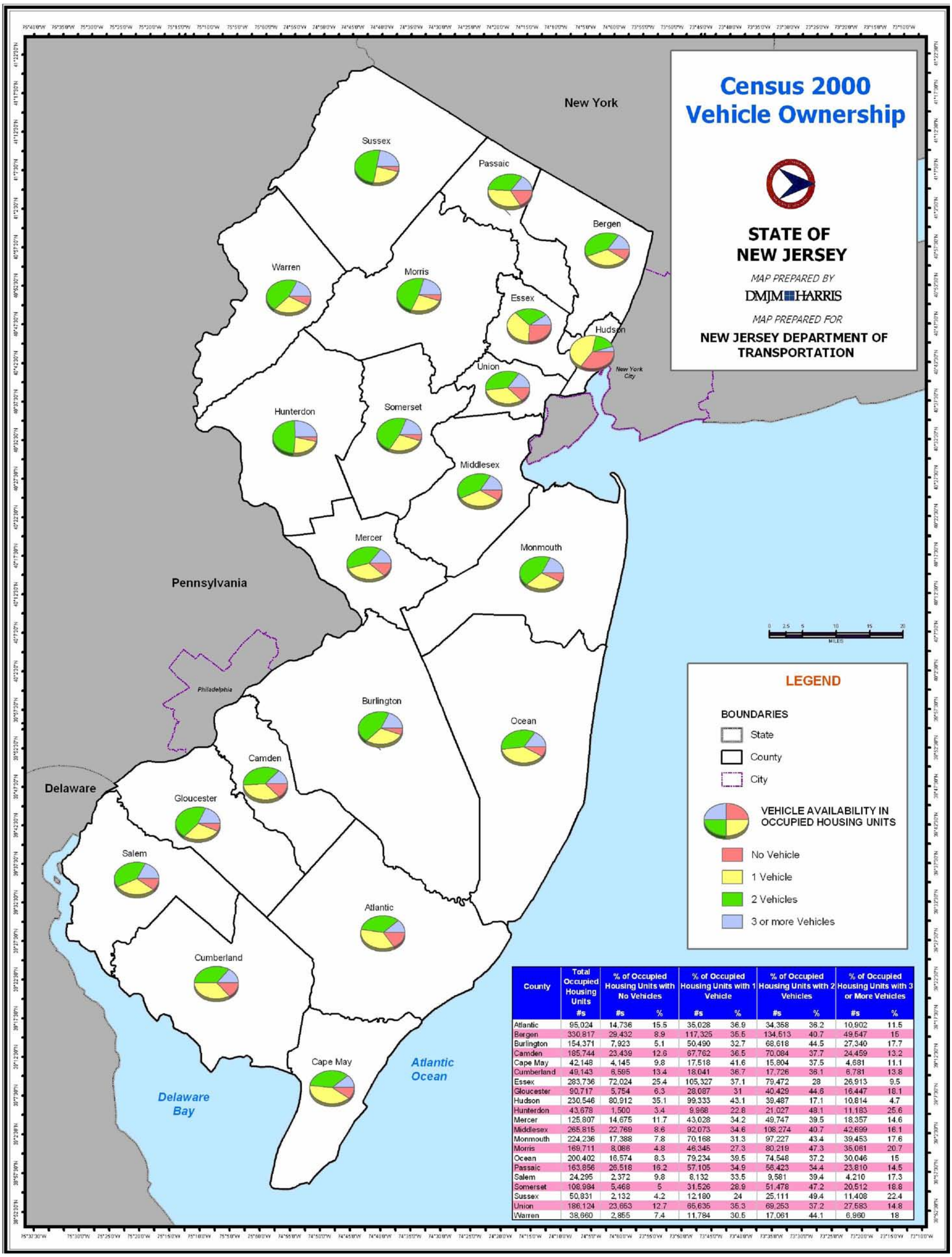
Vehicle Availability in Occupied Housing Units	1990 New Jersey		2000 New Jersey		Change, 1990 to 2000 New Jersey		USA
	Number	Percent	Number	Percent	Number	Percent Point*	Percent Point*
Occupied Housing Units	2,794,711	100	3,064,645	100	269,934	-	-
No Vehicles	360,144	12.9	388,950	12.7	28,806	-0.2	-1.2
1 Vehicle	966,488	34.6	1,066,089	34.8	99,601	0.2	0.4
2 Vehicles	1,030,686	36.9	1,160,440	37.9	129,754	1.0	1.0
3 or more Vehicles	437,393	15.7	449,166	14.7	11,773	-1.0	-0.2

***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

Auto ownership trends among occupied housing units in 2000 for each of the 21 counties in New Jersey are shown in Figure 3-2. Some of the important patterns are noted below:

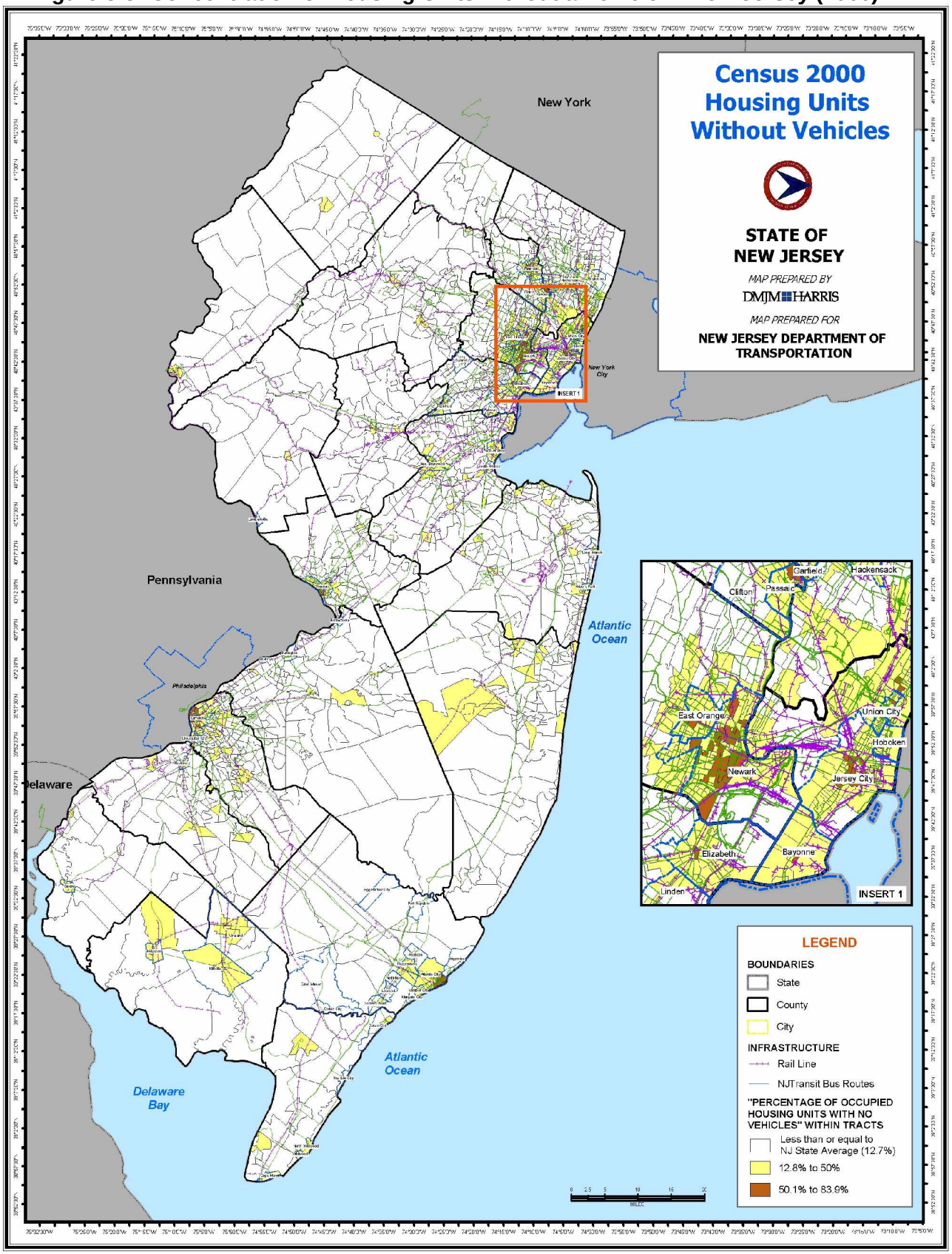
- More than 80% of the occupied housing units in each of New Jersey's counties, except Hudson and Essex, have one or more vehicles.
- The largest percentage as well as number of occupied housing units without vehicles is in Hudson County, where about 81,000 (35%) occupied housing units do not have any vehicles. The second largest share (25%), as well as of number (72,000), of occupied housing units with no vehicles is in Essex County. This can be attributed primarily to the strategic locations of these counties across from New York City with extensive transit options available. Another factor is the large percentage of households below the poverty level in these counties.
- About 43% of all occupied housing units in Hudson County have only one vehicle.
- Bergen County has the largest number of occupied housing units with one, two and three or more vehicles.
- The counties with the largest percentage of occupied housing units with three or more vehicles are Hunterdon (25.6%), Sussex (22.4%) and Morris (20.7%). All these counties are located in the northwestern part of New Jersey with fewer and less convenient transit options to connect to the New York metro area job market, resulting in increasing dependence on personal vehicles.
- The counties with the highest number of occupied housing units with three or more vehicles are Bergen (50,000) and Middlesex (43,000).
- A detailed analysis of occupied households without a vehicle at tract level is shown in Figure 3-3. Hudson County is the only county with a uniform spread of occupied housing units with no vehicle. In all other counties, occupied housing units with no vehicle are mainly concentrated in cities or in areas along a bus route or rail line. Cities where more than 50% of the downtown occupied housing units were without a vehicle were Jersey City, Atlantic City, Bayonne, Newark, East Orange, Paterson, Passaic, Trenton and Camden. This list includes six of the eight urban supplement cities in New Jersey.
- The large contiguous area of land in the western part of Ocean County also showed a higher percentage of occupied housing units with no vehicle compared to the New Jersey state average of 12.7%. Although this area is not a part of any city, more than 50% of its population is elderly, as shown previously in Figure 2-11.

Figure 3-2: Vehicle Ownership among Occupied Housing Units by County (2000)



County	Total Occupied Housing Units	% of Occupied Housing Units with No Vehicles		% of Occupied Housing Units with 1 Vehicle		% of Occupied Housing Units with 2 Vehicles		% of Occupied Housing Units with 3 or More Vehicles	
	#s	#s	%	#s	%	#s	%	#s	%
Atlantic	95,024	14,736	15.5	35,028	36.9	34,358	36.2	10,902	11.5
Bergen	330,817	29,432	8.9	117,325	35.5	134,513	40.7	49,547	15
Burlington	154,371	7,923	5.1	50,490	32.7	68,618	44.5	27,340	17.7
Camden	185,744	23,439	12.6	67,762	36.5	70,084	37.7	24,459	13.2
Cape May	42,148	4,145	9.8	17,518	41.6	15,804	37.5	4,681	11.1
Cumberland	49,143	6,595	13.4	18,041	36.7	17,726	36.1	6,781	13.8
Essex	283,736	72,024	25.4	105,327	37.1	79,472	28	26,913	9.5
Gloucester	90,717	5,754	6.3	28,087	31	40,429	44.6	16,447	18.1
Hudson	230,546	80,912	35.1	99,333	43.1	39,487	17.1	10,814	4.7
Hunterdon	43,678	1,500	3.4	9,968	22.8	21,027	48.1	11,183	25.6
Mercer	125,807	14,675	11.7	43,028	34.2	49,747	39.5	18,357	14.6
Middlesex	265,815	22,769	8.6	92,073	34.6	108,274	40.7	42,699	16.1
Monmouth	224,236	17,388	7.8	70,168	31.3	97,227	43.4	39,453	17.6
Morris	169,711	8,086	4.8	46,345	27.3	80,219	47.3	35,061	20.7
Ocean	200,402	16,574	8.3	79,234	39.5	74,548	37.2	30,046	15
Passaic	163,856	26,518	16.2	57,105	34.9	56,423	34.4	23,810	14.5
Salem	24,295	2,372	9.8	8,132	33.5	9,581	39.4	4,210	17.3
Somerset	108,984	5,468	5	31,526	28.9	51,478	47.2	20,512	18.8
Sussex	50,831	2,132	4.2	12,180	24	25,111	49.4	11,408	22.4
Union	186,124	23,663	12.7	65,635	35.3	69,253	37.2	27,583	14.8
Warren	38,660	2,855	7.4	11,784	30.5	17,061	44.1	6,960	18

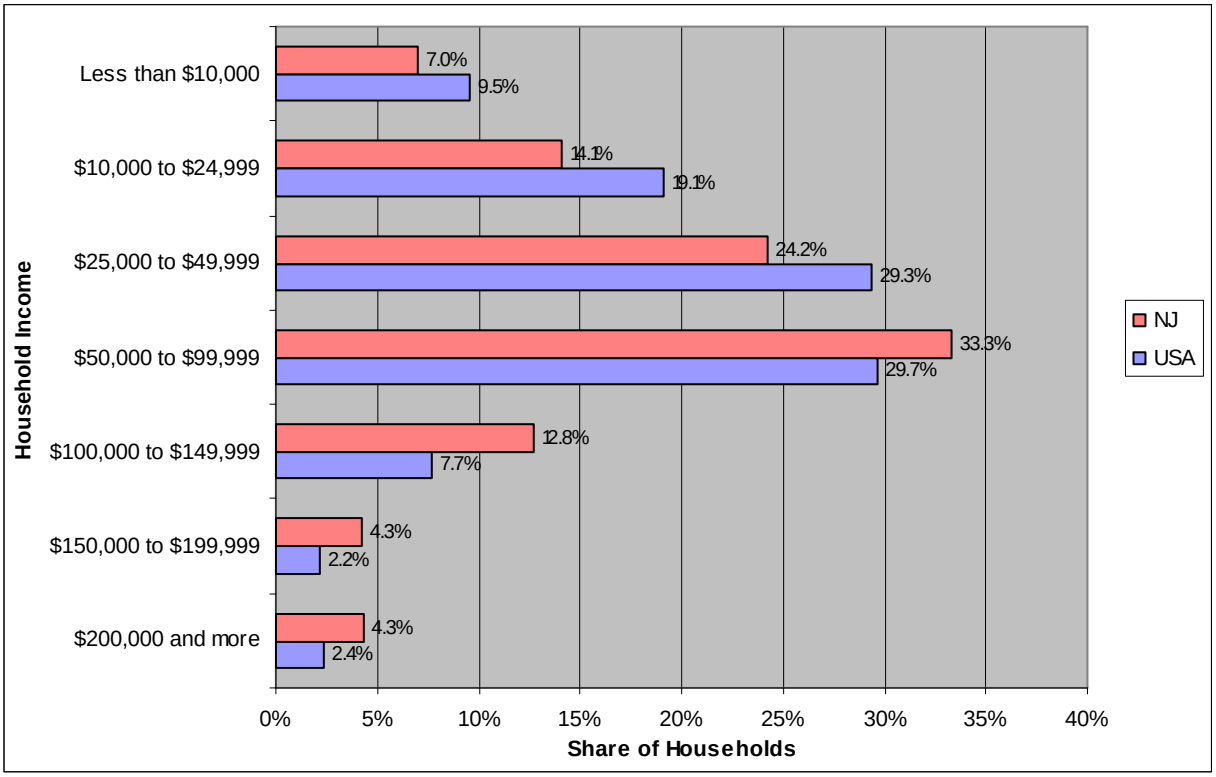
Figure 3-3: Concentration of Housing Units without a Vehicle in New Jersey (2000)



3.2 Household Income

New Jersey's leading-edge, knowledge-driven, information-based economy has yielded the highest median household income among the 50 states in the past decade. Figure 3-4 clearly shows that in 1999 New Jersey's proportion of household income categories less than $50,000 was significantly lower than the corresponding national average for these categories. For household incomes of $50,000 to $99,999, New Jersey's percentage was significantly higher, while the income categories higher than $100,000 yielded a share that was almost double the national share.

Figure 3-4: Household Income for New Jersey and United States (1999)



During the past decade, New Jersey has experienced significant changes in its household income characteristics. As shown in Table 3-2, in 1989 more than 60% of New Jersey's households had incomes of less than $50,000. In 1999, this share had decreased significantly to 45%. On the other hand, the share for incomes of $50,000 to $99,999 had doubled in 1999 compared to 1989, while the share of households with incomes above $150,000 had increased almost threefold. This trend is similar to the national trend in household income for the same time period, as shown in the last two columns of Table 3-2.

In New Jersey, the maximum decrease in percentile share between 1989 and 1999 (from 32% to 24.2%, or 7.8%) was observed for households with incomes between $25,000 and $49,999. Nationally the maximum decrease in percentile share was for households with incomes between $10,000 and $24,999 (7.2%).

Table 3-2: Change in Household Income for New Jersey (1989-1999)

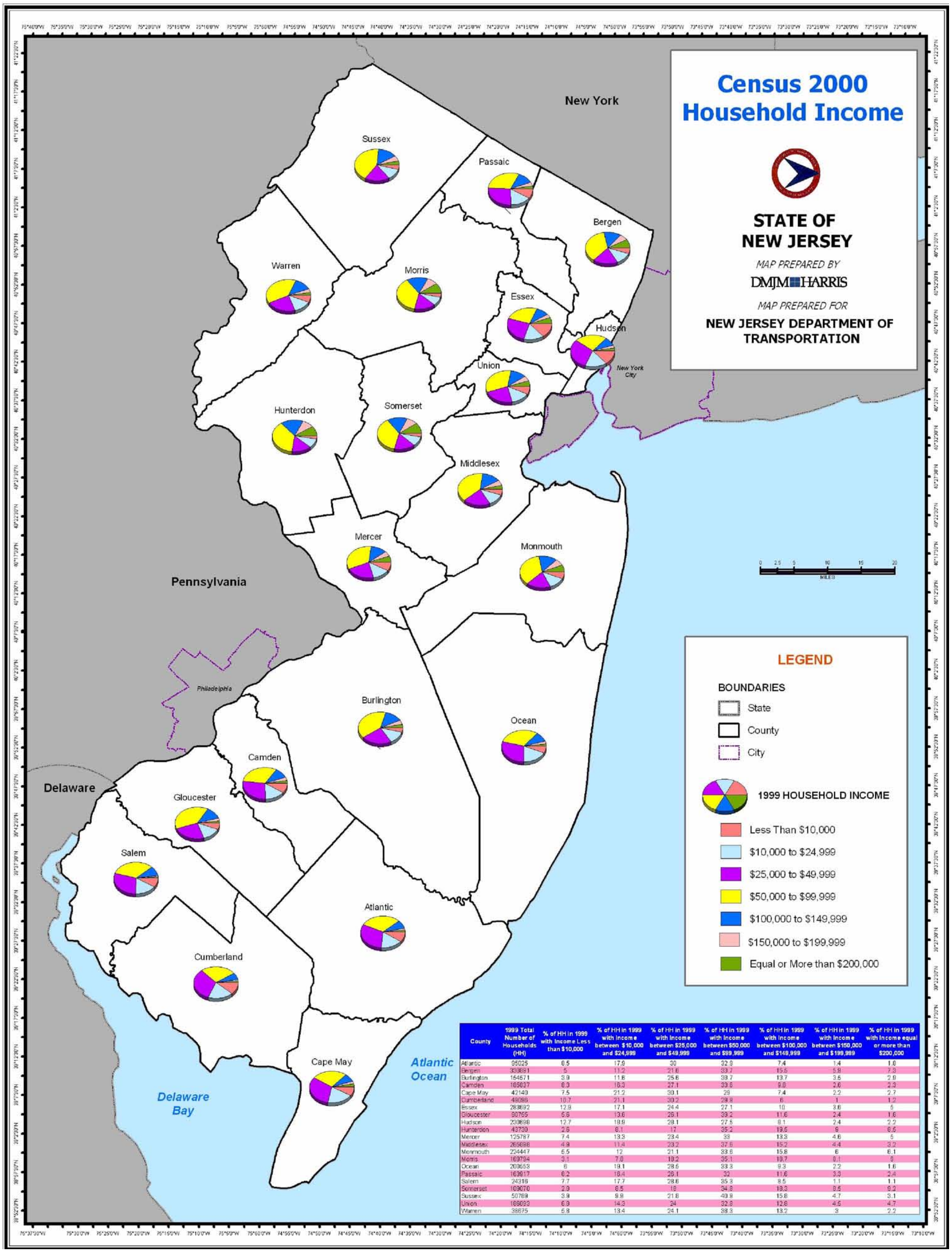
Household Income	1989 New Jersey Number	1989 New Jersey Percent	1999 New Jersey Number	1999 New Jersey Percent	Change, 1989 to 1999 New Jersey Number	Change, 1989 to 1999 New Jersey Percent Point*	Change, 1989 to 1999 USA Percent Point*
Total Number of Households	2,794,316	100	3,065,774	100	**271,458**	-	-
Income Less than $10,000	287,121	10.3	213,939	7.0	**-73,182**	**-3.3**	**-5.9**
Income between $10,000 & $24,999	516,570	18.5	432,389	14.1	**-84,181**	**-4.4**	**-7.2**
Income between $25,000 & $49,999	894,128	32.0	742,822	24.2	**-151,306**	**-7.8**	**-4.4**
Income between $50,000 & $99,999	850,071	30.4	1,022,172	33.3	**172,101**	**2.9**	**9.6**
Income between $100,000 & $149,999	164,117	5.9	391,123	12.8	**227,006**	**6.9**	**4.9**
Income equal or more than $150,000	82,309	2.9	263,329	8.6	**181,020**	**5.7**	**3.0**
Income between $150,000 & $199,999 **	NA	-	(130,492)	(4.3)	-	-	-
Income equal or more than $200,000 **	NA	-	(132,837)	(4.3)	-	-	-

***** Change in share between 1989 and 1999 (Percent Point =1999 Percentage – 1989 Percentage)
** Data in this range available only in Census 2000. The combined share of these ranges has been used to compare with 1989

Figure 3-5 shows household incomes in 1999 for each of the 21 counties in New Jersey. The distribution of households by income category in all the counties was similar. The share of households with incomes between $50,000 and $99,999 was the largest in 18 of the counties. Based on 1999 household incomes, the richest counties in New Jersey were Hunterdon, Somerset and Morris. Over 35% of the households in these counties had incomes greater than $100,000.

At the other end of the economic scale, more than 10% of the households in Essex, Hudson and Cumberland counties had incomes below $10,000.

Figure 3-5: Household Incomes by County (1999)



County	1999 Total Number of Households (HH)	% of HH in 1999 with Income Less than $10,000	% of HH in 1999 with Income between $10,000 and $24,999	% of HH in 1999 with Income between $25,000 and $49,999	% of HH in 1999 with Income between $50,000 and $99,999	% of HH in 1999 with Income between $100,000 and $149,999	% of HH in 1999 with Income between $150,000 and $199,999	% of HH in 1999 with Income equal or more than $200,000
Atlantic	95025	8.5	17.9	30	32.9	7.4	1.4	1.8
Bergen	330691	5	11.2	21.8	33.7	15.5	5.9	7.3
Burlington	164571	3.9	11.6	25.6	38.7	13.7	3.6	2.9
Camden	165037	8.3	16.3	27.1	33.6	9.8	2.6	2.3
Cape May	42140	7.5	21.2	30.1	29	7.4	2.2	2.7
Cumberland	49086	10.7	21.1	30.2	29.8	6	1	1.2
Essex	283692	12.9	17.1	24.4	27.1	10	3.6	5
Gloucester	90755	5.6	13.6	26.1	39.2	11.6	2.4	1.6
Hudson	230698	12.7	18.9	28.1	27.5	8.1	2.4	2.2
Hunterdon	43730	2.6	8.1	17	35.2	19.5	9	6.5
Mercer	125787	7.4	13.3	23.4	33	13.3	4.6	5
Middlesex	265698	4.9	11.4	23.2	37.6	15.2	4.4	3.2
Monmouth	224447	6.5	12	21.1	33.6	15.8	6	6.1
Morris	169794	3.1	7.8	18.2	35.1	19.7	8.1	8
Ocean	200653	8	19.1	28.5	33.3	9.3	2.2	1.6
Passaic	163917	8.2	16.4	26.1	32	11.6	3.3	2.4
Salem	24316	7.7	17.7	28.6	35.3	8.5	1.1	1.1
Somerset	109070	2.9	8.5	18	34.8	18.3	8.5	9.2
Sussex	50789	3.9	8.9	21.8	40.9	15.8	4.7	3.1
Union	166093	6.9	14.3	24	32.8	12.8	4.5	4.7
Warren	38675	5.8	13.4	24.1	38.3	13.2	3	2.2

Households Below Poverty Level

The Census Bureau defines poverty as follows: "Following the Office of Management and Budget's (OMB's) Directive 14, the Census Bureau uses a set of money income thresholds that vary by family size and composition to detect who is poor. If the total income for a family or unrelated individual falls below the relevant poverty threshold, then the family or unrelated individual is classified as being 'below the poverty level.'"

In 1999, the percentage of New Jersey households below the poverty level (8.3%) was lower than the national percentage (see Table 3-3). However, between 1989 and 1999, while the share of New Jersey households below the poverty level increased from 7.7% to 8.3%, the national trend decreased from 12.7% to 11.8%.

Table 3-3: Change in Households Below the Poverty Level in New Jersey and the US (1989-1999)

	New Jersey			USA		
	1989	1999	Change, 1989-1999	1989	1999	Change, 1989-1999
Total Number of Households	2,794,316	3,065,774	271,458	91,993,582	105,539,122	13,545,540
Household Below Poverty	214,996	254,121	39,125	11,697,812	12,404,237	706,425
Share of Households Below Poverty	7.7%	8.3%	0.6	12.7%	11.8%	-0.9

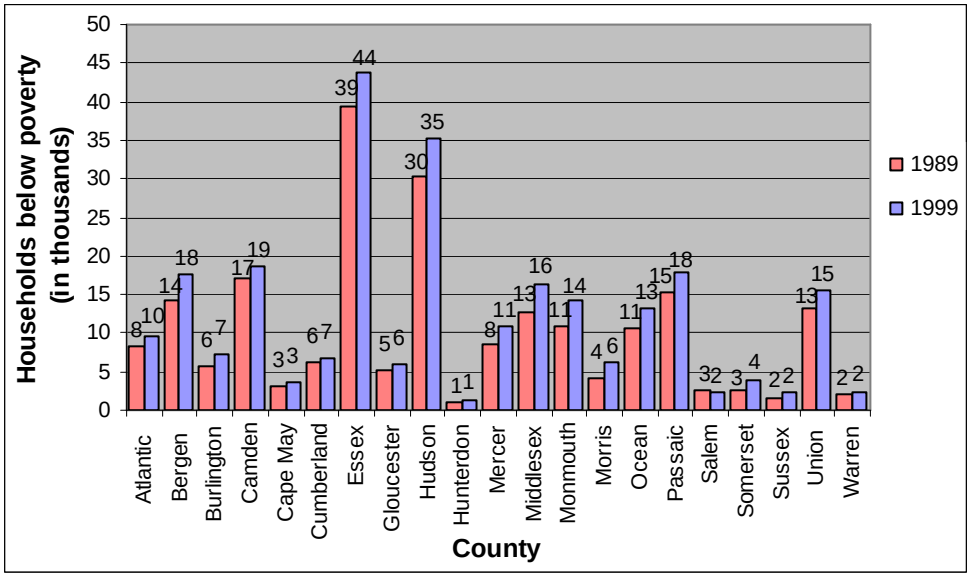
The share of households below the poverty level in each county is shown in Table 3-4 and Figure 3-6. Essex County had the largest share of households below the poverty level in New Jersey (15.4% or 44,000 households), and Hudson County had the second largest share, with 15.3% (35,000 households). The share of households living below the poverty level in Cumberland County was 13.7%; however, this was only about 7,000 households. This number was much lower than the approximately 18,000 households below the poverty level in Passaic, Camden and Bergen counties.

Households under the poverty level and households with no vehicles are interrelated attributes. As discussed earlier, the counties that have a significant number of households below the poverty level also topped the list of households with no vehicles. From a transportation viewpoint, providing mobility to of the people in these households is crucial to enable them to travel to work. This issue is complex because it also requires available affordable housing options near public transportation.

Table 3-4: Households Below Poverty Level by County (1999)

County	Total Households	Households with income in 1999 below poverty level	Share of Households below poverty level
Atlantic	95,025	9,581	10.1%
Bergen	330,891	17,503	5.3%
Burlington	154,571	7,203	4.7%
Camden	185,837	18,574	10.0%
Cape May	42,140	3,499	8.3%
Cumberland	49,096	6,733	13.7%
Essex	283,692	43,812	15.4%
Gloucester	90,755	6,055	6.7%
Hudson	230,698	35,287	15.3%
Hunterdon	43,730	1,219	2.8%
Mercer	125,787	10,825	8.6%
Middlesex	265,898	16,224	6.1%
Monmouth	224,447	14,212	6.3%
Morris	169,794	6,155	3.6%
Ocean	200,553	13,119	6.5%
Passaic	163,917	18,000	11.0%
Salem	24,316	2,213	9.1%
Somerset	109,070	3,862	3.5%
Sussex	50,789	2,232	4.4%
Union	186,093	15,499	8.3%
Warren	38,675	2,314	6.0%
New Jersey	**3,065,774**	**254,121**	**8.3%**

Figure 3-6: Households below Poverty Level by County (1989-1999)



In seventeen of the 21 counties, the number of households under the poverty level increased at a faster rate than the total number of households during the past decade (see Table 3-5. Only Salem County showed an actual reduction in the number of households below the poverty level. Counties like Bergen, Burlington, Mercer, Middlesex, Monmouth, Morris, Somerset, Sussex and Union showed a significant disparity between the two rates. Most of these counties are located in either the New York or Philadelphia metro areas.

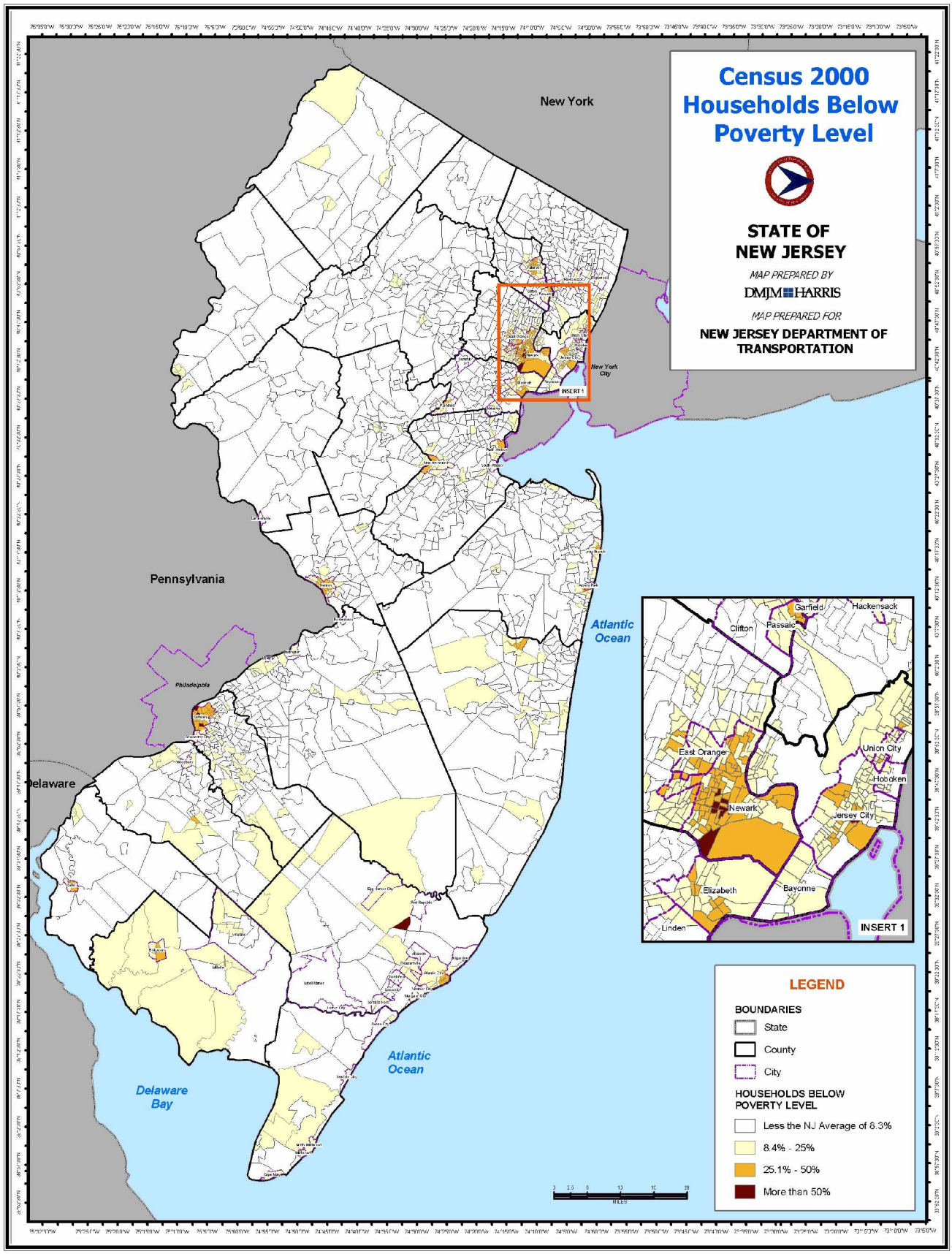
Table 3-5: Change in Total Number of Households in a County vs. Change in Number of Households below Poverty Level (1989-1999)

	Change (Numbers), 1989-1999		Change (Percentage), 1989-1999	
County	Total Number of Households	Households with income below poverty level	Total Number of Households	Households with income below poverty level
Atlantic	9,618	1,172	11%	14%
Bergen	22,096	3,376	7%	24%
Burlington	18,133	1,522	13%	27%
Camden	7,025	1,458	4%	9%
Cape May	4,105	287	11%	9%
Cumberland	1,837	571	4%	9%
Essex	6,025	4,537	2%	12%
Gloucester	12,026	813	15%	16%
Hudson	22,124	5,033	11%	17%
Hunterdon	5,578	100	15%	9%
Mercer	9,010	2,375	8%	28%
Middlesex	26,924	3,488	11%	27%
Monmouth	27,122	3,340	14%	31%
Morris	21,167	1,905	14%	45%
Ocean	32,241	2,486	19%	23%
Passaic	8,467	2,725	5%	18%
Salem	486	-373	2%	-14%
Somerset	20,251	1,325	23%	52%
Sussex	6,297	596	14%	36%
Union	6,127	2,208	3%	17%
Warren	4,799	181	14%	8%
New Jersey	**271,458**	**39,125**	**10%**	**18%**

Within these counties, households with incomes below the poverty level are concentrated mainly in the cities (see Figure 3-7), especially in Newark, Paterson, Trenton and Camden. As discussed earlier, this is largely because these cities have public transit networks as well as a range of affordable housing. Within the past few decades, income classes became more segregated when households with higher incomes started moving out of existing city centers to suburban areas and real estate prices dropped in center cities.

In South Jersey households with incomes below the poverty level were not just limited to cities. They were distributed over a larger area (examples – Cumberland County, the southern portion of Cape May County and the western and northern portions of Atlantic County). This can be mainly attributed to comparatively lower real estate values.

Figure 3-7: Concentration of Households Below Poverty Level in New Jersey (1999)



4. Economic Characteristics

The situation in New Jersey is aptly summarized by this quotation from "A Transportation Driven World-Class Economy: New Jersey at Risk," published by the Edward J. Bloustein School of Planning and Public Policy in April 2005:

> "New Jersey's economy has been successfully reinvented several times, and each occasion significantly enhanced the well-being of the state and its people. Most recent is the transformation to a leading-edge, knowledge-driven, information-based economy, which has yielded the highest median household and family incomes among the 50 states. However, it is important to observe that every period of economic progression in New Jersey was built upon earlier investments in transportation infrastructure. Now, as the twenty-first century unfolds, the relationship between economic growth and infrastructure investment is again becoming a major public policy issue as the state confronts an era of diminishing transportation resources.
>
> The bottom-line is that New Jersey economy and availability of adequate transportation infrastructure are interdependent attributes. In the postwar era, New Jersey's economy and residents benefited enormously from the 1,900 miles of state highways built before World War II, the 142 miles of the New Jersey Turnpike, and the 164 miles of the Garden State Parkway. An additional 415 miles of the Interstate Highway System in New Jersey were completed in 1992. Since then, the state has added thousands of jobs, translating those many work trips each morning and each evening that consume much, if not all, of the new transportation capacity provided by the Interstate roads.
>
> No equivalent addition to highway infrastructure is in New Jersey's future as land-use controls, environmental objections, and constraints on land availability preclude new road projects of the scale of the highway investments of the twentieth century. Instead, continual and significant upgrades of all aspects of the state's transportation infrastructure are required—rail, port, and highway. . . . . The goal of such investments is to improve the existing system so as to reduce cost increases on businesses, workers, residents, and governments that result from transportation constraints. Such cost increases have the potential to significantly damage the state's economy and reduce the rate of growth of income, jobs, and private investment."

This quotation underlines the importance of analyzing the economic attributes of the state's demographics to understand the trends of the past decade and their relationship to the transportation infrastructure.

4.1 Employment Status of Resident Labor Force

In 2000, New Jersey had about 6.55 million people who were 16 years and older (77.8% of its total population); about 36% were not part of the labor force[6]. Of the remaining, about 60% were employed in civilian jobs, 0.2% were employed by the armed forces and 3.7% were unemployed. In other words, only half the state's population (4.2 million) was in the labor force in 2000.

The distribution pattern of each employment status category in New Jersey was similar to the distributions in the Northeast and the country as a whole (see Table 4-1). The share of New Jersey's population employed in civilian jobs was similar (60.3%) to that of the Northeast (59.3%) and the nation (59.7%), indicating that New Jersey's economy maintained its pace with regional and national economic trends. This similarity was somewhat influenced by the regional and global market forces associated with the New York and Philadelphia economic markets.

Table 4-1: Population 16 Years and Over by Employment Status in New Jersey, Northeast Region and United States (2000)

Employment Status	New Jersey		Northeast		USA	
	Number	Percentage	Number	Percentage	Number	Percentage
Population 16 years and over	6,546,155	100	41,985,417	100	217,168,077	-
Employed in Civilian Labor Force	3,950,029	60.3	24,904,791	59.3	129,721,512	59.7
Employed in Armed Forces	11,248	0.2	65,761	0.2	1,152,137	0.5
Unemployed	243,116	3.7	1,566,751	3.7	7,947,286	3.7
Not in labor force	2,341,762	35.8	15,448,114	36.8	78,347,142	36.1

In New Jersey, the population 16 years and older increased by 7% between 1990 and 2000, from 6.13 million in 1990 to 6.55 million in 2000 (see Table 4-2). Although the number of people employed in civilian jobs increased between 1990 and 2000, the percentile share decreased. Both the number and share for armed forces employment also decreased in the past decade. The only category that increased in number as well as percentage between 1990 and 2000 was the population that was not in the labor force. This category grew by more than 340,000 people and its share increased from 32.6% in 1990 to 35.8% in 2000.

[6] Not in labor force: This category consists mainly of students, individuals taking care of home or family, retired workers, seasonal workers enumerated in an off-season who were not looking for work, and institutionalized people (all institutionalized people are placed in this category regardless of any work).

Table 4-2: Change in New Jersey Population 16 Years and Older by Employment Status (1990-2000)

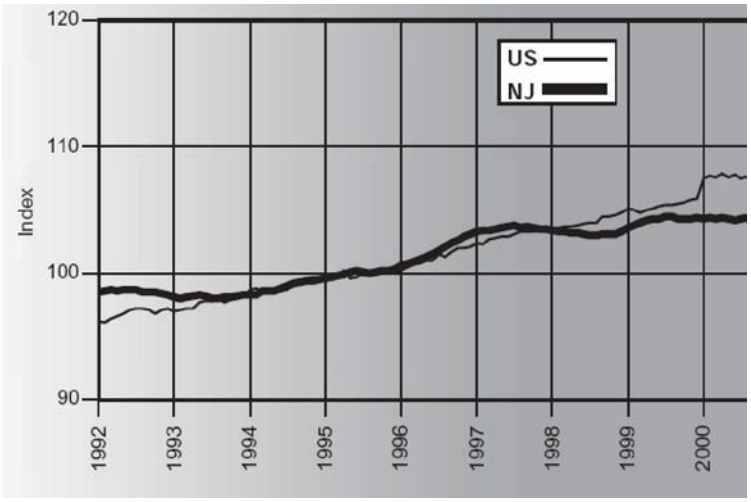
	1990		2000		Change, 1990 to 2000			
	New Jersey		New Jersey		New Jersey		Northeast	USA
Employment Status	Number	%	Number	%	Number	Percent Point*	Percent Point*	Percent Point*
Population 16 years & over	6,129,923	-	6,546,155	-	**416,232**	**-**	**-**	**-**
Employed in Civilian Labor Force	3,868,698	63.1%	3,950,029	60.3%	**81,331**	**-2.8**	**-1.2**	**-0.6**
Employed in Armed Forces	24,116	0.4%	11,248	0.2%	**-12,868**	**-0.2**	**-0.1**	**-0.4**
Unemployed	235,975	3.8%	243,116	3.7%	**7,141**	**-0.1**	**-0.4**	**-0.4**
Not in labor force	2,001,134	32.6%	2,341,762	35.8%	**340,628**	**3.1**	**1.7**	**1.4**

***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

The last three columns of Table 4-2 compare trends in employment status between 1990 and 2000 for New Jersey, the Northeast, and the country. All the categories except population not in the labor force decreased in share between 1990 and 2000 for all the geographies. There was a sharp decline in the share of population employed in civilian jobs in New Jersey compared to the Northeast and the country.

Figure 4-1 compares the civilian labor force index of New Jersey and the US (1992-2000). New Jersey's labor force in civilian jobs was higher than the national rate in the early 1990s. In the mid-90s both rates were similar, but towards the end of the decade New Jersey's labor rate fell below the national rate. At the same time, the increase in the population not in the labor force in New Jersey was relatively higher than in the Northeast and the country.

Figure 4-1: Civilian Labor Force Comparison: US and NJ (1992-2000)



Source: July 2005 New Jersey Economic Indicators by New Jersey Department of Labor and Workforce Development

4.2 Employment Opportunities

As shown in Table 4-3, New Jersey's net employment gain over the past decade was 6.3% (or 237,698 jobs). However, there was a significant variation in employment gains and losses at the county level. Employment growth locations have shifted southward and westward from the conventional northeastern NY metro counties immediately across from New York City. The highest growth in new employment numbers was in Somerset, Middlesex and Morris counties. In central and southern New Jersey, counties with major urban centers like Atlantic (Atlantic City), Camden (Camden), and Mercer (Trenton) have all lost jobs during the past decade. In northern New Jersey, there was a mixed trend: counties like Passaic (Paterson) and Union (Elizabeth) showed employment losses while Hudson (Jersey City), Essex (Newark) and Middlesex (New Brunswick) showed employment gains.

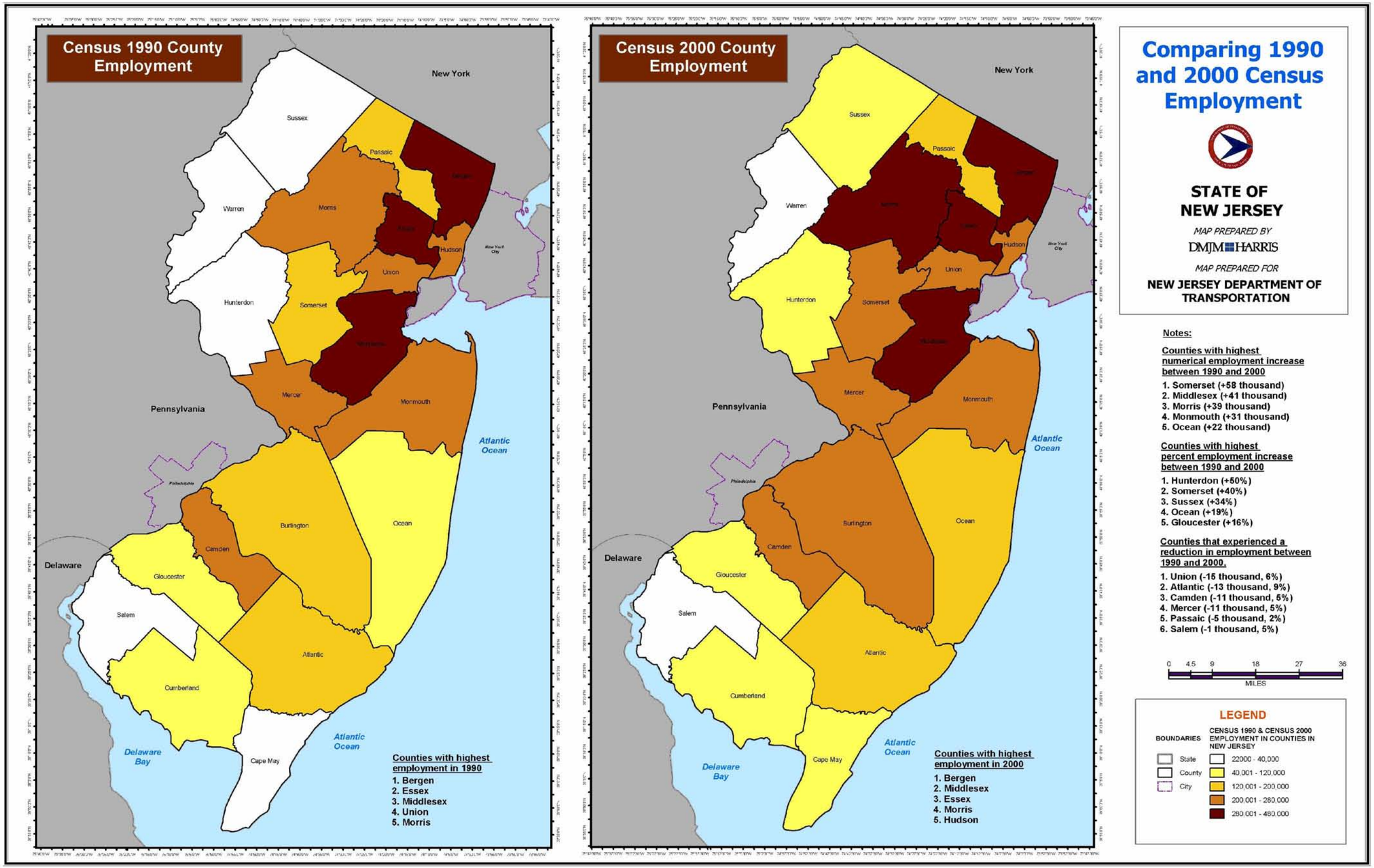
Table 4-3: Change in Employment Opportunities by County (1990-2000)

County	1990 Total Employment Number	2000 Total Employment Number	Change, 1990 to 2000 Number	Change, 1990 to 2000 Percentage
Atlantic	138,363	125,739	-12,624	-9.1
Bergen	458,795	480,600	21,805	4.8
Burlington	191,537	202,535	10,998	5.7
Camden	228,161	216,931	-11,230	-4.9
Cape May	39,145	40,012	867	2.2
Cumberland	59,529	60,400	871	1.5
Essex	384,306	396,200	11,894	3.1
Gloucester	85,951	99,467	13,516	15.7
Hudson	248,587	257,200	8,613	3.5
Hunterdon	37,966	56,800	18,834	49.6
Mercer	220,373	209,758	-10,615	-4.8
Middlesex	364,823	406,200	41,377	11.3
Monmouth	221,217	252,600	31,383	14.2
Morris	256,718	296,100	39,382	15.3
Ocean	116,468	138,900	22,432	19.3
Passaic	196,101	191,500	-4,601	-2.3
Salem	23,802	22,600	-1,202	-5.0
Somerset	144,916	203,100	58,184	40.2
Sussex	29,953	40,200	10,247	34.2
Union	266,633	251,600	-15,033	-5.6
Warren	33,100	35,700	2,600	7.9
Total	**3,746,444**	**3,984,142**	**237,698**	**6.3**

Source: NJTPA, DVRPC and SJTPO MPO Employment datasets

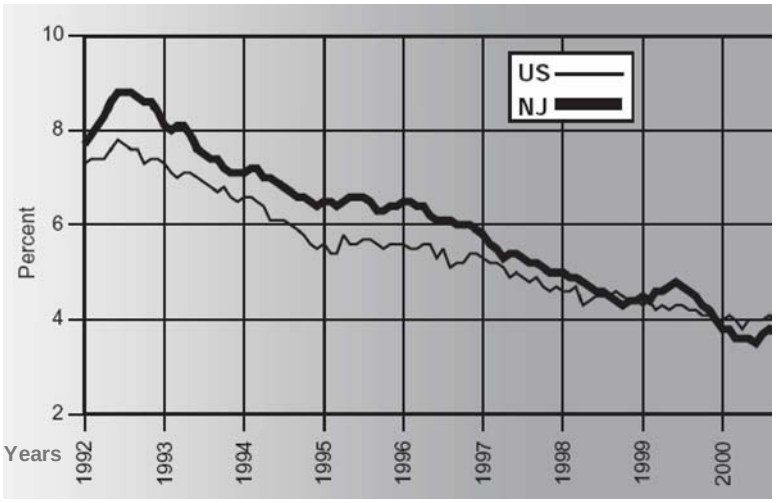
This comparison of 1990 and 2000 employment opportunities by county is shown graphically in Figure 4-2.

Figure 4-2: Employment Change By County (1990-2000)



New Jersey's unemployment rate in 2000 was low, only 3.7% of the total population 16 years or older, similar to the unemployment rate of 3.8% in 1990. However, the past decade saw significant variations in unemployment rates (see Figure 4-3). New Jersey's unemployment rate shot up drastically between 1990 and 1992, coinciding with an economic depression. From 1992, the unemployment rate gradually decreased, but it was always higher than the national rate until 1998. Even during 2000, New Jersey's unemployment rate was higher than the national rate, although both the rates were almost equal by the end of the century.

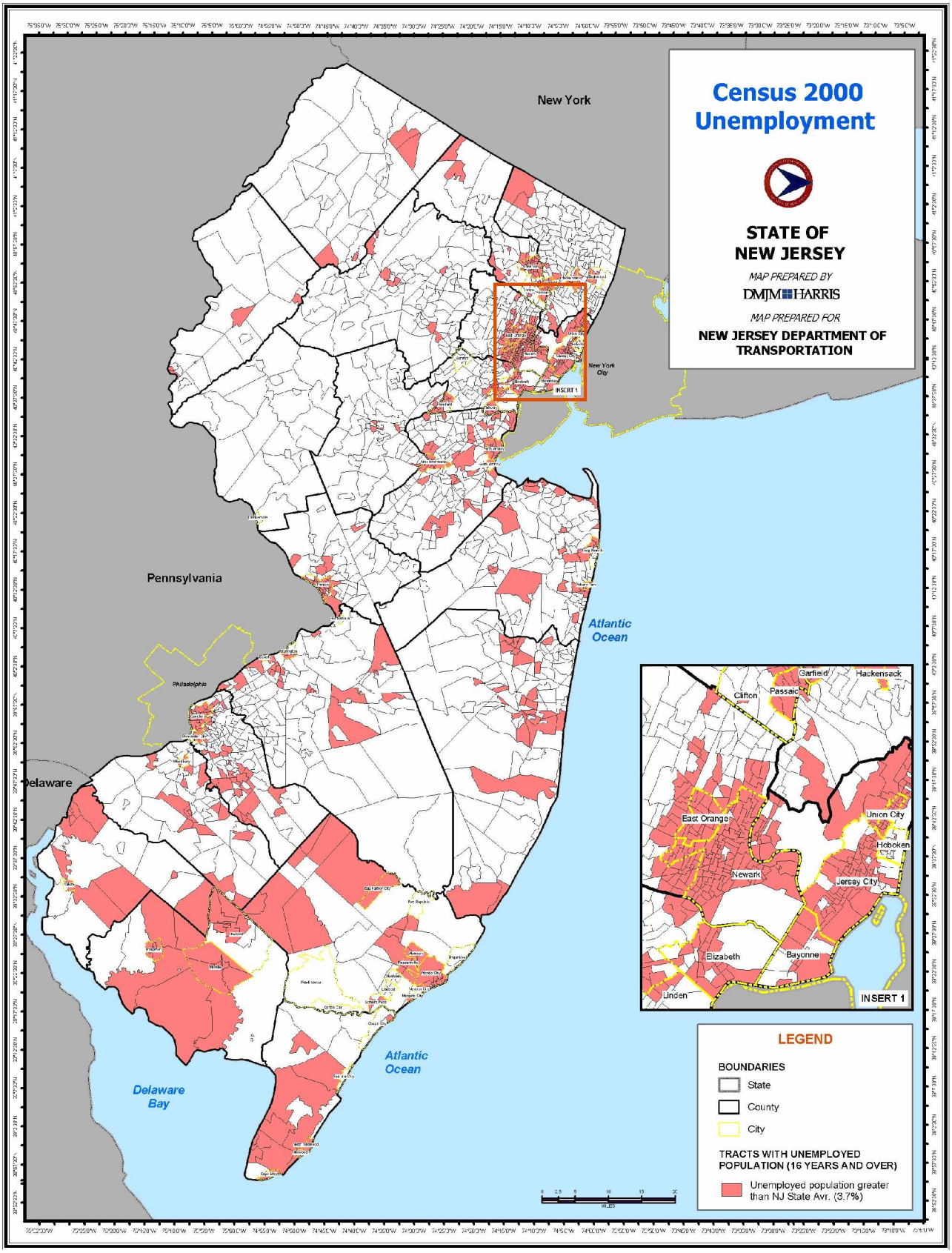
Figure 4-3: Unemployment Rate Comparison: US and NJ (1992-2000)



Source: July 2005 New Jersey Economic Indicators by New Jersey Department of Labor and Workforce Development

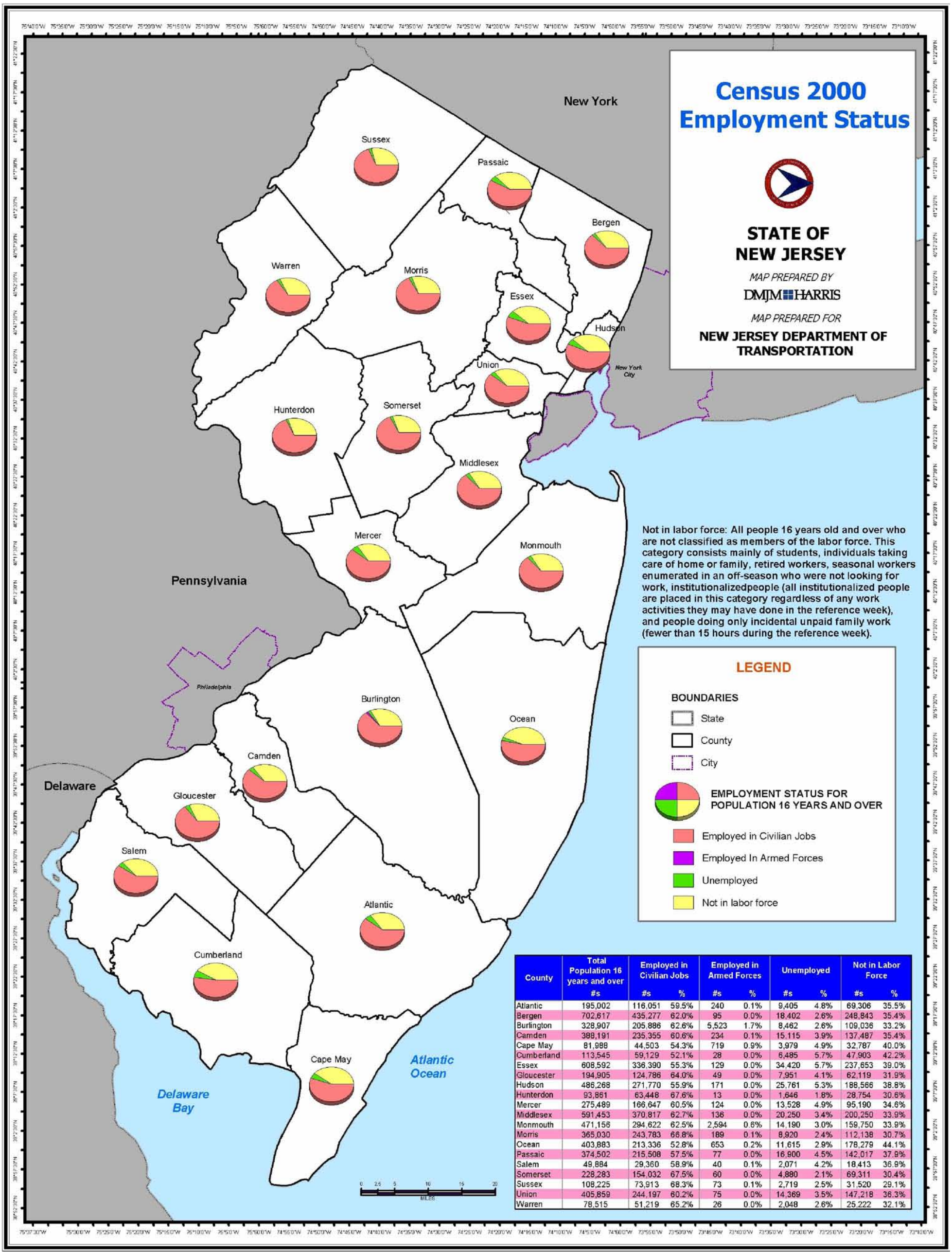
This unemployment was concentrated in certain pockets in New Jersey. Figure 4-4 shows areas with unemployment rates higher than the state average of 3.7%. Most cities and areas around them had a high unemployment rate in 2000, especially in northern New Jersey. In southern New Jersey, large contiguous areas in southern Cape May County, Cumberland County and Atlantic County showed high rates of unemployment in 2000. However, this could be partly attributed to the relatively large size of tracts in southern New Jersey.

Figure 4-4: Unemployed Population Concentration in New Jersey (2000)



A county-level analysis of the distribution of population 16 years and older based on employment status is shown in Figure 4-5. The pattern in all the counties was similar. Essex, Hudson, Middlesex, Bergen and Passaic counties were the top five counties in New Jersey in terms of unemployed population in 2000. All these counties are located in the northeastern part of New Jersey, which lies in the New York metro area. Essex County had the largest number (34,000 people) as well as share (5.7%) of unemployed people 16 years and older in 2000.

Figure 4-5: Distribution of Population 16 Years and Older by Employment Status and County (2000)



County	Total Population 16 years and over	Employed in Civilian Jobs		Employed in Armed Forces		Unemployed		Not in Labor Force	
	#s	#s	%	#s	%	#s	%	#s	%
Atlantic	195,002	116,051	59.5%	240	0.1%	9,405	4.8%	69,306	35.5%
Bergen	702,617	435,277	62.0%	95	0.0%	18,402	2.6%	248,843	35.4%
Burlington	328,907	205,886	62.6%	5,523	1.7%	8,462	2.6%	109,036	33.2%
Camden	388,191	235,355	60.6%	234	0.1%	15,115	3.9%	137,487	35.4%
Cape May	81,988	44,503	54.3%	719	0.9%	3,979	4.9%	32,787	40.0%
Cumberland	113,545	59,129	52.1%	28	0.0%	6,485	5.7%	47,903	42.2%
Essex	608,592	336,390	55.3%	129	0.0%	34,420	5.7%	237,653	39.0%
Gloucester	194,905	124,786	64.0%	49	0.0%	7,951	4.1%	62,119	31.9%
Hudson	486,268	271,770	55.9%	171	0.0%	25,761	5.3%	188,566	38.8%
Hunterdon	93,861	63,448	67.6%	13	0.0%	1,646	1.8%	28,754	30.6%
Mercer	275,489	166,647	60.5%	124	0.0%	13,528	4.9%	95,190	34.6%
Middlesex	591,453	370,817	62.7%	136	0.0%	20,250	3.4%	200,250	33.9%
Monmouth	471,156	294,622	62.5%	2,594	0.6%	14,190	3.0%	159,750	33.9%
Morris	365,030	243,783	66.8%	189	0.1%	8,920	2.4%	112,138	30.7%
Ocean	403,883	213,336	52.8%	653	0.2%	11,615	2.9%	178,279	44.1%
Passaic	374,502	215,508	57.5%	77	0.0%	16,900	4.5%	142,017	37.9%
Salem	49,884	29,360	58.9%	40	0.1%	2,071	4.2%	18,413	36.9%
Somerset	228,283	154,032	67.5%	60	0.0%	4,880	2.1%	69,311	30.4%
Sussex	108,225	73,913	68.3%	73	0.1%	2,719	2.5%	31,520	29.1%
Union	405,859	244,197	60.2%	75	0.0%	14,369	3.5%	147,218	36.3%
Warren	78,515	51,219	65.2%	26	0.0%	2,048	2.6%	25,222	32.1%

5. Journey-to-Work Characteristics

The journey-to-work data is reported on the decennial census "long form," which allows only one answer to the question about means of travel to work. Thus, details on multi-modal trips are not accounted for in the journey-to-work datasets. Information on travel for other purposes is also not available.

5.1 Resident Labor Force

This section discusses work travel trends for workers residing in New Jersey, as well as the work destinations to which they travel. The total number of workers residing in New Jersey did not change dramatically between 1990 and 2000 (from 3.81 million in 1990 to 3.88 million in 2000, or about 1.7%). In 2000, approximately 55% worked within their county of residence, 33% worked in a New Jersey where they did not live and 12% worked outside New Jersey (see Table 5-1 and Figure 5-1). Of those 12%, approximately 8% worked in New York City and 2% worked in Philadelphia. Nationally, approximately 73% of workers worked in the county where they lived.

New Jersey shows a significantly different pattern of journey-to-work than the national picture. The percentage of people who worked in their county of residence declined during the past decade. As a result, average work travel time increased from 25 minutes 18 seconds, in 1990 to 30 minutes in 2000, an increase similar to the national average. It is interesting to note that the average work travel time nationally in 2000 (25 minutes and 30 seconds) was almost equal to the average work travel time for New Jersey in 1990. This shows the level of congestion and length of work trips experienced by the New Jersey workers. Nationally, the average work travel time increased by more than two minutes between 1990 and 2000. Significantly, the overall increase in travel time between 1980 and 1990 was only 40 seconds.

More than half of the new workers in the past decade (53%, or 33,980) traveled outside New Jersey. This is an emerging trend that will affect future average work travel length as well as average time for work trips. It will strain the already congested transportation infrastructure even further, and require major investments like a new passenger train tunnel into New York City to accommodate the increase in travel to work there.

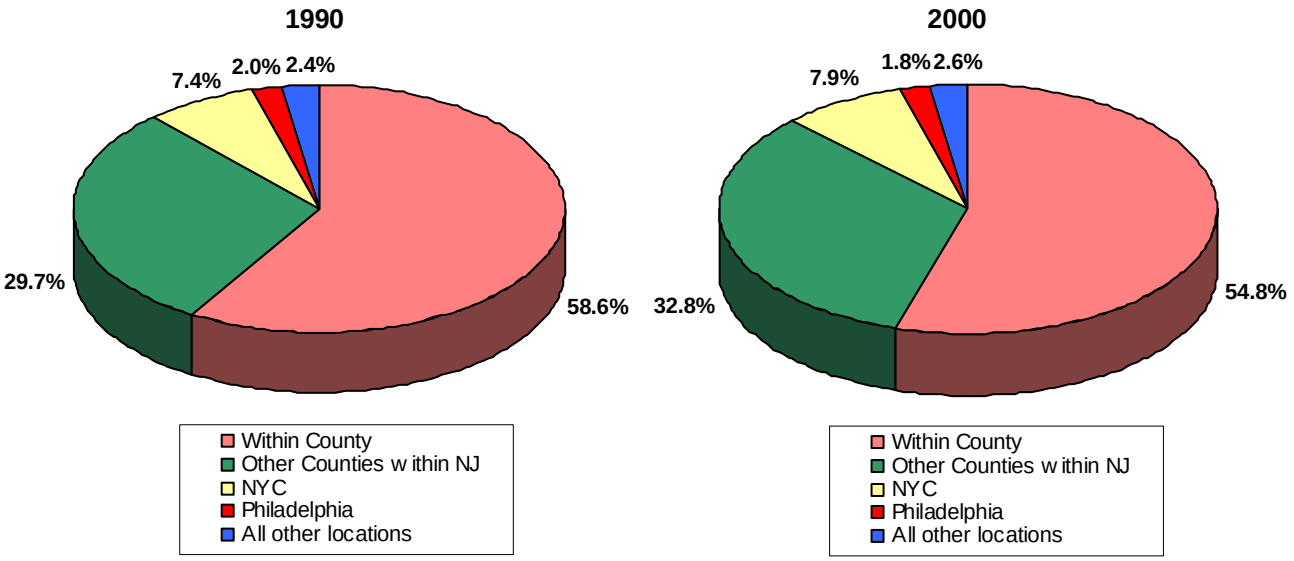
Table 5-1: Locations of Workplaces of County Residents in New Jersey (1990-2000)

Work Place of County Residents	1990 New Jersey		2000 New Jersey		Change, 1990 to 2000 New Jersey	
	Number	Percentage	Number	Percentage	Number	Percent Point*
Workers 16 years and Over	3,812,684	100	3,876,433	100	**63,749**	**-**
Within County	2,235,202	58.6	2,126,179	54.8	**-109,023**	**-3.8**
Other Counties within NJ	1,131,814	29.7	1,270,606	32.8	**138,792**	**3.1**
Outside NJ (Total)	445,668	11.7	479,648	12.4	**33,980**	**0.7**
NYC	280,299	7.4	307,913	7.9	**27,614**	**0.6**
Philadelphia	74,806	2.0	71,594	1.8	**-3,212**	**-0.1**
All other locations	90,563	2.4	100,141	2.6	**9,578**	**0.2**

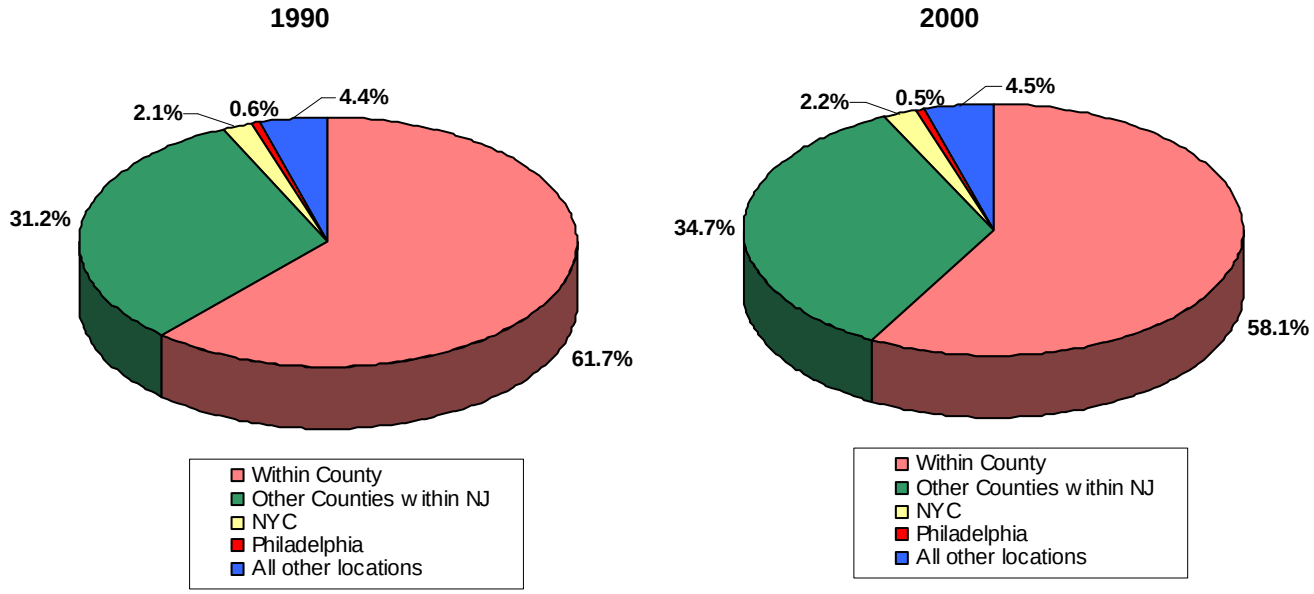
***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

Figure 5-1: New Jersey Journey-To-Work Patterns (1990-2000)

Origin Based Journey-To-Work Patterns (Place of Residence)



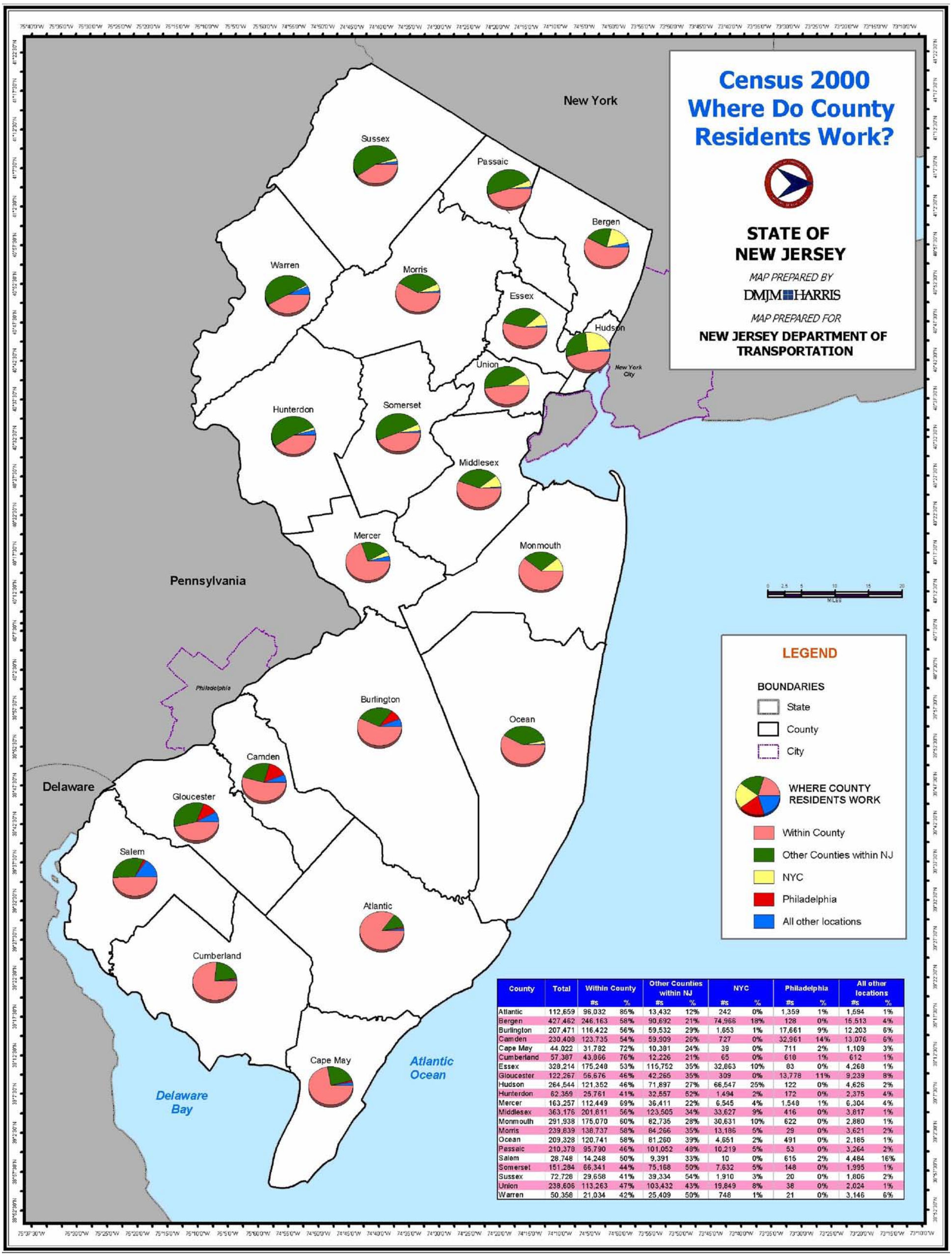
Destination Based Journey-To-Work Patterns (Place of Work)



An analysis of travel patterns based on workers' county of residence in 2000 is shown in Figure 5-2. Some of the important patterns are noted below:

- Over 90% of workers residing in 13 of the 21 counties work within New Jersey.
- Eight-five percent of Atlantic County workers, 76% of Cumberland County workers and 72% of Cape May County workers worked within their respective counties of residence in 2000.
- Bergen County had the largest number of workers residing and working within the same county, with 246,000, followed by Middlesex County with 202,000.
- The counties with the largest share, as well as total number, of workers traveling to New York City for work were Hudson County (25%, 67,000) and Bergen County (18%, 75,000).
- The counties with the largest share of workers traveling to Philadelphia for work were Camden County (14%, 33,000), Gloucester County (11%, 14,000) and Burlington County (9%, 16,000).
- The largest share of workers that work outside New Jersey in places other than New York City and Philadelphia was found in Salem County (16%, 4,000) and Gloucester County (8%, 9,000). Bergen County topped the list for the number of workers that work outside New Jersey in places other than New York City and Philadelphia with 16,000, followed by Camden County with 13,000 and Burlington County with 12,000.

Figure 5-2: Workplace by County of Residence (2000)



County	Total	Within County		Other Counties within NJ		NYC		Philadelphia		All other locations	
		#s	%	#s	%	#s	%	#s	%	#s	%
Atlantic	112,659	96,032	85%	13,432	12%	242	0%	1,359	1%	1,594	1%
Bergen	427,462	246,163	58%	90,692	21%	74,966	18%	128	0%	15,513	4%
Burlington	207,471	116,422	56%	59,532	29%	1,653	1%	17,661	9%	12,203	6%
Camden	230,408	123,735	54%	59,909	26%	727	0%	32,961	14%	13,076	6%
Cape May	44,022	31,782	72%	10,381	24%	39	0%	711	2%	1,109	3%
Cumberland	57,387	43,866	76%	12,226	21%	65	0%	618	1%	612	1%
Essex	328,214	175,248	53%	115,752	35%	32,863	10%	83	0%	4,268	1%
Gloucester	122,267	56,676	46%	42,265	35%	309	0%	13,778	11%	9,239	8%
Hudson	264,544	121,352	46%	71,897	27%	66,547	25%	122	0%	4,626	2%
Hunterdon	62,359	25,761	41%	32,557	52%	1,494	2%	172	0%	2,375	4%
Mercer	163,257	112,449	69%	36,411	22%	6,545	4%	1,548	1%	6,304	4%
Middlesex	363,176	201,811	56%	123,505	34%	33,627	9%	416	0%	3,817	1%
Monmouth	291,938	175,070	60%	82,735	28%	30,631	10%	622	0%	2,880	1%
Morris	239,639	136,737	58%	84,266	35%	13,186	5%	29	0%	3,621	2%
Ocean	209,328	120,741	58%	81,260	39%	4,651	2%	491	0%	2,185	1%
Passaic	210,378	95,790	46%	101,052	48%	10,219	5%	53	0%	3,264	2%
Salem	28,748	14,248	50%	9,391	33%	10	0%	615	2%	4,484	16%
Somerset	151,284	66,341	44%	75,168	50%	7,632	5%	148	0%	1,995	1%
Sussex	72,728	29,658	41%	39,334	54%	1,910	3%	20	0%	1,806	2%
Union	238,606	113,263	47%	103,432	43%	19,849	8%	38	0%	2,024	1%
Warren	50,358	21,034	42%	25,409	50%	748	1%	21	0%	3,146	6%

5.2 New Jersey Work Force

This section discusses the work travel trend for employees working in New Jersey and where they travel from to work. The total number of employees with jobs in New Jersey increased by 37,166 in the past decade, as shown in Table 5-2. In 2000, approximately 58% of the work force both resided and worked within the same county, 35% lived in a county within New Jersey other than in the county of work, and 7% lived outside New Jersey. As shown in Table 5-2, of those who lived outside New Jersey, 2% lived in New York City, less than 1% lived in Philadelphia and about 5% lived outside New Jersey in some place other than New York City or Philadelphia.

New Jersey's work force trend between 1990 and 2000 was similar to the trend discussed earlier for New Jersey's resident labor force. The number of workers living within the county of work declined within the past decade, while the share of workers traveling to a county other than their counties of residence increased.

Within the past decade the inflow of new employees from outside New Jersey was not as drastic as the outflow of New Jersey's resident labor force to workplaces outside New Jersey. While more than half of the new resident workers in the past decade (53%) traveled to locations outside New Jersey, only 20% of new NJ employees traveled to New Jersey from outside the state.

One of the reasons for this higher rate of outflow was that the net new resident labor force that evolved in New Jersey during the past decade (63,749) was almost double the net new jobs created in the state during the same period (37,166). Another prominent reason was the mismatch between the types of new jobs created and the skill sets of the available resident work force.

Table 5-2: Residence of Workers Employed in New Jersey (1990-2000)

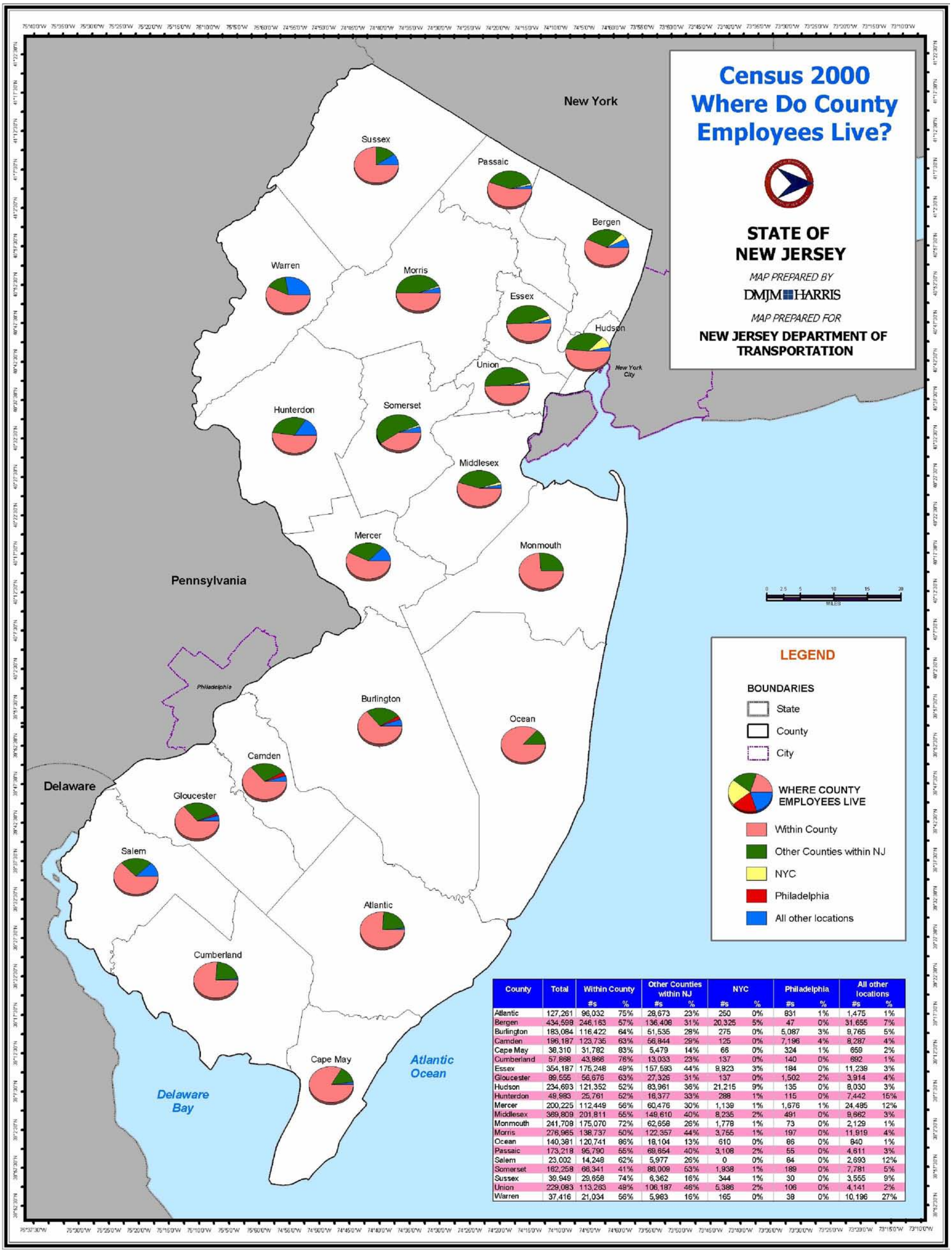
Residence of those employed	1990 New Jersey		2000 New Jersey		Change, 1990 to 2000 New Jersey	
	Number	Percentage	Number	Percentage	Number	Percent Point*
Workers 16 years and Over	3,622,574	-	3,659,740	-	**37,166**	**-**
Within County	2,235,202	61.7	2,126,179	58.1	**-109,023**	**-3.6**
Other Counties within NJ	1,131,814	31.2	1,270,606	34.7	**138,792**	**3.5**
Outside NJ (Total)	255,558	7.1	262,955	7.2	**7,397**	**0.1**
NYC	75,872	2.1	79,199	2.2	**3,327**	**0.1**
Philadelphia	21,348	0.6	18,586	0.5	**-2,762**	**-0.1**
All other locations	158,338	4.4	165,170	4.5	**6,832**	**0.1**

***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

An analysis of the place-of-residence pattern for workers with jobs in New Jersey for each of the 21 counties in 2000 is shown in Figure 5-3. Some of the important patterns are noted below:

- In fifteen of the 21 counties in New Jersey, more than 90% of workers resided within New Jersey.
- The top three counties in terms of share of workers both residing and working within the same county were Ocean (86%), Cumberland (76%) and Atlantic (75%).
- Nine percent of the workers with jobs in Hudson County reside in New York City, contributing to a reverse commute trend. This county had the largest share of workers residing in New York City. Bergen County has the second largest share, with 5%.
- Several counties had a significant share of workers who worked in these counties and lived outside New Jersey other than in New York City and Philadelphia. Warren County had the largest share as well as number of such workers at (27%, 10,000). Other counties with large shares of such workers were Hunterdon (15%, 7,000), Mercer (12%, 24,000) and Salem (12%, 3,000).
- In general, most of the North Jersey counties showed more inter-county work travel, whereas work-related travel within the county was predominant for most of the South Jersey counties.

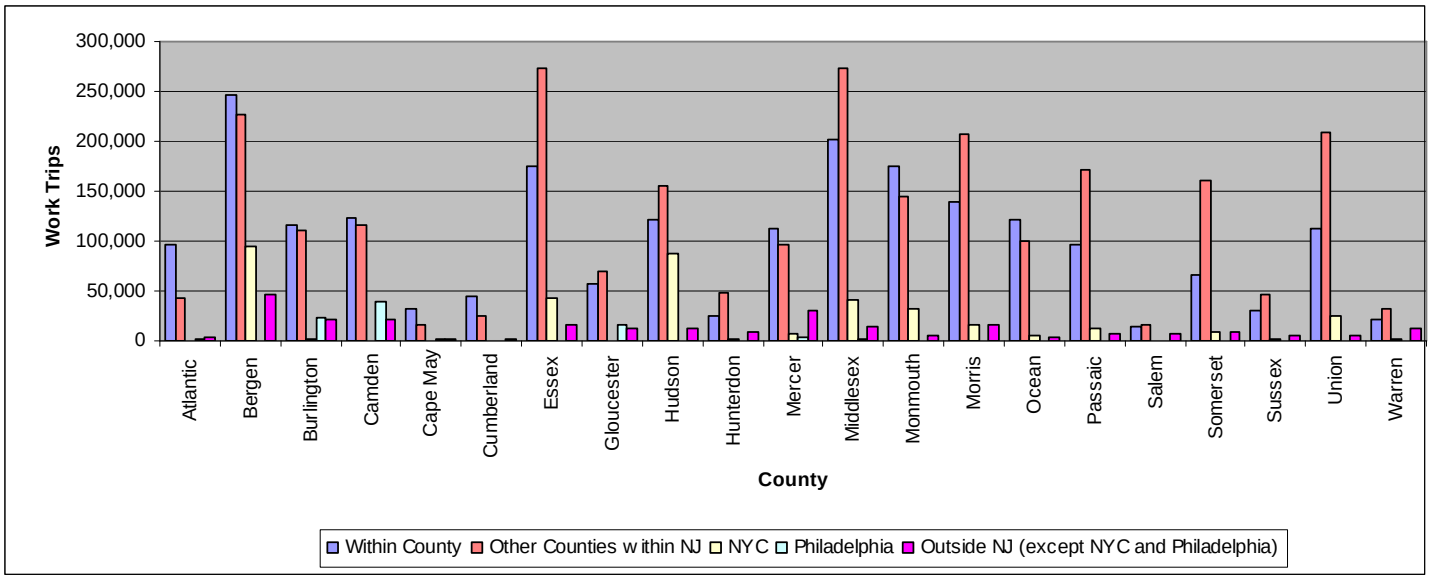
Figure 5-3: Residence of Workers Employed in New Jersey (2000)



County	Total	Within County		Other Counties within NJ		NYC		Philadelphia		All other locations	
		#s	%	#s	%	#s	%	#s	%	#s	%
Atlantic	127,261	96,032	75%	28,673	23%	250	0%	831	1%	1,475	1%
Bergen	434,598	246,163	57%	136,408	31%	20,325	5%	47	0%	31,655	7%
Burlington	183,084	116,422	64%	51,535	28%	275	0%	5,087	3%	9,765	5%
Camden	196,187	123,735	63%	56,844	29%	125	0%	7,196	4%	8,287	4%
Cape May	38,310	31,782	83%	5,479	14%	66	0%	324	1%	659	2%
Cumberland	57,868	43,866	76%	13,033	23%	137	0%	140	0%	892	1%
Essex	354,187	175,248	49%	157,593	44%	9,923	3%	184	0%	11,239	3%
Gloucester	89,555	56,676	63%	27,326	31%	137	0%	1,502	2%	3,914	4%
Hudson	234,693	121,352	52%	83,961	36%	21,215	9%	135	0%	8,030	3%
Hunterdon	49,983	25,761	52%	16,377	33%	288	1%	115	0%	7,442	15%
Mercer	200,225	112,449	56%	60,476	30%	1,139	1%	1,676	1%	24,485	12%
Middlesex	389,809	201,811	55%	149,610	40%	8,235	2%	491	0%	9,662	3%
Monmouth	241,708	175,070	72%	62,658	26%	1,778	1%	73	0%	2,129	1%
Morris	276,965	138,737	50%	122,357	44%	3,755	1%	197	0%	11,919	4%
Ocean	140,381	120,741	86%	18,104	13%	610	0%	86	0%	840	1%
Passaic	173,218	95,790	55%	69,654	40%	3,108	2%	55	0%	4,611	3%
Salem	23,002	14,248	62%	5,977	26%	0	0%	84	0%	2,693	12%
Somerset	162,258	66,341	41%	86,009	53%	1,938	1%	189	0%	7,781	5%
Sussex	39,949	29,658	74%	6,362	16%	344	1%	30	0%	3,555	9%
Union	229,083	113,263	49%	106,187	46%	5,386	2%	106	0%	4,141	2%
Warren	37,416	21,034	56%	5,983	16%	165	0%	38	0%	10,196	27%

The data discussed above provides information about the overall travel patterns in New Jersey. As shown in Figure 5-4, the predominant travel patterns to reach work in most counties was between counties within New Jersey. This pattern was highest in Middlesex and Essex counties, with more than 250,000 workers each. Bergen County had the largest number of workers living and working within a county (almost 250,000 workers).

Figure 5-4: Travel Pattern to Work by County (2000)



As shown in Figure 5-4 and Table 5-3 below, the number of workers traveling for work to/from New York City and Philadelphia was significant in only a few counties. The numbers of workers traveling to/from New York were highest for Bergen County (95,000), followed by Hudson County (88,000). Also, more than 40,000 workers each traveled from Essex County and Middlesex County to New York City.

Camden County had the maximum number of workers traveling for work to/from Philadelphia (40,000), and Bergen County also has the highest number of workers traveling for work to/from areas outside New Jersey but other than New York City and Philadelphia (47,000).

Table 5-3: Workers' Travel Patterns to Work by County (2000)

County	Total	Within County	Other Counties within NJ	NYC	Philadelphia	All other locations
Atlantic	143,888	96,032	42,105	492	2,190	3,069
Bergen	615,897	246,163	227,100	95,291	175	47,168
Burlington	274,133	116,422	111,067	1,928	22,748	21,968
Camden	302,860	123,735	116,753	852	40,157	21,363
Cape May	50,550	31,782	15,860	105	1,035	1,768
Cumberland	71,389	43,866	25,259	202	758	1,304
Essex	507,153	175,248	273,345	42,786	267	15,507
Gloucester	155,146	56,676	69,591	446	15,280	13,153
Hudson	377,885	121,352	155,858	87,762	257	12,656
Hunterdon	86,581	25,761	48,934	1,782	287	9,817
Mercer	251,033	112,449	96,887	7,684	3,224	30,789
Middlesex	531,174	201,811	273,115	41,862	907	13,479
Monmouth	358,576	175,070	145,393	32,409	695	5,009
Morris	378,067	138,737	206,623	16,941	226	15,540
Ocean	228,968	120,741	99,364	5,261	577	3,025
Passaic	287,806	95,790	170,706	13,327	108	7,875
Salem	37,502	14,248	15,368	10	699	7,177
Somerset	247,201	66,341	161,177	9,570	337	9,776
Sussex	83,019	29,658	45,696	2,254	50	5,361
Union	354,426	113,263	209,619	25,235	144	6,165
Warren	66,740	21,034	31,392	913	59	13,342
New Jersey	**5,409,994**	**2,126,179**	**2,541,212**	**387,112**	**90,180**	**265,311**

It is interesting to see the change in work travel patterns by county during the past decade (1990-2000). Table 5-4 and Figure 5-5 show this comparison. Seven of the 21 counties lost total workers between 1990 and 2000, and 14 of the counties had fewer workers working within their county of residence. On the contrary, all 21 counties showed an increase in work travel to some other county in New Jersey, and all but two counties showed an increase in work travel to New York City.

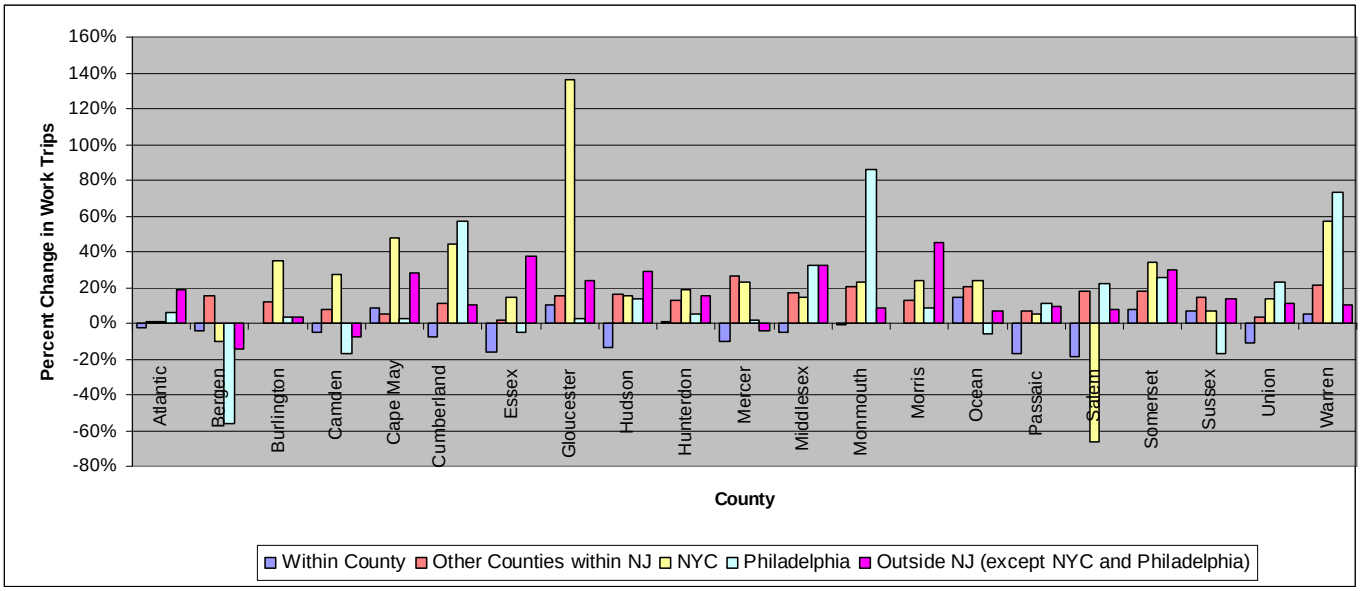
These are all indicators of an emerging work travel pattern with longer work trips that will strain the transportation infrastructure even further, with significantly higher vehicle miles traveled (VMT) and vehicle hours traveled (VHT). This portends a future with more and more transportation gridlocks, affecting quality of life and significantly increasing the amount of time and money residents of this state must devote to travel. If congestion and transportation costs rise significantly, existing businesses and residents will increasingly choose to relocate outside the state and region, affecting New Jersey's economic dominance in the nation.

Table 5-4: Change in Workers' Travel Patterns to Work by County (1990-2000)

County	Numerical Change (Percent Change), 1990-2000					
	Total Workers	Within County	Other Counties within NJ	NYC	Philadelphia	All Other Locations
Atlantic	-1,596 (-1%)	-2,569 (-3%)	361 (1%)	3 (1%)	121 (6%)	488 (19%)
Bergen	1,039 (0%)	-10,399 (-4%)	30,647 (16%)	-11,118 (-10%)	-228 (-57%)	-7,863 (-14%)
Burlington	14,161 (5%)	-17 (0%)	12,105 (12%)	496 (35%)	786 (4%)	791 (4%)
Camden	-8,342 (-3%)	-6,881 (-5%)	8,400 (8%)	184 (28%)	-8,178 (-17%)	-1,867 (-8%)
Cape May	3,738 (8%)	2,521 (9%)	774 (5%)	34 (48%)	25 (2%)	384 (28%)
Cumberland	-694 (-1%)	-3,619 (-8%)	2,467 (11%)	62 (44%)	274 (57%)	122 (10%)
Essex	-20,284 (-4%)	-33,969 (-16%)	4,192 (2%)	5,317 (14%)	-15 (-5%)	4,191 (37%)
Gloucester	17,813 (13%)	5,304 (10%)	9,301 (15%)	257 (136%)	385 (3%)	2,566 (24%)
Hudson	16,815 (5%)	-19,817 (-14%)	21,932 (16%)	11,816 (16%)	31 (14%)	2,853 (29%)
Hunterdon	7,359 (9%)	235 (1%)	5,553 (13%)	279 (19%)	14 (5%)	1,278 (15%)
Mercer	8,048 (3%)	-12,312 (-10%)	20,131 (26%)	1,430 (23%)	42 (1%)	-1,243 (-4%)
Middlesex	37,613 (8%)	-10,809 (-5%)	39,634 (17%)	5,299 (14%)	222 (32%)	3,267 (32%)
Monmouth	29,592 (9%)	-2,070 (-1%)	24,827 (21%)	6,106 (23%)	322 (86%)	407 (9%)
Morris	31,794 (9%)	-213 (-0.2%)	23,907 (13%)	3,253 (24%)	17 (8%)	4,830 (45%)
Ocean	32,897 (17%)	15,002 (14%)	16,725 (20%)	1,014 (24%)	-38 (-6%)	194 (7%)
Passaic	-7,789 (-3%)	-19,544 (-17%)	10,467 (7%)	596 (5%)	11 (11%)	681 (9%)
Salem	-311 (-1%)	-3,297 (-19%)	2,365 (18%)	-20 (-67%)	125 (22%)	516 (8%)
Somerset	34,325 (16%)	4,889 (8%)	24,675 (18%)	2,427 (34%)	68 (25%)	2,266 (30%)
Sussex	8,653 (12%)	1,991 (7%)	5,865 (15%)	150 (7%)	-10 (-17%)	657 (14%)
Union	-3,153 (-1%)	-14,542 (-11%)	7,726 (4%)	3,024 (14%)	27 (23%)	612 (11%)
Warren	8,260 (14%)	1,093 (5%)	5,530 (21%)	332 (57%)	25 (74%)	1,280 (11%)

Bergen County has shown a reduction in the number of workers in all the categories except workers traveling to other New Jersey counties. On the other hand, counties like Morris, Somerset and Ocean, which are experiencing the effects of the westward and southward expansion of the NY metro area, have shown growth in most or all categories of work-related travel. Essex County lost the most workers during the past decade (20,284), while Middlesex County gained the most (37,613). The greatest percentile growth in work force was observed in Ocean County.

Figure 5-5: Change in Workers' Travel Patterns to Work by County (1990-2000)



5.3 Mode Choice

There are more vehicles registered in New Jersey than licensed drivers. On an average, there are two vehicles for every household in New Jersey and 1.5 vehicles for every job. Not surprisingly, the use of private vehicles for travel to work has increased. Of the 3.8 million workers in New Jersey in 2000, 73% drove alone to work (see Figure 5-6). In addition, 10.6% carpooled, 9.6% used public transportation, 3.1% walked to work, 2.7% worked at home and 0.9% used other means (including motorcycles or bicycles).

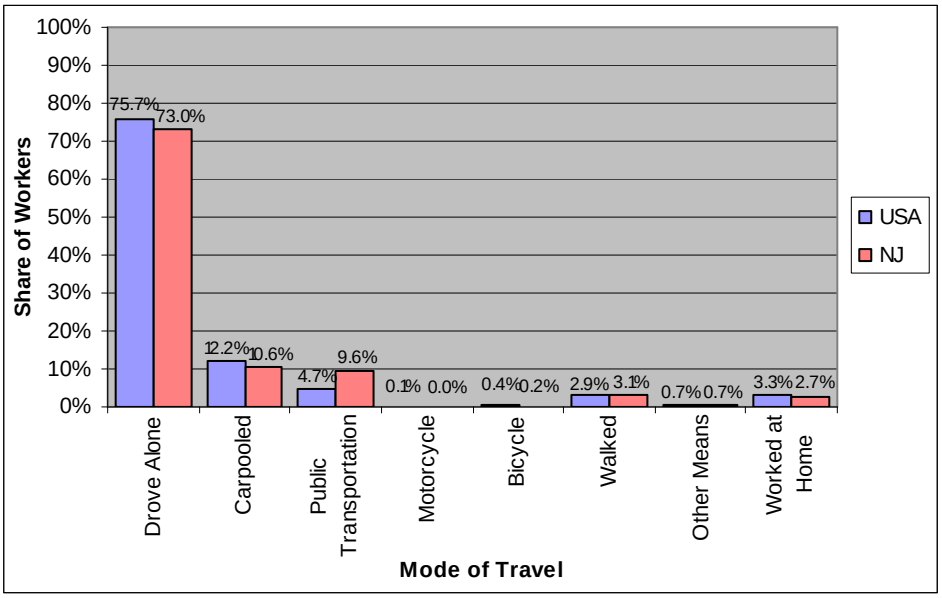
However, the percentage of workers driving alone to work in New Jersey was lower than the national average of 75.7% in 2000. This difference could be attributed to the much higher use of public transportation for work, compared to the national trend of 4.7%. In particular, the Northeast Corridor significantly supports work-related transit trips.

The correlation between households with no vehicles and journey-to-work mode choice is clear. In 2000, 12.7% of New Jersey's households had no vehicles, and 16.5% of workers did

not use privately owned motorized vehicles. Most of the private vehicle owners tended to drive alone or carpool.

Also, most of the public transportation work trips, especially along the Northeast Corridor, were usually multimodal, with workers either using park-and-ride facilities or being dropped at the transit stations or stops. Although these trips involved autos, the census form did not account for multimodal trips and they were all essentially attributed to public transportation. In reality there are even more auto trips than those reported by the census data.

Figure 5-6: Workers by Mode of Travel to Work for New Jersey and United States (2000)



The pattern of commuting to work did not change drastically between 1990 and 2000, as is shown in Table 5-5. Driving to work alone was the predominant mode in 1990 as well as in 2000. The share of workers who drove alone to work in New Jersey increased from 71.6% (2.7 million) in 1990 to 73% (2.8 million) in 2000. The share of workers using public transportation increased from 8.8% in 1990 to 9.6% in 2000. The share of workers using other means of transportation and workers who worked at home also increased in this time period. Of course, some modes of transportation saw a decrease in their usage over the decade. Carpooling as a means of travel to work decreased significantly, from 12.4% (472,000) in 1990 to 10.6% (412,000) in 2000, with 8% of these carpools limited to only two persons. Bicycling to work remained the same, with slightly more than 9,000 workers riding bicycles in 1990 as well as in 2000.

The trends in mode choice for travel to work between 1990 and 2000 for New Jersey and the country as a whole were strikingly similar, as shown in Table 5-5. The only major difference was public transportation (share increased in New Jersey while it decreased nationally).

Table 5-5: Change in Workers' Mode Choice to Work (1990-2000)

	1990		2000		Change, 1990 to 2000		
	New Jersey		New Jersey		New Jersey		US
	Number	Percent	Number	Percent	Number	Percent Point	Percent Point
Workers 16 years and over	3,812,684	100.0	3,876,433	100.0	**63,749**	**-**	**-**
Drove Alone	2,731,027	71.6	2,828,303	73.0	**97,276**	**1.4**	**2.5**
Carpooled	471,943	12.4	412,299	10.6	**-59,644**	**-1.8**	**-1.2**
Public Transportation	336,708	8.8	371,514	9.6	**34,806**	**0.8**	**-0.5**
Buses, Trolley bus, Streetcar	206,164	5.4	214,588	5.5	**8,424**	**0.1**	**-0.5**
Railroad, Subway, Elevated	121,297	3.2	144,143	3.7	**22,846**	**0.5**	**-0.1**
Others (Ferryboat, Taxicab)	9,247	0.2	12,783	0.3	**3,536**	**0.1**	**0.0**
Motorcycle	2,729	0.1	1,830	0.0	**-899**	**-0.1**	**-0.1**
Bicycle	9,183	0.2	9,142	0.2	**-41**	**0.0**	**0.0**
Walked	156,523	4.1	121,305	3.1	**-35,218**	**-1.0**	**-1.0**
Other Means	24,097	0.6	25,484	0.7	**1,387**	**0.1**	**0.0**
Worked at Home	80,474	2.	106,556	2.7	**26,082**	**0.6**	**0.3**

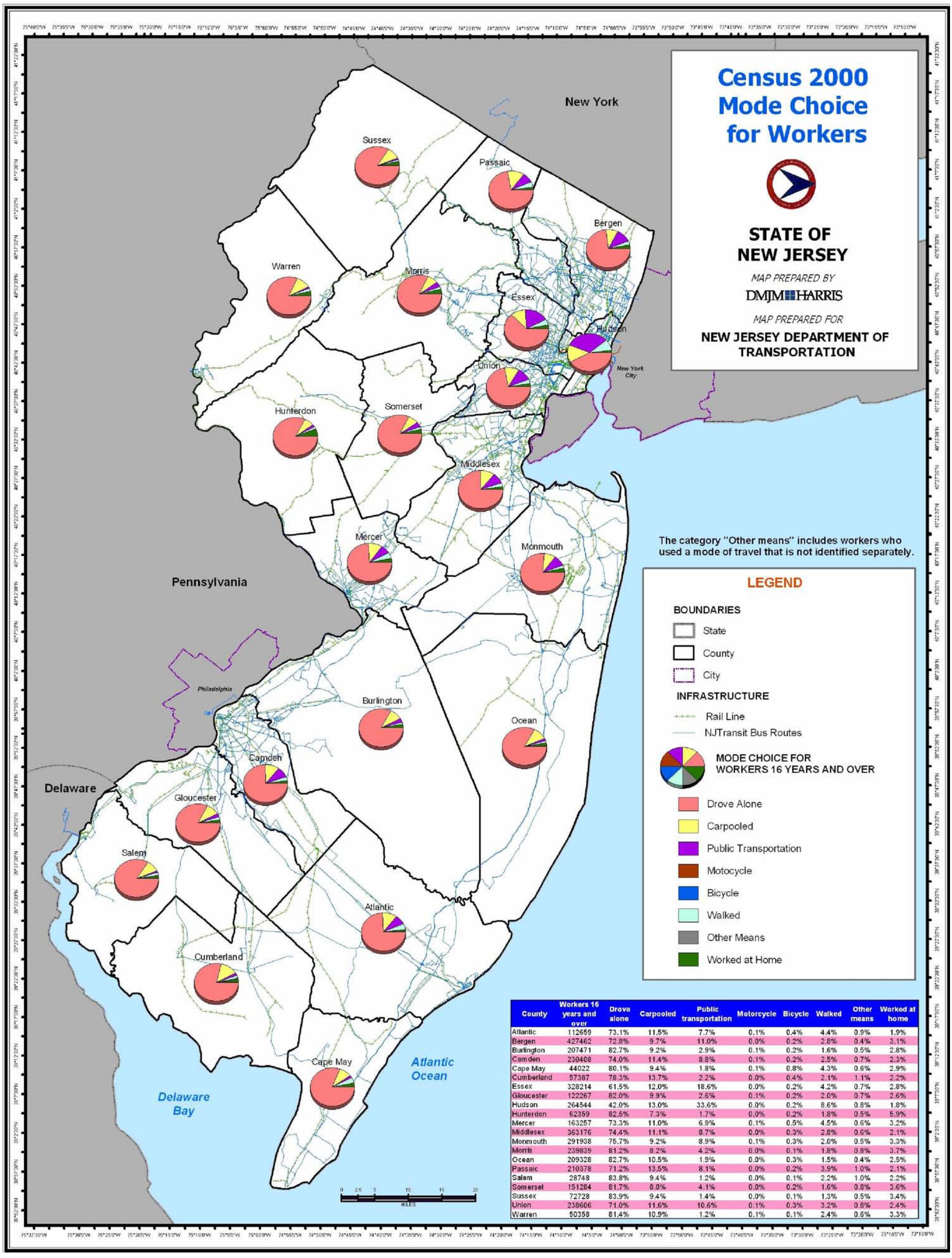
***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

Analysis of the mode choice of workers in each county, shown in Figure 5-7, shows that driving alone is the predominant mode of transportation to work in all the counties in New Jersey except Hudson County. In Hudson County, the share of public transportation (33.6%) was only slightly lower than the share of workers who drove alone to work (42%). This could be attributed to the availability of a dense transit network in the county and direct, fast connectivity through public transit to New York City, where about 40% of Hudson County residents (67,000) work. Other counties with a considerable share of workers using public transit are those along the northeastern boundary of New Jersey and near New York City, such as Essex (18.6%), Bergen (11%) and Union (10.6%). Figure 5-7 clearly shows this correlation between the availability of transit routes and less dependence on driving alone for the northeastern counties.

Carpooling as a mode choice is limited in New Jersey and is most used in Cumberland (13.7%), Hudson (13%), and Essex counties (12%). The share of workers walking to their jobs is less than 5% in all counties except Hudson, where 8.6% of the workers walk to their jobs.

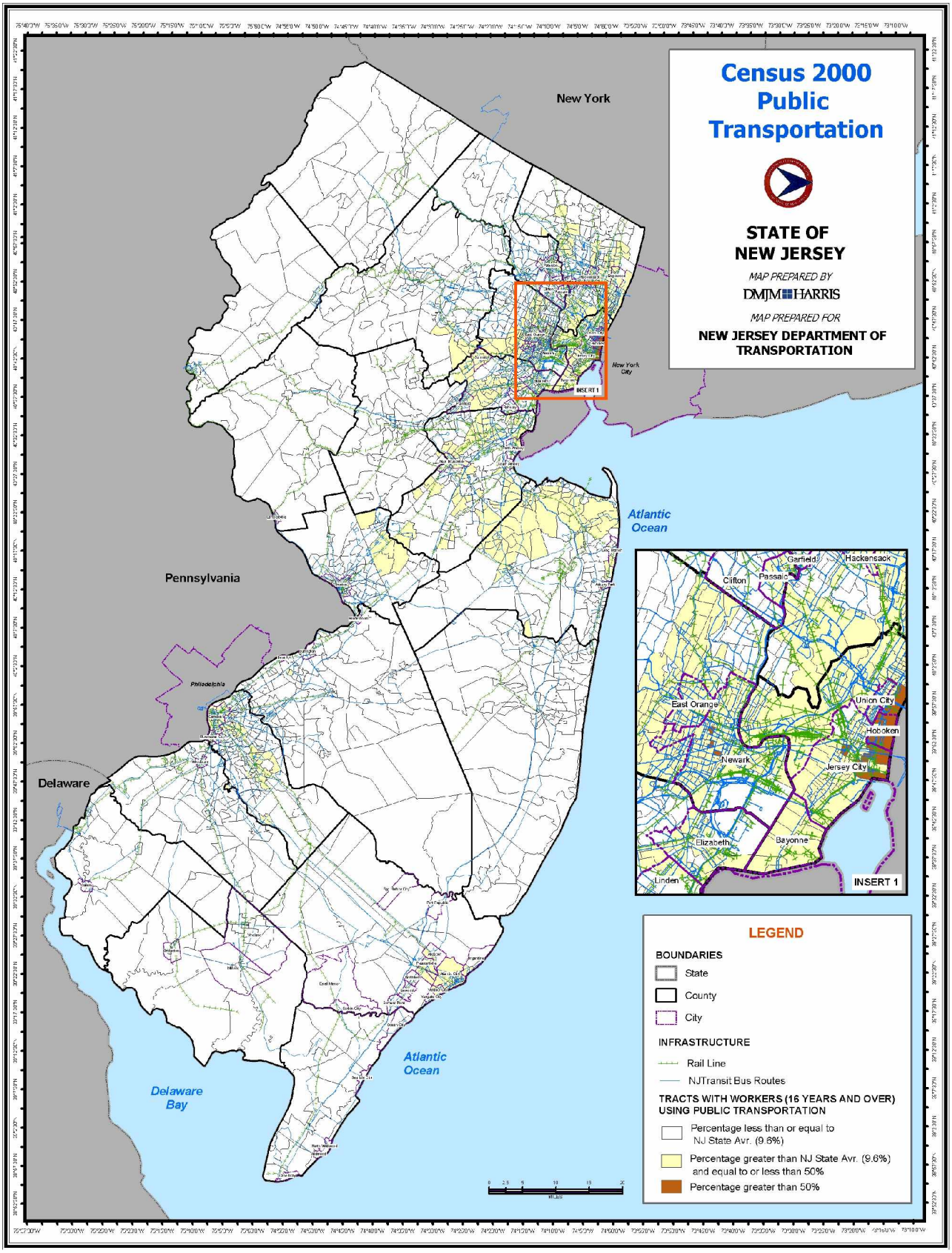
Figure 5-8 shows the census tracts with a high public transportation use (greater than the state average). In addition to the New York metro area, the area along the northern boundary of Monmouth County, towns along NJ TRANSIT's Northeast Corridor in Middlesex and Mercer counties, and the cities of Trenton, Camden and Atlantic City show a high use of public transportation. A higher use of public transportation in northern parts of Monmouth County can be attributed to the ferry service to New York as well as NJ TRANSIT's North Coast Line service.

Figure 5-7: Workers by Mode of Travel to Work by County (2000)



County	Workers 16 years and over	Drove alone	Carpooled	Public transportation	Motorcycle	Bicycle	Walked	Other means	Worked at home
Atlantic	112659	73.1%	11.5%	7.7%	0.1%	0.4%	4.4%	0.9%	1.9%
Bergen	427462	72.8%	9.7%	11.0%	0.0%	0.2%	2.8%	0.4%	3.1%
Burlington	207471	82.7%	9.2%	2.9%	0.1%	0.2%	1.6%	0.5%	2.8%
Camden	230408	74.0%	11.4%	8.8%	0.1%	0.2%	2.5%	0.7%	2.3%
Cape May	44022	80.1%	9.4%	1.8%	0.1%	0.8%	4.3%	0.6%	2.9%
Cumberland	57387	78.3%	13.7%	2.2%	0.0%	0.4%	2.1%	1.1%	2.2%
Essex	328214	61.5%	12.0%	18.6%	0.0%	0.2%	4.2%	0.7%	2.8%
Gloucester	122267	82.0%	9.9%	2.6%	0.1%	0.2%	2.0%	0.7%	2.6%
Hudson	264544	42.0%	13.0%	33.6%	0.0%	0.2%	8.6%	0.8%	1.8%
Hunterdon	62359	82.5%	7.3%	1.7%	0.0%	0.2%	1.8%	0.5%	5.9%
Mercer	163257	73.3%	11.0%	6.9%	0.1%	0.5%	4.5%	0.6%	3.2%
Middlesex	363176	74.4%	11.1%	8.7%	0.0%	0.3%	2.8%	0.6%	2.1%
Monmouth	291938	75.7%	9.2%	8.9%	0.1%	0.3%	2.0%	0.5%	3.3%
Morris	239839	81.2%	8.2%	4.2%	0.0%	0.1%	1.8%	0.8%	3.7%
Ocean	209328	82.7%	10.5%	1.9%	0.0%	0.3%	1.5%	0.4%	2.5%
Passaic	210378	71.2%	13.5%	8.1%	0.0%	0.2%	3.9%	1.0%	2.1%
Salem	28748	83.8%	9.4%	1.2%	0.0%	0.1%	2.2%	1.0%	2.2%
Somerset	151284	81.7%	8.0%	4.1%	0.0%	0.2%	1.6%	0.8%	3.6%
Sussex	72728	83.9%	9.4%	1.4%	0.0%	0.1%	1.3%	0.5%	3.4%
Union	238606	71.0%	11.6%	10.6%	0.1%	0.3%	3.2%	0.8%	2.4%
Warren	50358	81.4%	10.9%	1.2%	0.1%	0.1%	2.4%	0.6%	3.3%

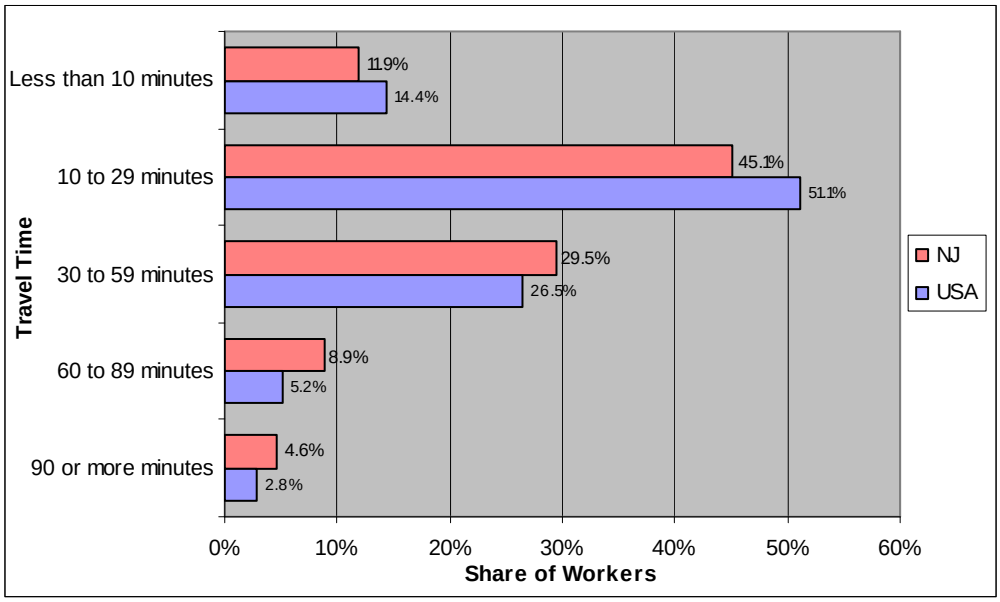
Figure 5-8: Concentration of Workers Who Use Public Transportation to Travel to Their Workplaces in New Jersey (2000)



5.4 Travel Time to Work

In 2000, the average travel time for workers in New Jersey was 30 minutes. This was 4.5 minutes greater than the US average of 25.5 minutes. As discussed earlier, this could be attributed to the fact that more than half of the new labor force generated in New Jersey during the past decade traveled outside New Jersey for jobs. The higher average travel time to work is also based on the higher congestion levels along New Jersey's transportation network. Figure 5-9 shows that the share of New Jersey workers traveling to work in less than a half-hour was much less than the corresponding national share in 2000, while all the categories with travel time longer than 30 minutes showed a much higher share for New Jersey.

Figure 5-9: Workers by Travel Time to Work for New Jersey and United States (2000)



The average travel time in New Jersey also increased between 1990 and 2000, from 25.3 minutes to 30 minutes. However, according to the US Census Bureau, about a minute of the 4.7-minute increase was due to the change in methodology of census data collection[7]. As shown in Table 5-6, the increase in average travel time is due to the increased share of workers traveling to work for 30 minutes or more in 2000 compared to 1990. Consequently, the share of workers in all categories with a travel time below 29 minutes declined between 1990 and 2000. This trend is identical to the national trend, as the last two columns of Table 5-6 show.

[7] Prior to Census 2000, the questionnaire permitted respondents to mark no more than two digits for travel time, limiting reported travel time to 99 minutes. Three digits were made available in the Census 2000 questionnaire, reflecting the greater frequency of extremely long commutes.

It is also important to note that the average work travel time category of 90 minutes and more has doubled during the past decade, with more than 100,000 additional vehicles making a 90+ minute work trip every day compared to 1990. This trend is also seen nationally, where the share of workers in the category of 90+ minutes of travel time almost doubled, from 1.6% (1.8 million workers) in 1990 to 2.8% (3.4 million workers).

Table 5-6: Workers by Travel Time to Work in New Jersey (1999-2000)

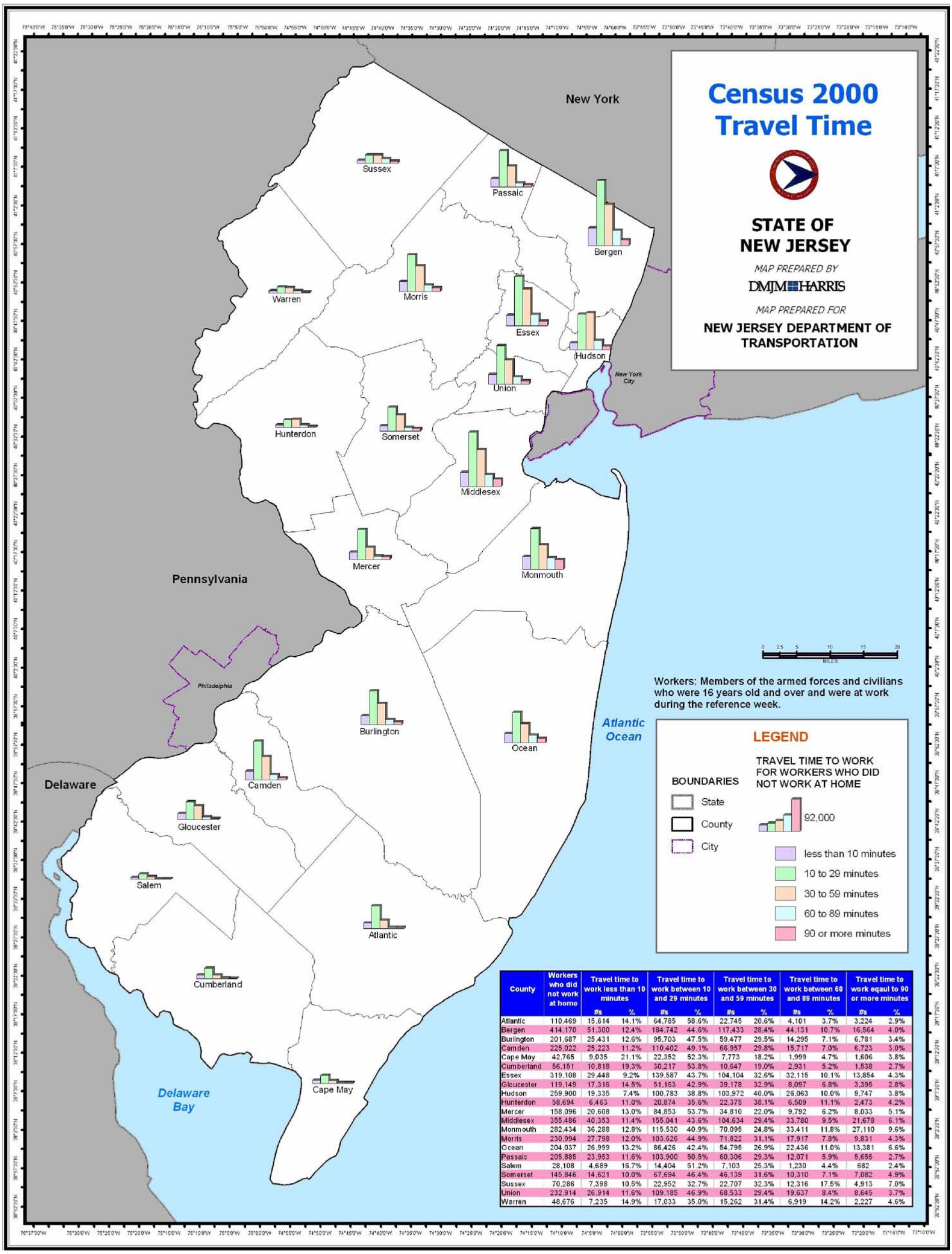
	1990 New Jersey		2000 New Jersey		Change, 1990 to 2000 New Jersey		US
Travel Time	Number	Percentage	Number	Percentage	Number	Percent Point*	Percent Point*
Workers who did not work at home	3,732,210	-	3,769,877	-	**37,667**	**-**	**-**
Less than 10 minutes	514,467	13.8	446,839	11.9	**-67,628**	**-1.9**	**-2.0**
10 to 29 minutes	1,847,962	49.5	1,701,252	45.1	**-146,710**	**-4.4**	**-2.2**
30 to 59 minutes	1,010,715	27.1	1,110,867	29.5	**100,152**	**2.4**	**2.1**
60 to 89 minutes	284,388	7.6	335,777	8.9	**51,389**	**1.3**	**0.7**
90 or more minutes	74,678	2.0	175,142	4.6	**100,464**	**2.6**	**1.2**
Average travel time to work (minutes)	25.3	-	30.0	-	**4.7**	**-**	**-**

***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

Figure 5-10 shows that more than 80% of workers in nineteen of the 21 counties traveled less than one hour to reach their workplaces. In Atlantic, Cape May and Cumberland counties, more than 70% of the workers traveled less than half an hour to work. About 21% of workers in Monmouth County and 25% of workers in Sussex County traveled more than an hour to work. This is much higher than the New Jersey average of 13.5%. A significantly higher percentage of workers (17.5%) in Sussex County also traveled between 60 and 90 minutes to reach work.

In terms of number of workers, Bergen County had the largest number of workers in all travel time categories except travel time greater than 90 minutes. In this category, Monmouth County had the largest number of workers (27,000), followed by Middlesex County with 21,000 workers. Most of these workers either headed towards New York City or the New York metro area in northern New Jersey every day.

Figure 5-10: Workers by Travel Time to Work by County (2000)

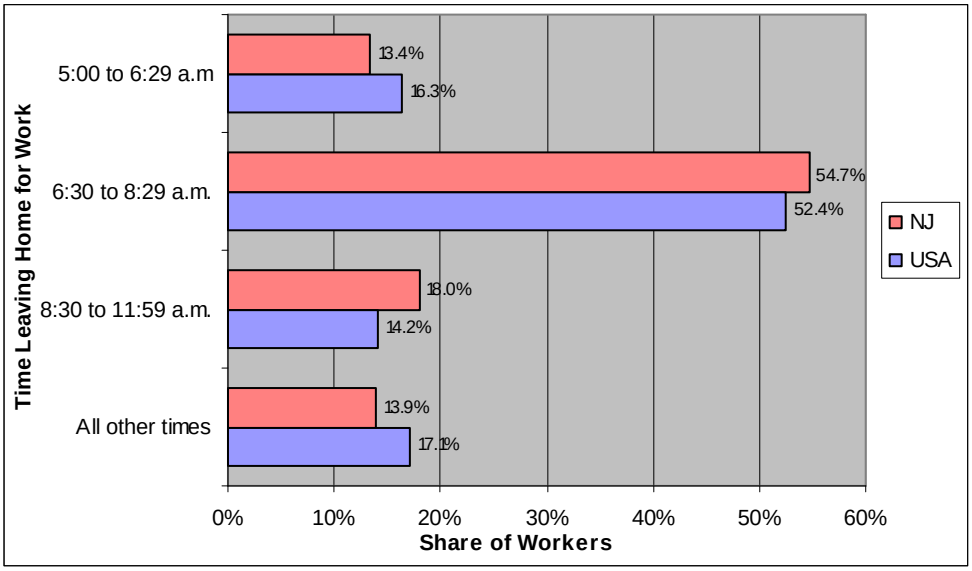


County	Workers who did not work at home	Travel time to work less than 10 minutes		Travel time to work between 10 and 29 minutes		Travel time to work between 30 and 59 minutes		Travel time to work between 60 and 89 minutes		Travel time to work eqaul to 90 or more minutes	
		#s	%	#s	%	#s	%	#s	%	#s	%
Atlantic	110,469	15,614	14.1%	64,785	58.6%	22,745	20.6%	4,101	3.7%	3,224	2.9%
Bergen	414,170	51,300	12.4%	184,742	44.6%	117,433	28.4%	44,131	10.7%	16,564	4.0%
Burlington	201,687	25,431	12.6%	95,703	47.5%	59,477	29.5%	14,295	7.1%	6,781	3.4%
Camden	225,022	25,223	11.2%	110,402	49.1%	66,957	29.8%	15,717	7.0%	6,723	3.0%
Cape May	42,765	9,035	21.1%	22,352	52.3%	7,773	18.2%	1,999	4.7%	1,606	3.8%
Cumberland	56,151	10,818	19.3%	30,217	53.8%	10,647	19.0%	2,931	5.2%	1,538	2.7%
Essex	319,108	29,448	9.2%	139,587	43.7%	104,104	32.6%	32,115	10.1%	13,854	4.3%
Gloucester	119,149	17,316	14.5%	51,163	42.9%	39,178	32.9%	8,097	6.8%	3,395	2.8%
Hudson	259,900	19,335	7.4%	100,783	38.8%	103,972	40.0%	26,063	10.0%	9,747	3.8%
Hunterdon	58,694	6,463	11.0%	20,874	35.6%	22,375	38.1%	6,509	11.1%	2,473	4.2%
Mercer	158,096	20,608	13.0%	84,853	53.7%	34,810	22.0%	9,792	6.2%	8,033	5.1%
Middlesex	355,486	40,353	11.4%	155,041	43.6%	104,634	29.4%	33,780	9.5%	21,678	6.1%
Monmouth	282,434	36,288	12.8%	115,530	40.9%	70,095	24.8%	33,411	11.8%	27,110	9.6%
Morris	230,994	27,798	12.0%	103,626	44.9%	71,822	31.1%	17,917	7.8%	9,831	4.3%
Ocean	204,037	26,999	13.2%	86,426	42.4%	54,795	26.9%	22,436	11.0%	13,381	6.6%
Passaic	205,885	23,953	11.6%	103,900	50.5%	60,306	29.3%	12,071	5.9%	5,655	2.7%
Salem	28,108	4,689	16.7%	14,404	51.2%	7,103	25.3%	1,230	4.4%	682	2.4%
Somerset	145,846	14,621	10.0%	67,694	46.4%	46,139	31.6%	10,310	7.1%	7,082	4.9%
Sussex	70,286	7,398	10.5%	22,952	32.7%	22,707	32.3%	12,316	17.5%	4,913	7.0%
Union	232,914	26,914	11.6%	109,185	46.9%	68,533	29.4%	19,637	8.4%	8,645	3.7%
Warren	48,676	7,235	14.9%	17,033	35.0%	15,262	31.4%	6,919	14.2%	2,227	4.6%

5.5 Time Leaving for Work

In 2000, about 55% of workers departed from home to go to work between 6:30 a.m. and 8:29 a.m. This is slightly higher than the national trend of about 52% for the same time period, as shown in Figure 5-11. The peak hour to leave home for work in New Jersey as well as the rest of the country was 7:00 a.m. to 7:59 a.m. The difference in the share of workers leaving home between 6:30 a.m. and 8:29 a.m. in New Jersey and the rest of the country can mainly be attributed to the greater spread of the peak hour in New Jersey, with 14.4% of workers leaving home between 8:00 a.m. and 8:29 a.m., compared to 10.8% nationally.

Figure 5-11: Workers by Time They Leave Home for Work in NJ and US (2000)



As shown in Table 5-7, the share of workers in New Jersey departing from home during the peak period of 6:30 a.m. to 8:29 a.m. has fallen over the decade from about 58% (2.15 million) in 1990 to about 55% (2.06 million) in 2000. In contrast, Table 5-7 also shows that the share of workers who left home between 5:00 a.m. and 6:29 a.m. increased from 11.5% in 1990 to 13.4% in 2000. This was mainly because more and more workers were commuting longer distances and thus needed to leave early to beat the peak hour rush and reach their workplaces in time. One effect is that the peak hour itself has spread.

Table 5-7: Workers by Time They Leave Home for Work in New Jersey (1990-2000)

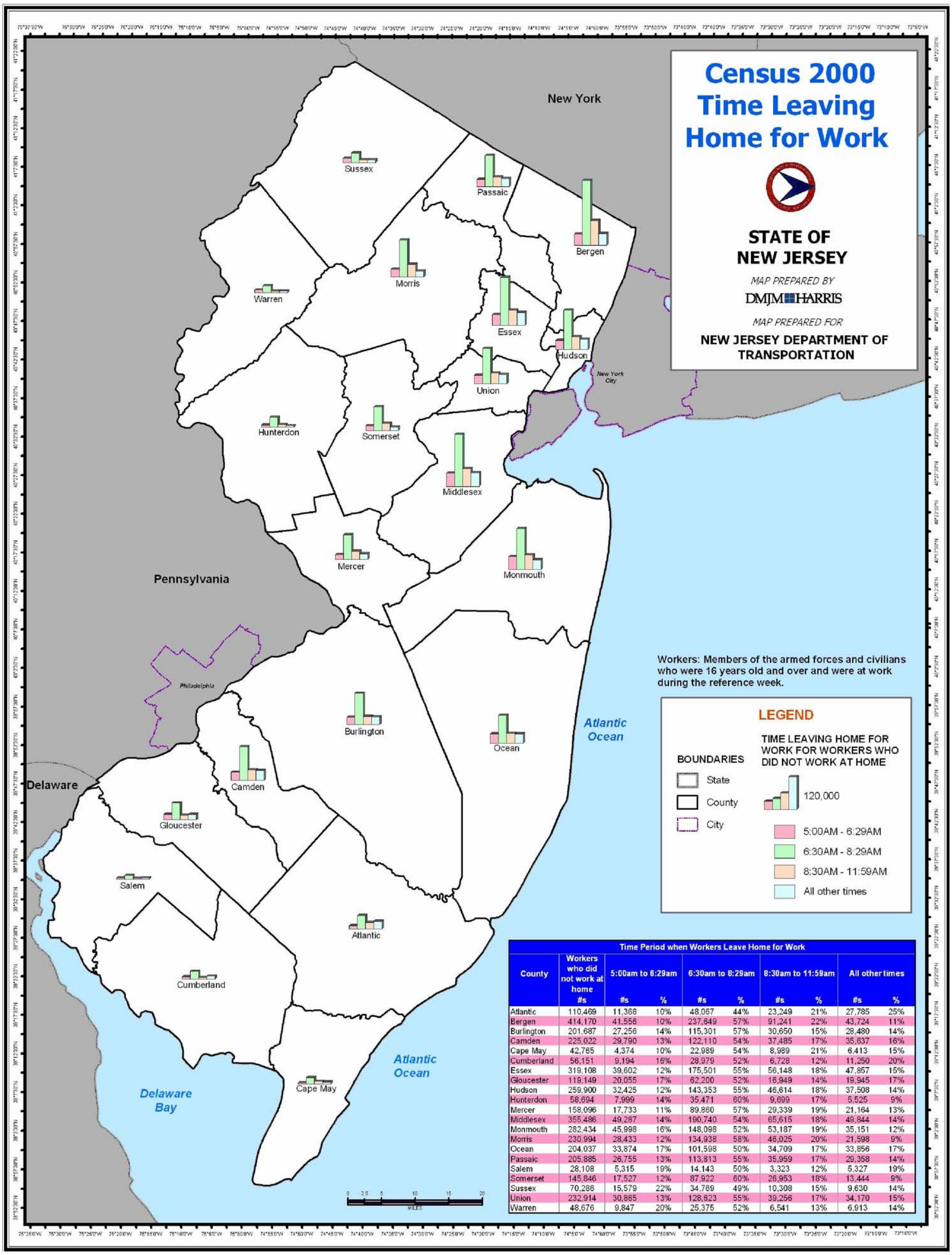
	1990 New Jersey		2000 New Jersey		Change, 1990 to 2000 New Jersey		US
Time Leaving Home	Number	Percent	Number	Percent	Number	Percent Point*	Percent Point*
Workers who did not work at home	3,732,210	100.0	3,769,877	100.0	**37,667**	**-**	**-**
5:00 to 6:29 a.m.	429,197	11.5	504,832	13.4	**75,635**	**1.9**	**1.1**
6:30 to 8:29 a.m.	2,153,227	57.7	2,061,499	54.7	**-91,728**	**-3.0**	**-2.4**
8:30 to 11:59 a.m.	647,289	17.3	678,967	18.0	**31,678**	**0.7**	**0.6**
All other times	502,497	13.5	524,579	13.9	**22,082**	**0.5**	**0.7**

***** Change in share between 1990 and 2000 (Percent Point =2000 Percentage – 1990 Percentage)

Figure 5-12 shows that approximately half the workers in all the counties in New Jersey left home for work between 6:30 and 8:29 a.m. Also, the morning peak hour for most of the counties was between 7:00 a.m. and 7:59 a.m.

In Sussex and Warren counties, about 20% of workers left home between 5:00 and 6:29 a.m., a share significantly higher than the state average of 13.4%. This can be mainly attributed to the northwestern location of these counties and the flow of its work force to New York City. In Atlantic County, the share of workers leaving home at all other times after noon was significantly high owing to the large number of casino workers.

Figure 5-12: Workers by Time They Leave Home for Work by County (2000)



Time Period when Workers Leave Home for Work									
County	Workers who did not work at home	5:00am to 6:29am		6:30am to 8:29am		8:30am to 11:59am		All other times	
	#s	#s	%	#s	%	#s	%	#s	%
Atlantic	110,469	11,368	10%	48,067	44%	23,249	21%	27,785	25%
Bergen	414,170	41,556	10%	237,649	57%	91,241	22%	43,724	11%
Burlington	201,687	27,256	14%	115,301	57%	30,650	15%	28,480	14%
Camden	225,022	29,790	13%	122,110	54%	37,485	17%	35,637	16%
Cape May	42,765	4,374	10%	22,989	54%	8,989	21%	6,413	15%
Cumberland	56,151	9,194	16%	28,979	52%	6,728	12%	11,250	20%
Essex	319,108	39,602	12%	175,501	55%	56,148	18%	47,857	15%
Gloucester	119,149	20,055	17%	62,200	52%	16,949	14%	19,945	17%
Hudson	259,900	32,425	12%	143,353	55%	46,614	18%	37,508	14%
Hunterdon	58,694	7,999	14%	35,471	60%	9,699	17%	5,525	9%
Mercer	158,096	17,733	11%	89,860	57%	29,339	19%	21,164	13%
Middlesex	355,486	49,287	14%	190,740	54%	65,615	18%	49,844	14%
Monmouth	282,434	45,998	16%	148,098	52%	53,187	19%	35,151	12%
Morris	230,994	28,433	12%	134,938	58%	46,025	20%	21,598	9%
Ocean	204,037	33,874	17%	101,598	50%	34,709	17%	33,856	17%
Passaic	205,885	26,755	13%	113,813	55%	35,959	17%	29,358	14%
Salem	28,108	5,315	19%	14,143	50%	3,323	12%	5,327	19%
Somerset	145,846	17,527	12%	87,922	60%	26,953	18%	13,444	9%
Sussex	70,286	15,579	22%	34,769	49%	10,308	15%	9,630	14%
Union	232,914	30,865	13%	128,823	55%	39,256	17%	34,170	15%
Warren	48,676	9,847	20%	25,375	52%	6,541	13%	6,913	14%

6. Projected New Jersey Population and Employment

The three metropolitan planning organizations (MPO) in New Jersey – NJTPA, DVRPC and SJTPO, geographically cover all the 21 counties in the state. These MPOs provide demographic projections for their regions that are based on several factors like past observed trends, census projections, review of development patterns as well as available development / redevelopment potential etc.

The MPO population and employment projections by county for 2030 are shown in tables 6-1 and 6-2 respectively. These tables also compare observed growth (1990-2000) with the projected growth (2000-2030).

Figures 6-1 and 6-2 graphically show the projected change in county population and employment respectively.

Highlights of the demographic projections are as follows:

- **Highest population growth projection by 2030** –
  - Ocean (228,384),
  - Middlesex (208,738)
  - Bergen (111,882)

- **Highest percentile population growth projections by 2030** –
  - Ocean (44.7%),
  - Atlantic (34.8%)
  - Warren (30.2%)

- **Highest employment growth projection by 2030** –
  - Middlesex (147,700),
  - Hudson (104,400)
  - Monmouth (90,000)

- **Highest percentile employment growth projections by 2030** –
  - Cumberland (53.9%),
  - Hunterdon (53.0%)
  - Sussex (53.0%)

These demographic projections clearly indicate the continuation of westward and southward growth propagation trends observed in the state during the past decade (1990-2000).

Table 6-1: Observed and Projected Growth in Population by County (1990-2030)

County	1990 Census Population	2000 Census Population	2030 Projected Population	Observed Population Growth 1990-2000		Projected Population Growth 2000-2030	
				Numerical Change	Percent Change	Numerical Change	Percent Change
Atlantic	224,327	252,552	340,388	28,225	12.6	87,836	34.8
Bergen	825,380	884,118	996,000	58,738	7.1	111,882	12.7
Burlington	395,066	423,394	532,850	28,328	7.2	109,456	25.9
Camden	502,824	508,932	515,425	6,108	1.2	6,493	1.3
Cape May	95,089	102,326	127,703	7,237	7.6	25,377	24.8
Cumberland	138,053	146,438	189,414	8,385	6.1	42,976	29.3
Essex	778,206	793,633	885,500	15,427	2.0	91,867	11.6
Gloucester	230,082	254,673	337,090	24,591	10.7	82,417	32.4
Hudson	553,099	608,975	760,700	55,876	10.1	151,725	24.9
Hunterdon	107,776	121,989	146,500	14,213	13.2	24,511	20.1
Mercer	325,824	350,761	398,389	24,937	7.7	47,628	13.6
Middlesex	671,780	750,162	958,900	78,382	11.7	208,738	27.8
Monmouth	553,124	615,301	713,000	62,177	11.2	97,699	15.9
Morris	421,353	470,212	522,200	48,859	11.6	51,988	11.1
Ocean	433,203	510,916	739,300	77,713	17.9	228,384	44.7
Passaic	453,060	489,049	594,200	35,989	7.9	105,151	21.5
Salem	65,294	64,285	68,179	**-1,009**	**-1.5**	3,894	6.1
Somerset	240,279	297,490	367,100	57,211	23.8	69,610	23.4
Sussex	130,943	144,166	190,600	13,223	10.1	46,434	32.2
Union	493,819	522,541	612,100	28,722	5.8	89,559	17.1
Warren	91,607	102,437	133,400	10,830	11.8	30,963	30.2
New Jersey	**7,730,188**	**8,414,350**	**10,128,938**	**684,162**	**8.9**	**1,714,588**	**20.4**

Source: 1990 and 2000 Census population data; NJTPA, DVRPC and SJTPO MPO population projections

Figure 6-1: Population Projections by County (2000-2030)

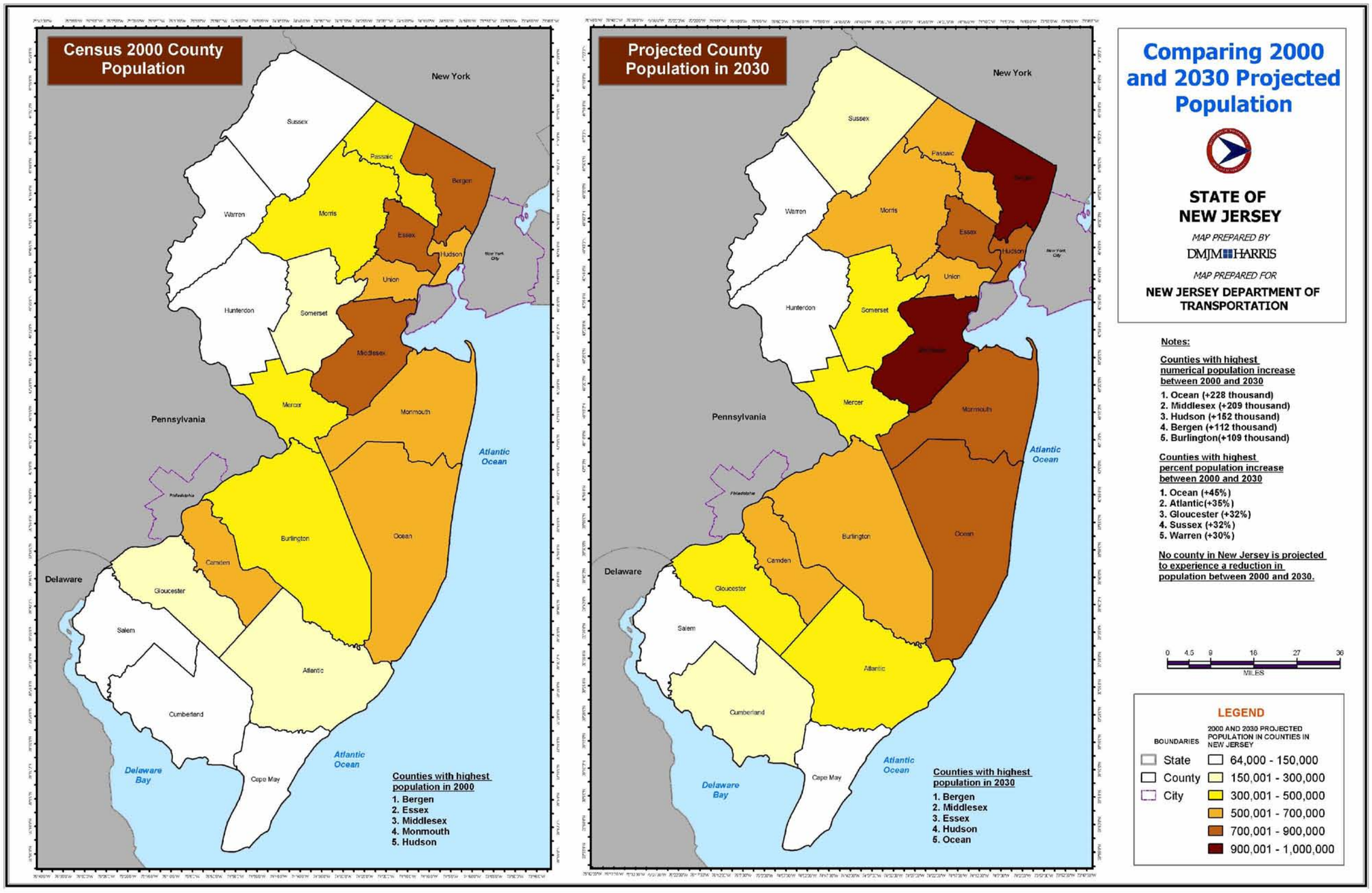
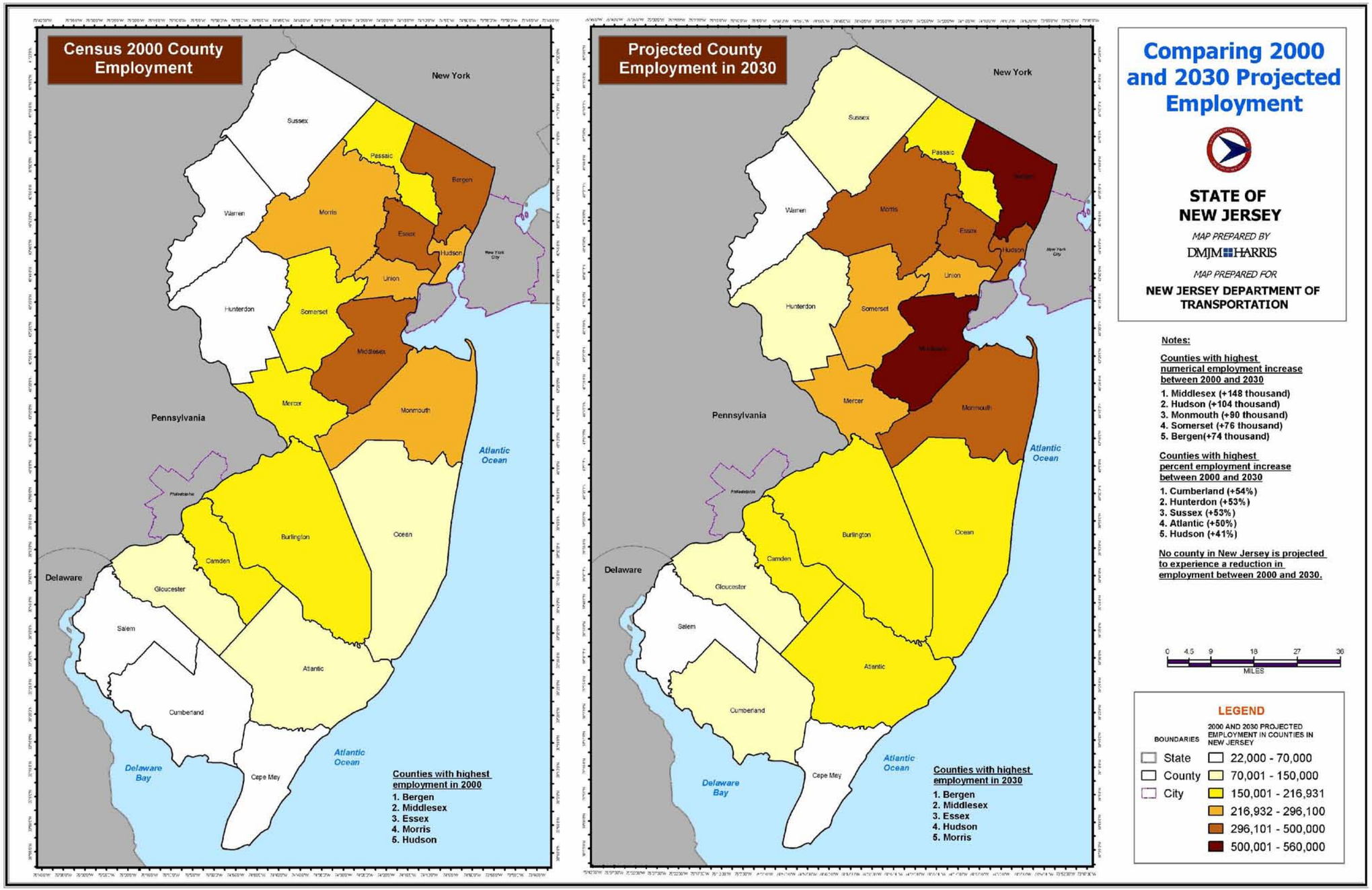


Table 6-2: Observed and Projected Growth in Employment by County (1990-2030)

County	1990 Employment	2000 Employment	2030 Projected Employment	Observed Employment Growth 1990-2000		Projected Employment Growth 2000-2030	
				Numerical Change	Percent Change	Numerical Change	Percent Change
Atlantic	138,363	125,739	188,350	**-12,624**	**-9.1**	62,611	49.8
Bergen	458,795	480,600	554,300	21,805	4.8	73,700	15.3
Burlington	191,537	202,535	249,653	10,998	5.7	47,118	23.3
Camden	228,161	216,931	235,453	**-11,230**	**-4.9**	18,522	8.5
Cape May	39,145	40,012	51,471	867	2.2	11,459	28.6
Cumberland	59,529	60,400	92,933	871	1.5	32,533	53.9
Essex	384,306	396,200	440,500	11,894	3.1	44,300	11.2
Gloucester	85,951	99,467	135,627	13,516	15.7	36,160	36.4
Hudson	248,587	257,200	361,600	8,613	3.5	104,400	40.6
Hunterdon	37,966	56,800	86,900	18,834	49.6	30,100	53.0
Mercer	220,373	209,758	258,818	**-10,615**	**-4.8**	49,060	23.4
Middlesex	364,823	406,200	553,900	41,377	11.3	147,700	36.4
Monmouth	221,217	252,600	342,600	31,383	14.2	90,000	35.6
Morris	256,718	296,100	358,700	39,382	15.3	62,600	21.1
Ocean	116,468	138,900	180,500	22,432	19.3	41,600	29.9
Passaic	196,101	191,500	226,000	**-4,601**	**-2.3**	34,500	18.0
Salem	23,802	22,600	25,335	**-1,202**	**-5.0**	2,735	12.1
Somerset	144,916	203,100	278,800	58,184	40.2	75,700	37.3
Sussex	29,953	40,200	61,500	10,247	34.2	21,300	53.0
Union	266,633	251,600	288,400	**-15,033**	**-5.6**	36,800	14.6
Warren	33,100	35,700	45,400	2,600	7.9	9,700	27.2
New Jersey	**3,746,444**	**3,984,142**	**5,016,740**	**237,698**	**6.3**	**1,032,598**	**25.9**

Source: NJTPA, DVRPC and SJTPO MPO Employment datasets

Figure 6-2: Employment Projections by County (2000-2030)



7. Demographic Profiles

This section provides a quick summary of demographic attribute change at the US, state and county levels between 1990 and 2000.

Table 7-1: Demographic Attributes Change Comparison (1990-2000), New Jersey and US

Demographic Attribute	*NJ 1990*	*NJ 2000*	*Change (1990-2000)*	*Percent Change (1990-2000)*	*US 1990*	*US 2000*	*Change (1990-2000)*	*Percent Change (1990-2000)*
Population	7,730,188	8,414,350	**684,162**	**8.9**	248,709,873	281,421,906	**32,712,033**	**13.2**
Population Density (Persons Per Square Mile)	1,042	1,134	**92**	**8.8**	71	80	**9**	**13.2**
Hispanic or Latino Population	739,861	1,117,191	**377,330**	**51.0**	22,354,059	35,305,818	**12,951,759**	**57.9**
Immigrant Population	861,911	1,476,327	**614,416**	**71.3**	17,929,613	31,107,889	**13,178,276**	**73.5**
Minor Population (< 18 Years)	1,799,462	2,087,558	**288,096**	**16.0**	63,604,432	72,293,812	**8,689,380**	**13.7**
Working Age Population (Between 18 - 65 years)	4,898,701	5,213,656	**314,955**	**6.4**	153,863,610	174,136,341	**20,272,731**	**13.2**
Senior Population (> 65 Years)	1,032,025	1,113,136	**81,111**	**7.9**	31,241,831	34,991,753	**3,749,922**	**12.0**
Total Number of Households	2,794,711	3,064,645	**269,934**	**9.7**	91,947,410	105,480,101	**13,532,691**	**14.7**
Households with No Vehicles	360,144	388,950	**28,806**	**8.0**	10,602,297	10,861,067	**258,770**	**2.4**
Households below Poverty Level*	214,996	254,121	**39,125**	**18.2**	11,697,812	12,404,237	**706,425**	**6.0**
Households with Income > $150,000*	82,309	263,329	**181,020**	**219.9**	1,442,031	4,824,713	**3,382,682**	**234.6**
Employed Residents in Civilian Jobs	3,746,444	3,984,142	**237,698**	**6.3**	115,681,202	129,721,512	**14,040,310**	**12.1**
Unemployed Residents	235,975	243,116	**7,141**	**3.0**	7,792,248	7,947,286	**155,038**	**2.0**
Labor Force working within the County of Residence	2,235,202	2,126,179	**-109,023**	**-4.9**	87,587,677	94,042,863	**6,455,186**	**7.4**
Journey-To-Work – Drive Alone	2,731,027	2,828,303	**97,276**	**3.6**	84,215,298	97,102,050	**12,886,752**	**15.3**
Journey-To-Work – Carpool	471,943	412,299	**-59,644**	**-12.6**	15,377,634	15,634,051	**256,417**	**1.7**
Journey-To-Work – Public Transportation	336,708	371,514	**34,806**	**10.3**	6,069,589	6,067,703	**-1,886**	**0.0**
Journey-To-Work – All Other Modes (Including Work at Home)	273,006	264,317	**-8,689**	**-3.2**	9,407,753	9,475,424	**67,671**	**0.7**
Average Travel Time to Work (Minutes)	25.3	30	**4.7**	**18.6**	21.7	24.7	**3**	**13.8**

* Data comparison between (1989-1999)
Source: 1990 and 2000 Census, MPO demographic data

Table 7-2: Demographic Attributes Percentile Change by County (1990-2000)

County	Population	Households (HH)	HH with income below poverty level*	Employment	Workers	Journey to Work (JTW) Within County	JTW to Other Counties in NJ	JTW to New York City	JTW to Philadelphia	JTW to All Other Locations
Atlantic	13%	11%	14%	-9%	-1%	-3%	1%	1%	6%	19%
Bergen	7%	7%	24%	5%	0%	-4%	16%	-10%	-57%	-14%
Burlington	7%	13%	27%	6%	5%	0%	12%	35%	4%	4%
Camden	1%	4%	9%	-5%	-3%	-5%	8%	28%	-17%	-8%
Cape May	8%	11%	9%	2%	8%	9%	5%	48%	2%	28%
Cumberland	6%	4%	9%	2%	-1%	-8%	11%	44%	57%	10%
Essex	2%	2%	12%	3%	-4%	-16%	2%	14%	-5%	37%
Gloucester	11%	15%	16%	16%	13%	10%	15%	136%	3%	24%
Hudson	10%	11%	17%	4%	5%	-14%	16%	16%	14%	29%
Hunterdon	13%	15%	9%	50%	9%	1%	13%	19%	5%	15%
Mercer	8%	8%	28%	-5%	3%	-10%	26%	23%	1%	-4%
Middlesex	12%	11%	27%	11%	8%	-5%	17%	14%	32%	32%
Monmouth	11%	14%	31%	14%	9%	-1%	21%	23%	86%	9%
Morris	12%	14%	45%	15%	9%	-0.2%	13%	24%	8%	45%
Ocean	18%	19%	23%	19%	17%	14%	20%	24%	-6%	7%
Passaic	8%	5%	18%	-2%	-3%	-17%	7%	5%	11%	9%
Salem	-2%	2%	-14%	-5%	-1%	-19%	18%	-67%	22%	8%
Somerset	24%	23%	52%	40%	16%	8%	18%	34%	25%	30%
Sussex	10%	14%	36%	34%	12%	7%	15%	7%	-17%	14%
Union	6%	3%	17%	-6%	-1%	-11%	4%	14%	23%	11%
Warren	12%	14%	8%	8%	14%	5%	21%	57%	74%	11%

* Data comparison between (1989-1999)
Source: 1990 and 2000 Census