



Chapter 5 Transportation Setting

This chapter contains a series of demographic and other analyses that provide information that is consistent with the findings contained in prior chapters, highlighting the regional perspective. The information presented here includes data from the 2000 census and other information sources developed and assembled by the NJTPA with references to the sources of information contained in each table and figure. Information is presented on populations and cohorts with special transportation needs, including senior citizens, persons with disabilities, and low-income persons. Journey to work information is also discussed, including both the mode of transportation and the travel patterns, such as intracounty and intercounty commuting.

A. Service Area Description

The study area is the 13-county NJTPA region: Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, Union, and Warren counties. The region's population was about 6.3 million in the 2000 U.S. Census.

B. Municipalities

The NJTPA region includes 384 municipalities in the region. The northeastern part of the region is a densely populated, urban core area of older municipalities. The City of Newark, the largest city in both the region and the state, is located in the center of the core area. Other densely populated older municipalities in this portion include Elizabeth, Jersey City, and Paterson. These four cities were considered large regional centers for the purposes of this plan, along with New Brunswick, Asbury Park, Phillipsburg and Newton.

The southeastern and western parts of the region are characterized by lower densities and dispersed development patterns. A number of areas in the outlying counties are more rural in nature.

C. Demographic Indicators

The demand for human service transportation is more dependent on such variables as program eligibility rules and county policies and priorities than the demographic factors influencing demand for typical fixed route service. Many county staffers and focus group participants cited



the availability of NJ TRANSIT service as a significant source of travel options, including fixed-route bus and rail service and the Access Link complementary paratransit program. Demographic factors remain significant, however, so the study examined the following factors such as population density, age distribution, income, and automobile availability.

Each of these populations is examined in terms of the percentage of the total population made up of the target population. Each of the characteristics listed above are analyzed using data from the 2000 U.S. Census and other NJTPA data sources. The exhibits present information on the region summarized by county. The ranges of values are shown quintiles for each variable presented.

1. Population

Table 5-1 shows population in the region by county. The total population of the 13-county region was approximately 6.3 million in 2000. Over one-third of the region's population resides in Bergen, Essex, and Hudson counties. These counties in the northeastern part of the region represent the primary urban setting of the study area.

Newark (Essex County) is the largest municipality in the region, with a population of 273,546. Other large municipalities include Jersey City (Hudson County), with a population of 240,055; Paterson (Passaic County), with a population of 149,222; and Elizabeth (Union County), with a population of 120,568. Table 5-1 also shows the projected population growth by county for the period between 2000 and 2010. The table shows that the region's population is projected to increase to about 6.7 million people, which is an increase of about 7 percent from the 2000 population of 6.3 million.

All of the counties are expected to increase in population during the 10-year study period. The highest growth rate (percent increase in population) is expected to occur in Warren County. The largest absolute change in population is expected to occur in Middlesex County. Overall, the counties that are projected to experience the largest percent increases in population are located along the periphery of the study area, where the development pattern is predominately suburban or rural and where significant parcels of undeveloped land are available for new construction. The rate of population change is less in the more urbanized counties, where land for new development is limited.



Table 5-1: Population Projections by County

County	2000 Population		2010 Population		Population Change		Change in Percent of Region
	Persons	Percent of Region	Persons	Percent of Region	Persons	Percent Growth	
Bergen	884,118	12.6%	912,680	12.0%	28,562	3.2%	-0.6%
Essex	793,633	9.6%	810,440	9.9%	16,807	2.1%	0.3%
Hudson	608,975	1.9%	666,980	2.0%	58,005	9.5%	0.1%
Hunterdon	121,989	11.9%	133,360	12.2%	11,371	9.3%	0.3%
Middlesex	750,162	9.7%	819,730	9.8%	69,568	9.3%	0.1%
Monmouth	615,301	7.5%	657,940	7.3%	42,639	6.9%	-0.2%
Morris	470,212	8.1%	492,120	8.6%	21,908	4.7%	0.5%
Ocean	510,916	7.7%	579,480	7.6%	68,564	13.4%	-0.1%
Passaic	489,049	4.7%	513,100	4.8%	24,051	4.9%	0.1%
Somerset	297,490	2.3%	325,480	2.4%	27,990	9.4%	0.1%
Sussex	144,166	8.3%	161,920	8.1%	17,754	12.3%	-0.2%
Union	522,541	1.6%	543,390	1.8%	20,849	4.0%	0.2%
Warren	102,437	12.6%	119,410	12.0%	16,973	16.6%	-0.6%
Total	6,310,989	100%	6,736,030	100%	425,041	6.7%	

Source: NJTPA

2. Population Density

Based on the 2000 U.S. Census, the overall regional population density was 1,436 persons per square mile. Figure 5-1, on the following page, illustrates the population density in the study area by municipality from the 2000 U.S. Census.

The figure shows the municipalities with the highest population densities are concentrated in the northeastern portion of the region and include the largest cities, such as Newark, Elizabeth, and Jersey City, which also are well served by NJ TRANSIT. The population density in these municipalities is in excess of 8,000 persons per square mile. Other municipalities located outside of the northeastern core such as the Middlesex County municipalities of New Brunswick and Perth Amboy and Monmouth County communities such as Asbury Park also exhibit relatively high population densities. The areas with the lowest population densities – less than 500 persons per square mile – are primarily located along the region’s periphery. Figure 5-2, shown on the following pages, presents the projected 2010 population density.



Figure 5-1: Population Density (2000 Census)

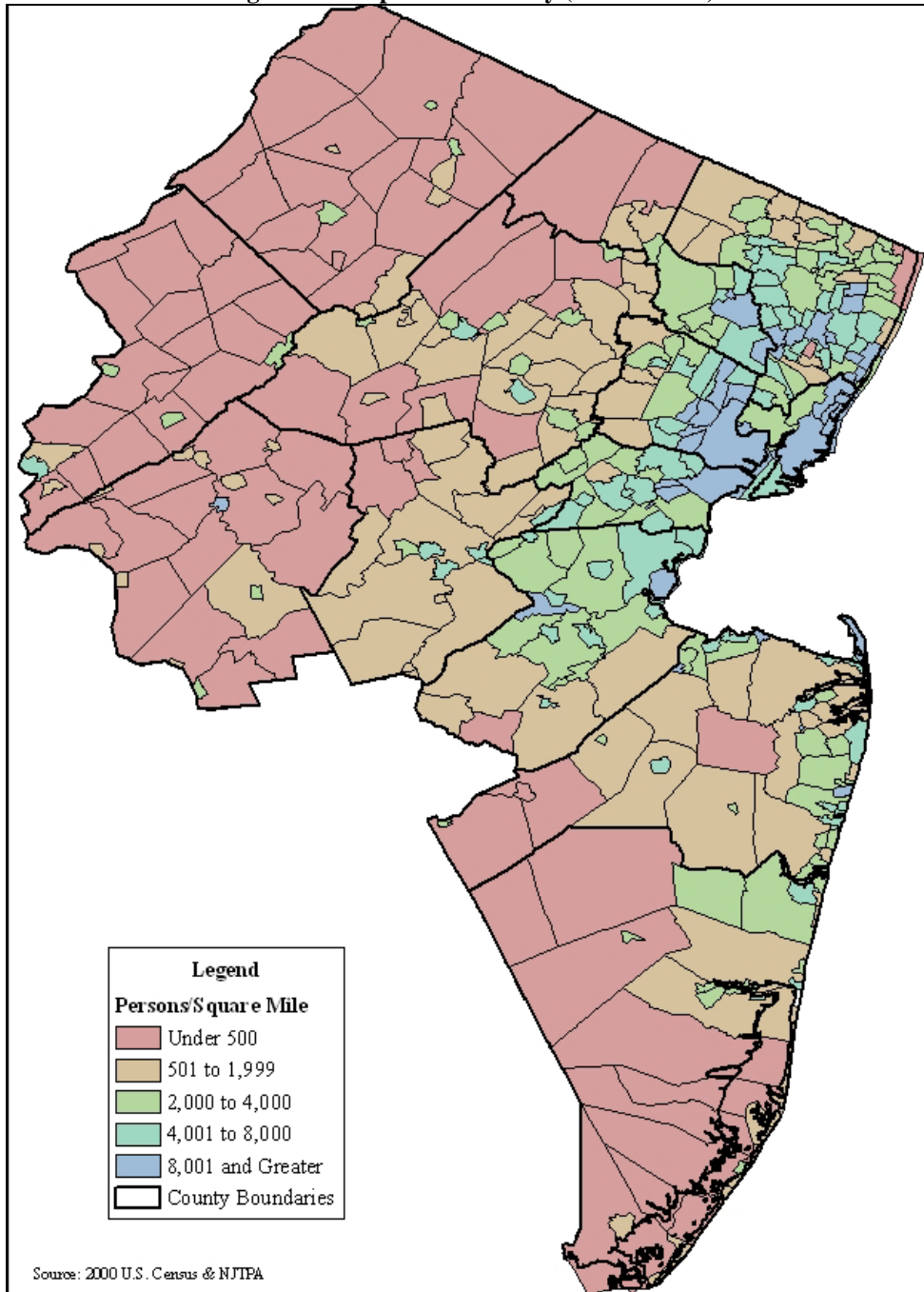
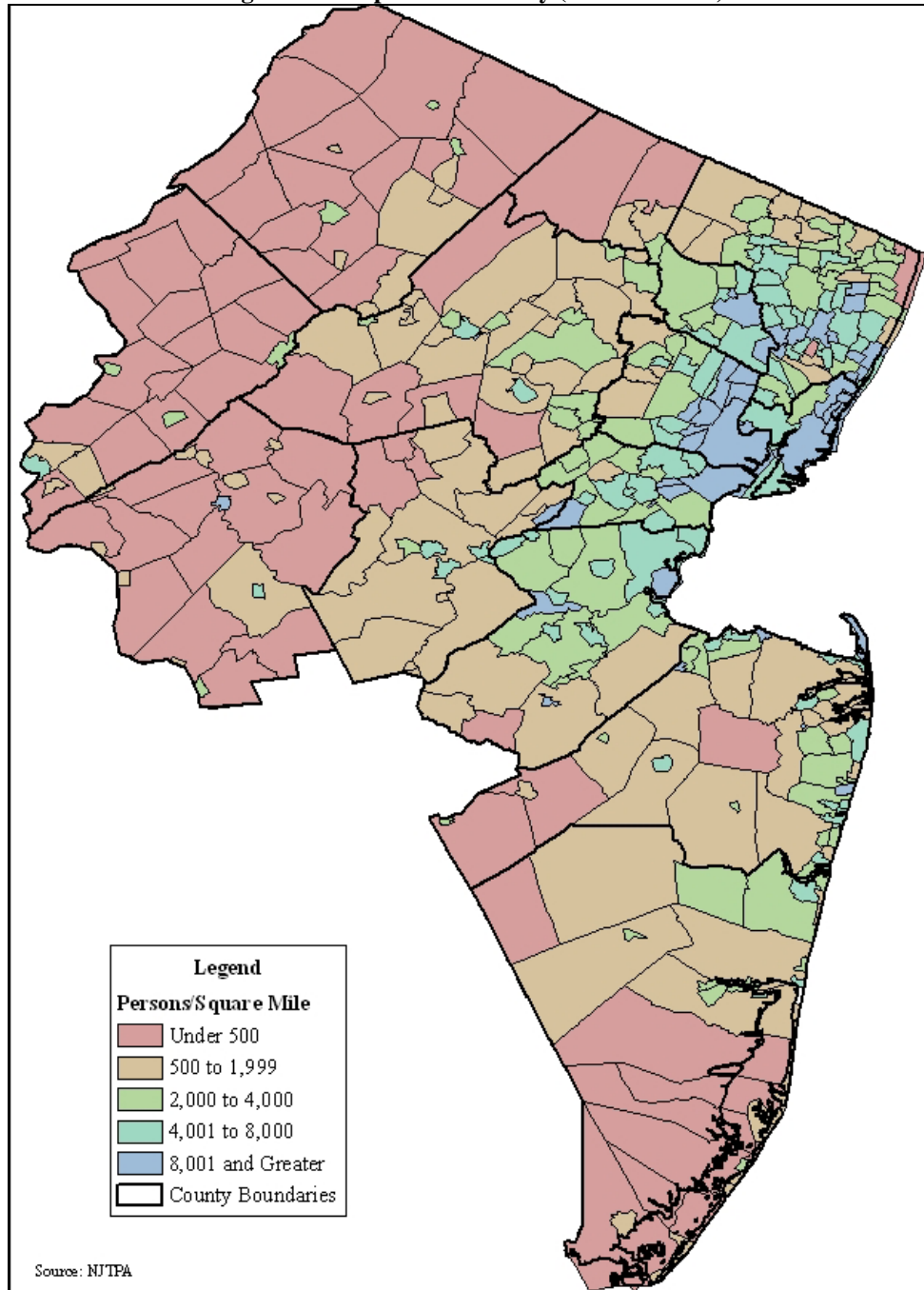




Figure 5-2: Population Density (2010 Forecast)





3. Senior Citizen Population

Senior citizens are a major user group of many county transportation programs through the use of SCADRTAP funds. As shown below in Table 5-2, there are approximately 840,000 people age 65 and over in the NJTPA region. This represents 13.3 percent of the total population and is similar to the statewide average of 13.2 percent. Figure 5-3, on the following page, shows the percent of population 65 or older. Municipalities with the highest percentages of seniors (17.1 percent and greater) are primarily located within Essex, Ocean, and Union counties.

Seniors also make up a high percentage of the population in a few coastal communities in Monmouth County. The other municipalities with high percentages of seniors are scattered throughout the region. The municipalities with low percentages of senior citizens (less than 10.2 percent) are fairly evenly distributed throughout the region; however, it is important to note that most communities in Bergen County have senior populations that are less than 10.2 percent of the total population.

Table 5-2: Demographic Indicators

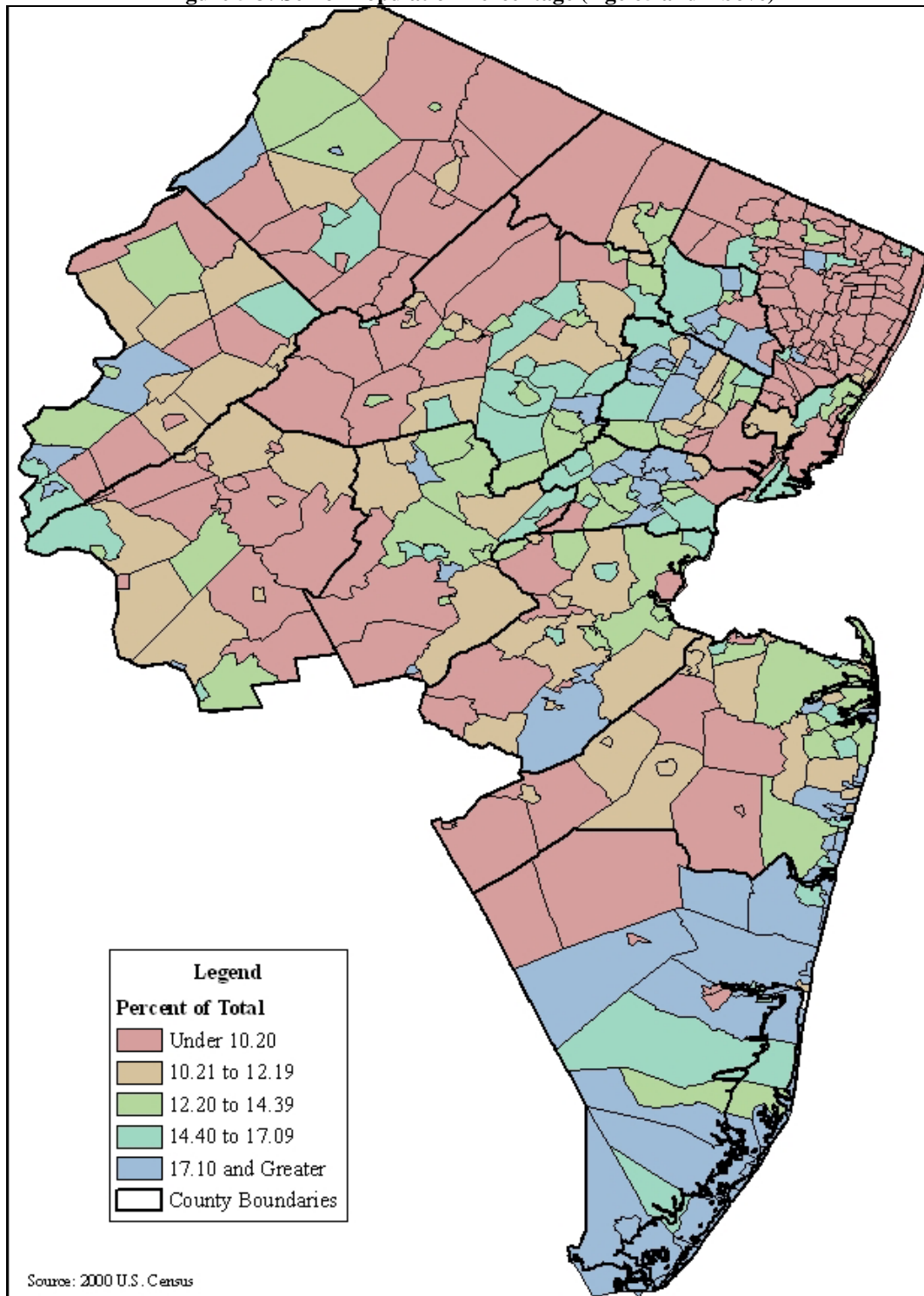
County	Senior Citizen Population (65 +)		Disabled Population*		Persons at or Below Poverty Level		Zero Car Households	
	Number	Percent	Number	Percent	Number	Percent	Number	Percent
Bergen	134,466	15.2	224,260	25.4	43,417	4.9	29,432	8.9
Essex	94,827	11.9	276,125	34.8	120,006	15.1	72,024	25.4
Hudson	69,971	11.5	237,371	39.0	93,149	15.3	80,912	35.1
Hunterdon	12,193	10.0	20,636	16.9	3,027	2.5	1,500	3.4
Middlesex	92,406	12.3	201,348	26.8	48,205	6.4	22,769	8.6
Monmouth	77,249	12.6	147,809	24.0	38,242	6.2	17,388	7.7
Morris	54,461	11.6	100,005	21.3	17,872	3.8	8,086	4.8
Ocean	113,240	22.2	167,750	32.8	34,945	6.8	16,574	8.3
Passaic	59,105	12.1	174,778	35.7	59,072	12.1	26,518	16.2
Somerset	33,385	11.2	58,701	19.7	11,061	3.7	5,468	5.0
Sussex	13,029	9.0	32,548	22.6	5,693	3.9	2,132	4.2
Union	72,126	13.8	152,469	29.2	43,319	8.3	23,653	12.7
Warren	13,181	12.9	28,225	27.6	5,492	5.4	2,855	7.4
Total	839,639	13.3	1,822,025	28.9	523,500	8.3	309,311	13.5

Source: 2000 U.S. Census

* Includes the total number of sensory, physical, mental, and self care disabilities.



Figure 5-3: Senior Population Percentage (Age 65 and Above)





4. Persons with Disabilities

Persons with disabilities are another sector of the population that typically rely on ADA paratransit or human service transportation services for public transportation trips. It should be noted that the census data considers all disabilities collectively. Thus, as shown previously in Table 5-2, there are approximately 1.8 million residents in the region living with a disability, which is about 29 percent of the total population.

Figure 5-4, on the following page, shows the persons with disabilities as a percentage of the total population. Municipalities with high concentrations of persons with disabilities (32.6 percent and greater) are concentrated in parts of Bergen, Essex, Hudson, Passaic and Union counties. In addition, there are several municipalities within Ocean County that also exhibit large percentages of residents with disabilities. Overall, this population appears to be fairly evenly distributed throughout the rest of the region.

5. Poverty Population

Another important target population for human service transportation includes people living at or below the defined poverty level. Lower income persons tend to rely more heavily on either public or human service transportation because many are unable to afford a car (or second car) or choose not to use their limited income for an automobile. As shown in Table 5-2, approximately 520,000 persons in the region live at or below the poverty level, which represents about 8 percent of the overall population. This population is potentially eligible for additional JARC funding,

Figure 5-5, on the following pages, shows the low-income population as a percent of the total population. Overall, the municipalities with the highest percentages of low income residents (7.3 percent and greater) are primarily located within Essex, Hudson and Passaic Counties. In addition, there are several coastal communities in Monmouth County where the low income population comprises at least 7.3 percent of the total population. The communities with the lowest percentages of low-income residents are located in the western and northeastern periphery of the region.



Figure 5-4: Percent Persons with Disabilities Population

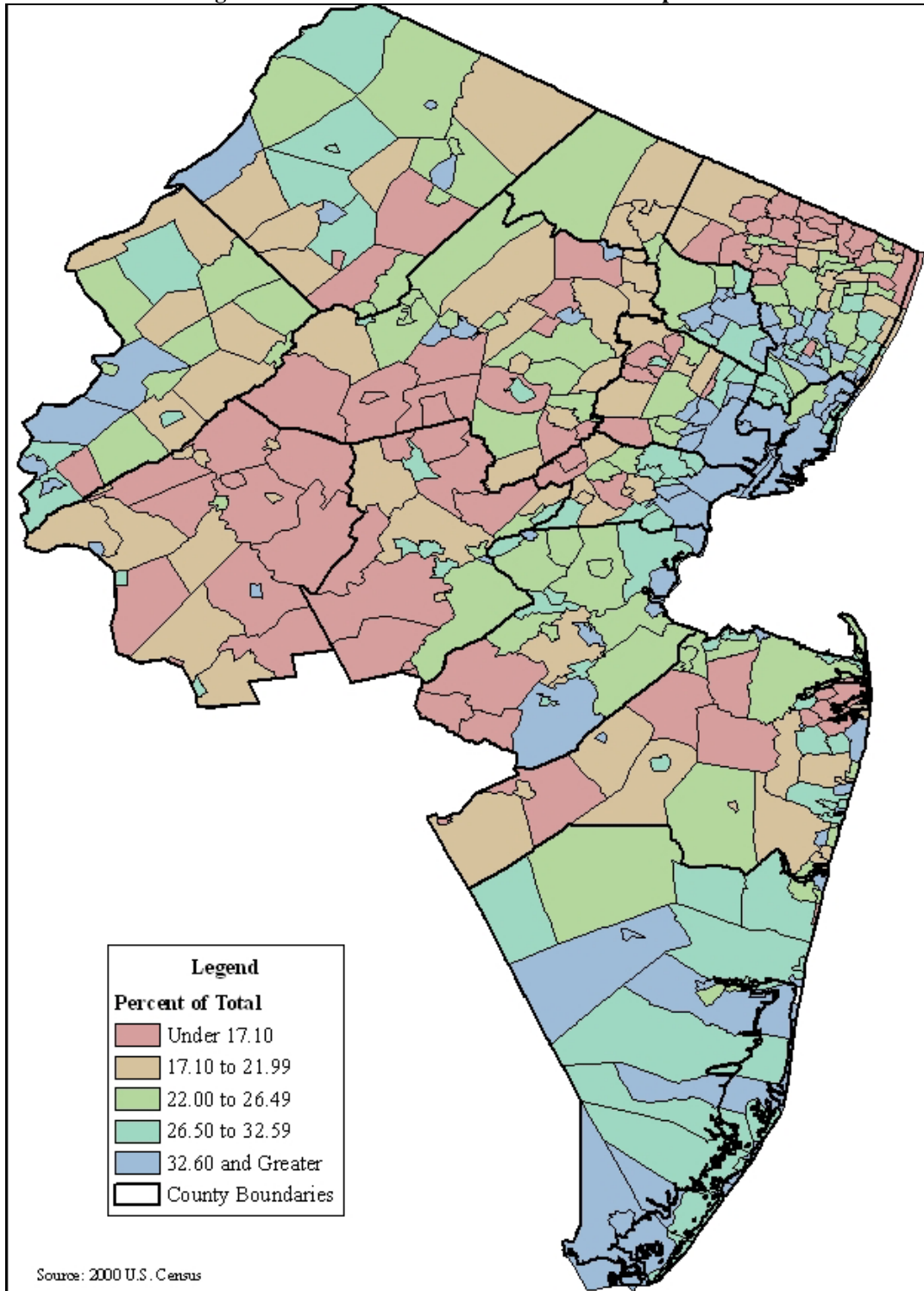
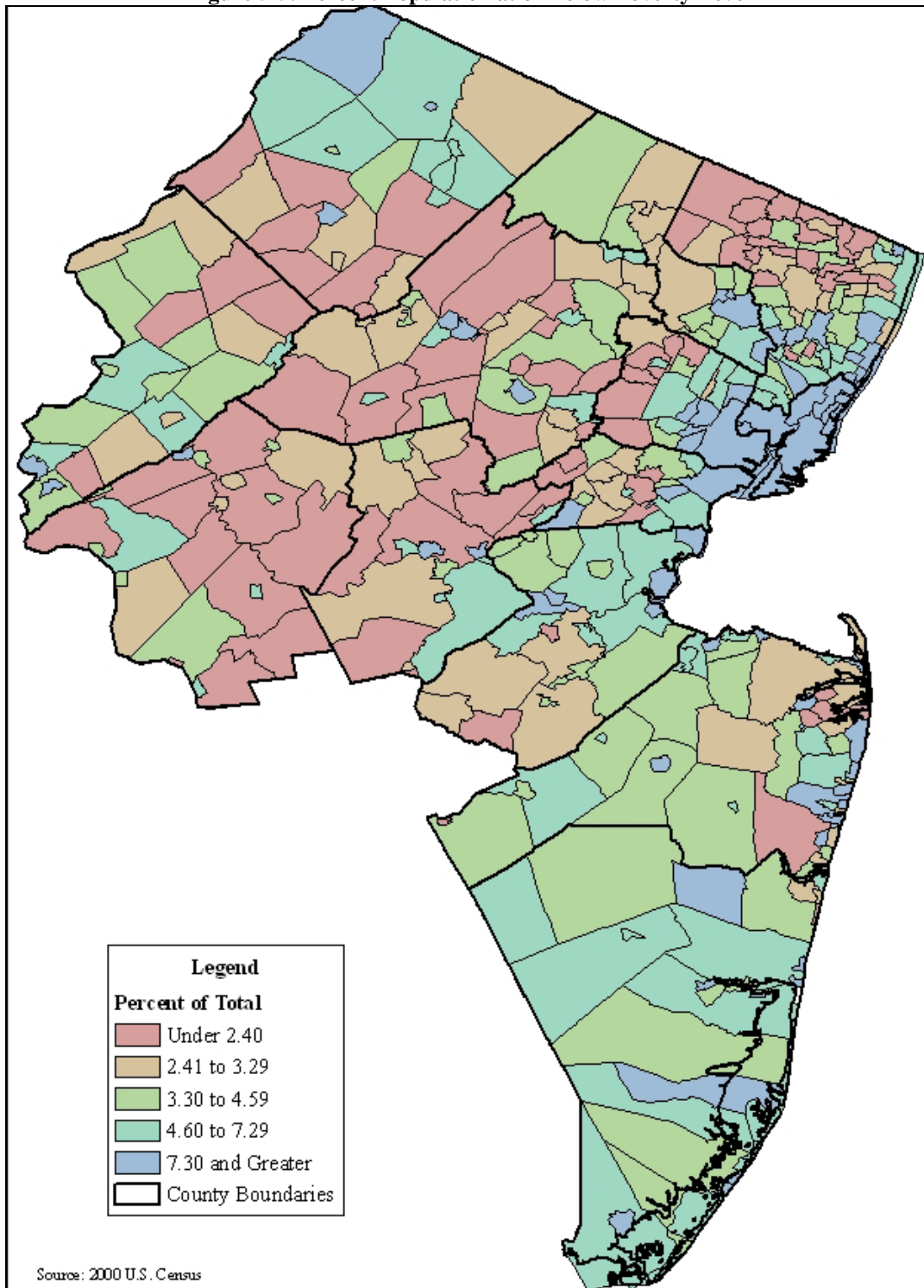




Figure 5-5: Percent Population at or Below Poverty Level





6. Zero Car Households

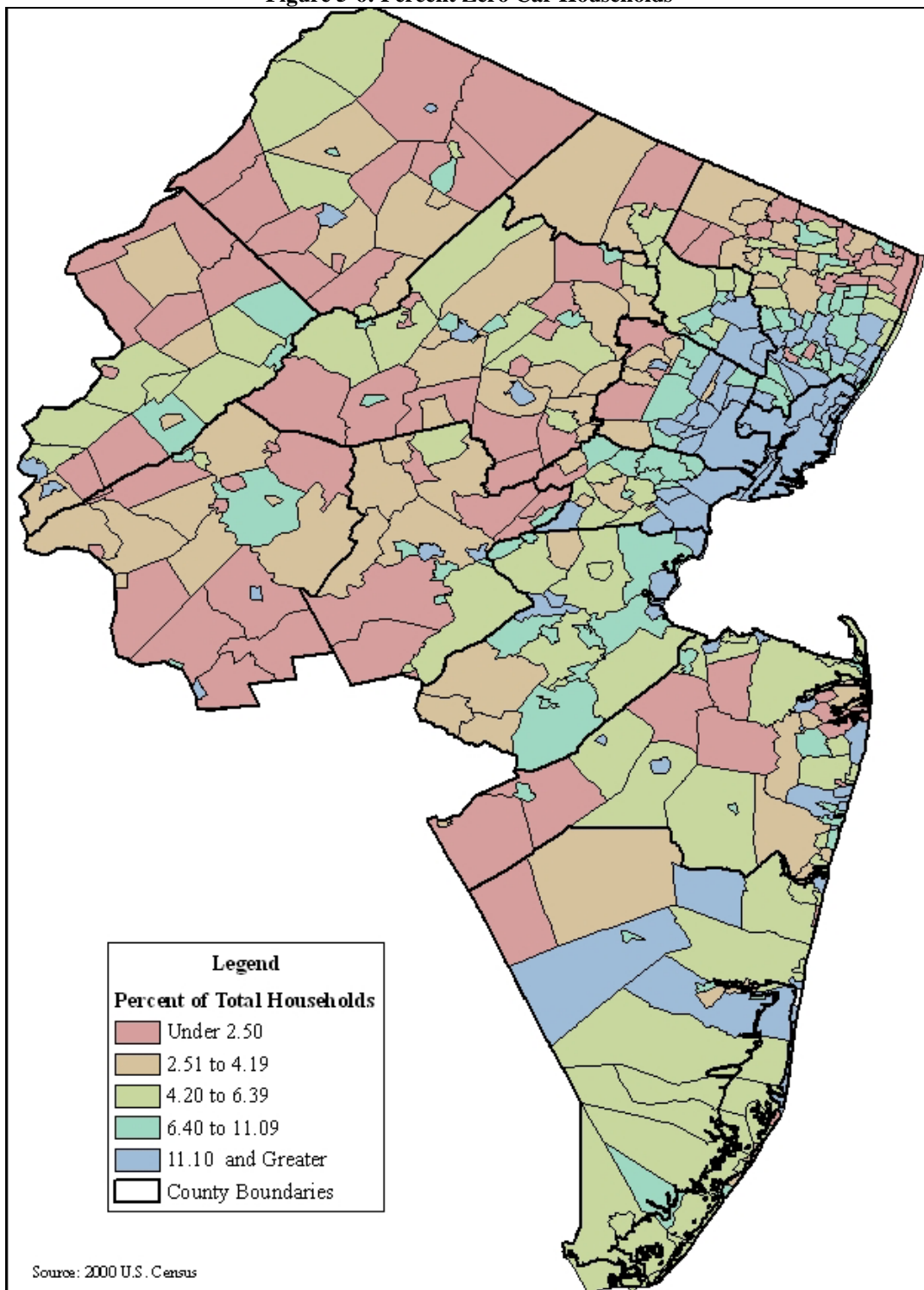
The final target group used for this analysis is households who do not own or have access to a private automobile. As stated previously, individuals with low incomes are not as likely to own automobiles and thus have fewer mobility options than people with higher incomes.

Table 5-2, shown previously, indicates that in 2000, approximately 300,000 households in the region had no vehicle – nearly 14 percent of all households. This also reinforces that the region has a large and comprehensive public transportation network, making transit a viable alternative to the private automobile.

Figure 5-6, on the following page, shows the households without a car as a percent of total households. As with the other indicators of transit need listed above, the municipalities with the highest percentages of zero car households are in Essex, Hudson, and Passaic counties. With the exception of a few scattered municipalities in Monmouth and Ocean counties, most of the region exhibits a relatively low percentage of zero car households.



Figure 5-6: Percent Zero Car Households





D. Economic Indicators

The need for public and work-related human service transportation in an area and the nature of the services also depend on various economic factors, such as the number of jobs. Commuting patterns and habits of workers in a given area are often influenced by employment locations. The data used to understand these commuting patterns and habits are commonly referred to as journey to work data. This section analyzes these factors for the region.

Table 5-3 shows the number of jobs by county, as well as the projected trend in employment growth between 2000 and 2010. At the time of the 2000 census, Bergen County had the largest employment base in the region, with a total of 480,620 jobs. Middlesex County followed with 406,190 jobs and Essex County with 396,180 jobs. Figure 5-7, on the following page, shows the job totals by municipality. Generally, the eastern portion of the region has more jobs, while the northwestern, southwestern, and western peripheries of the study exhibit the lowest number of total jobs. These statistics are consistent with the population and land uses within these areas.

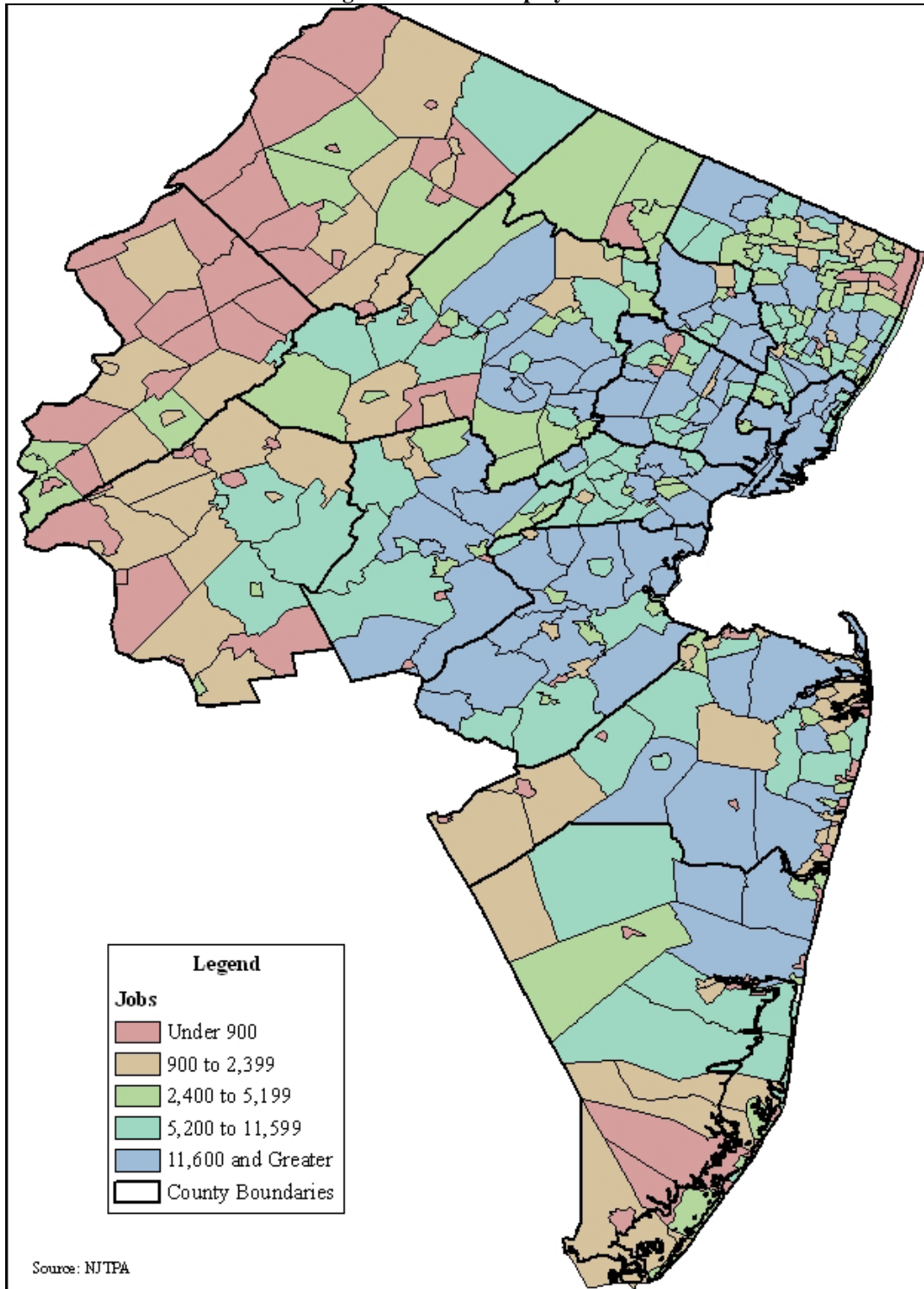
Table 5-3: Employment Projections by County

County	2000		2010		Employment Change	Percent Change	Share of Change
	2000	Share	2010	Share			
Bergen	480,620	16.0%	504,180	15.7%	23,560	4.9%	11.3%
Essex	396,180	13.2%	400,100	12.4%	3,920	1.0%	1.9%
Hudson	257,190	8.6%	296,980	9.2%	39,790	15.5%	19.0%
Hunterdon	56,770	1.9%	64,680	2.0%	7,910	13.9%	3.8%
Middlesex	406,190	13.5%	452,120	14.1%	45,930	11.3%	22.0%
Monmouth	252,630	8.4%	273,040	8.5%	20,410	8.1%	9.8%
Morris	296,100	9.8%	309,070	9.6%	12,970	4.4%	6.2%
Ocean	138,890	4.6%	154,030	4.8%	15,140	10.9%	7.2%
Passaic	191,490	6.4%	192,190	6.0%	700	0.4%	0.3%
Somerset	203,150	6.8%	227,140	7.1%	23,990	11.8%	11.5%
Sussex	40,210	1.3%	45,720	1.4%	5,510	13.7%	2.6%
Union	251,590	8.4%	258,440	8.0%	6,850	2.7%	3.3%
Warren	35,710	1.2%	38,060	1.2%	2,350	6.6%	1.1%
Total	3,006,720	100.0%	3,215,750	100.0%	209,030	7.0%	

Source: NJTPA



Figure 5-7: 2000 Employment





In terms of projected employment growth, the region is projected to add approximately 209,000 jobs between 2000 and 2010, which is an increase of 7 percent. Hudson County is expected to experience the highest rate of employment growth, with the employment base in that county increasing 15.5 percent during the 10-year period. Other counties with significant job growth include Hunterdon County and Middlesex County, at 13.9 and 11.3 percent respectively. Overall, there are no counties that are projected to experience a decline in the number of jobs between 2000 and 2010. However, the table shows that the more suburban, less densely developed counties (i.e., Hunterdon, Ocean and Sussex) are projected to add jobs at a higher rate than the urbanized counties (i.e., Bergen, Essex and Passaic). This migration of jobs out of the older urban areas closely mirrors the population growth occurring in the region's outlying counties.

Table 5-4 compares the total number of commuters to the number who used public transportation, according to the 2000 U.S. Census. The table shows that transit accounted for 11 percent of all work trips of employed residents. Transit use among commuters reflects development patterns and other demographic characteristics that have an impact upon mode choice. Needless to say, the development patterns and transit use influence the extent and nature of the public transportation system.

Table 5-4: Work Mode Split

County	Total Commuters	Transit Commuters	Percent Transit
Bergen	427,462	46,957	11.0
Essex	328,214	61,185	18.6
Hudson	264,544	88,926	33.6
Hunterdon	62,359	1,069	1.7
Middlesex	363,176	31,419	8.7
Monmouth	291,938	25,866	8.9
Morris	239,839	10,118	4.2
Ocean	209,328	4,071	1.9
Passaic	210,378	16,944	8.1
Somerset	151,284	6,178	4.1
Sussex	72,728	1,046	1.4
Union	238,606	25,294	10.6
Warren	50,358	604	1.2
Total	2,910,214	319,677	11.0

Source: 2000 U.S. Census

As shown in Table 5-4, Hudson County had the highest percentage (33.6 percent) of transit commuters in the region. Hudson County is one of the region's most urbanized counties; it includes Jersey City as well as several other municipalities that are well-served by public transportation. Other urbanized counties, such as Essex County and Bergen County, also



exhibited high public transit use rates of 18.6 percent and 11 percent, respectively. The lowest transit use rates are in Warren County. As noted above, the transit utilization is consistent with the availability of public transportation system.

Table 5-5 shows the commuting patterns of the regional labor force, based on the county-to-county worker flow files from the 2000 U.S. Census. The table shows that a little over half of the region's workers (52.6 percent) are employed in the same county in which they reside. Approximately 35 percent are employed in New Jersey counties other than their county of residence and about 12 percent work outside New Jersey, principally New York City.

Table 5-5: County-to-County Worker Flows (Percent of Total)

County	New Jersey		Other	Total
	Intra-County	Inter-County		
Bergen	57.5	21.2	21.3	100.0
Essex	53.4	35.3	11.3	100.0
Hudson	45.9	27.2	27.0	100.0
Hunterdon	41.3	52.2	6.5	100.0
Middlesex	55.6	34.0	10.5	100.0
Monmouth	60.0	28.3	11.7	100.0
Morris	57.8	35.1	7.1	100.0
Ocean	57.7	38.8	3.5	100.0
Passaic	45.5	48.0	6.4	100.0
Somerset	43.9	49.7	6.4	100.0
Sussex	40.8	54.1	5.2	100.0
Union	47.5	43.3	9.2	100.0
Warren	41.8	50.5	7.8	100.0
Total	52.6	35.3	12.1	100.0

Source: 2000 U.S. Census

E. Major Trip Generators

As discussed previously, demand is increasing for county transportation programs that serve non-emergency medical needs as well as social and recreational trips. These locations are important destinations for residents, particularly for social service agency clients and transit dependent populations. These major generators of demand for transportation include such destinations as large employers, retail centers and malls, health care centers, job training centers, and day care centers. As part of this analysis, a comprehensive inventory of these destinations was assembled. The inventory is presented in Figure 5- and Figure 5- on the following pages.

Figure 5- depicts major travel generators, including major health care centers, regional retail centers and malls, and all employers with more than 500 employees at a single location. Most of



the major employment, health care, and retail generators are located in the northeastern part of the region, which is also the area with the highest population density and most intense development. The remaining generators are primarily distributed throughout the central and southeastern portions of the region.

Figure 5- shows child care and job training centers in the region. Child care centers are heavily concentrated along the eastern and northeastern portions. Job training centers are primarily located in the northeastern and central portions of the study area, which is also where many of the major employers are located.



Figure 5-8: Major Employers, Health Care Centers, and Retail Centers & Malls

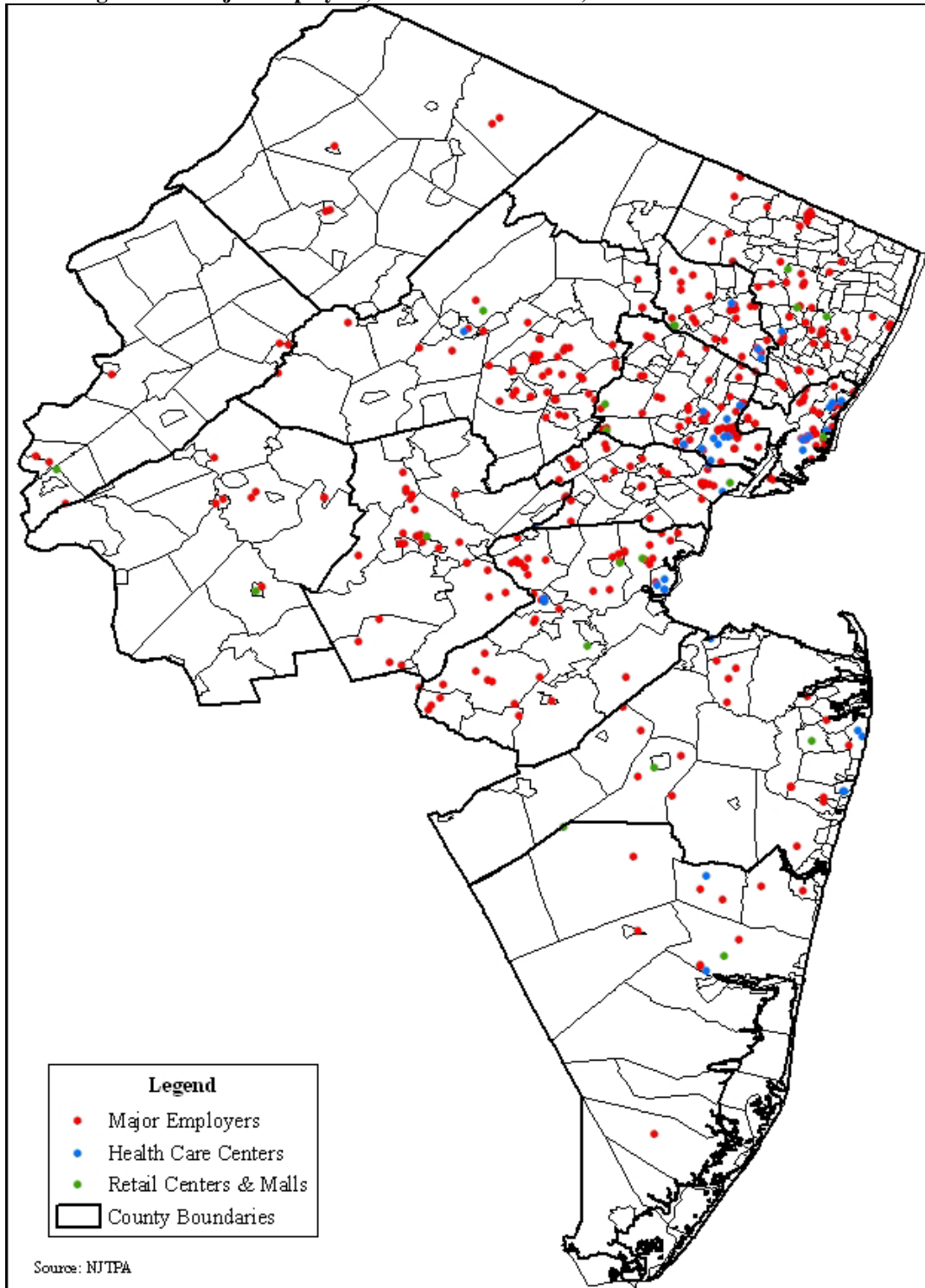
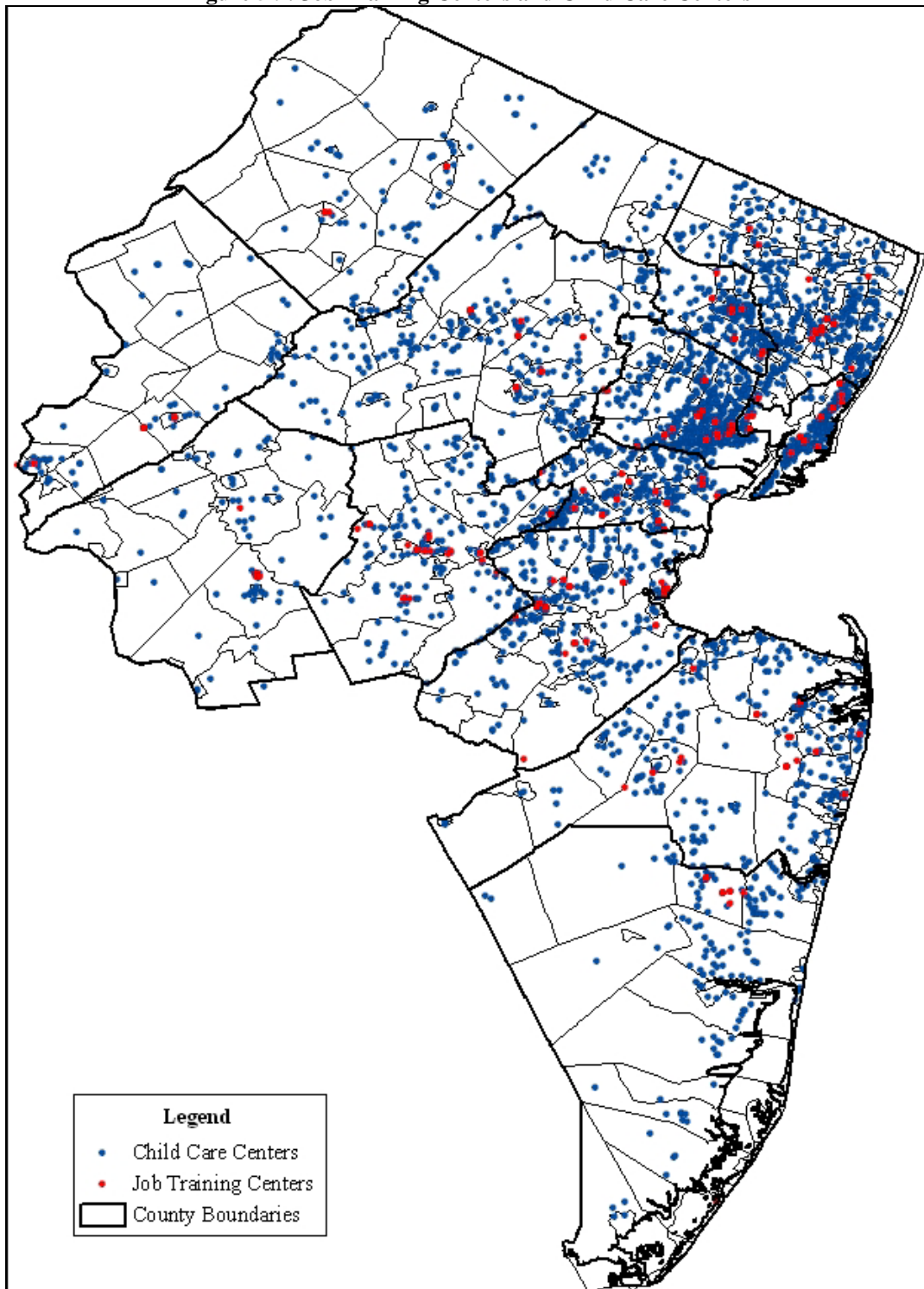




Figure 5-9: Job Training Centers and Child Care Centers





F. Mobility Needs Assessment

This section presents an overview of the likelihood of transit use and a composite measure of mobility need. An assessment of mobility need was performed to identify those areas with the greatest need and potential demand for public and human service transportation. A dozen variables were used to rate each municipality in terms of transit potential. These variables include both rates and aggregate measures of mobility need. Rates, such as percentage of seniors in total population and density of senior citizens, are useful in understanding the composition of an area. Aggregate measures, such as total senior citizen population, indicate the potential for travel in general, and transit trip making in particular.

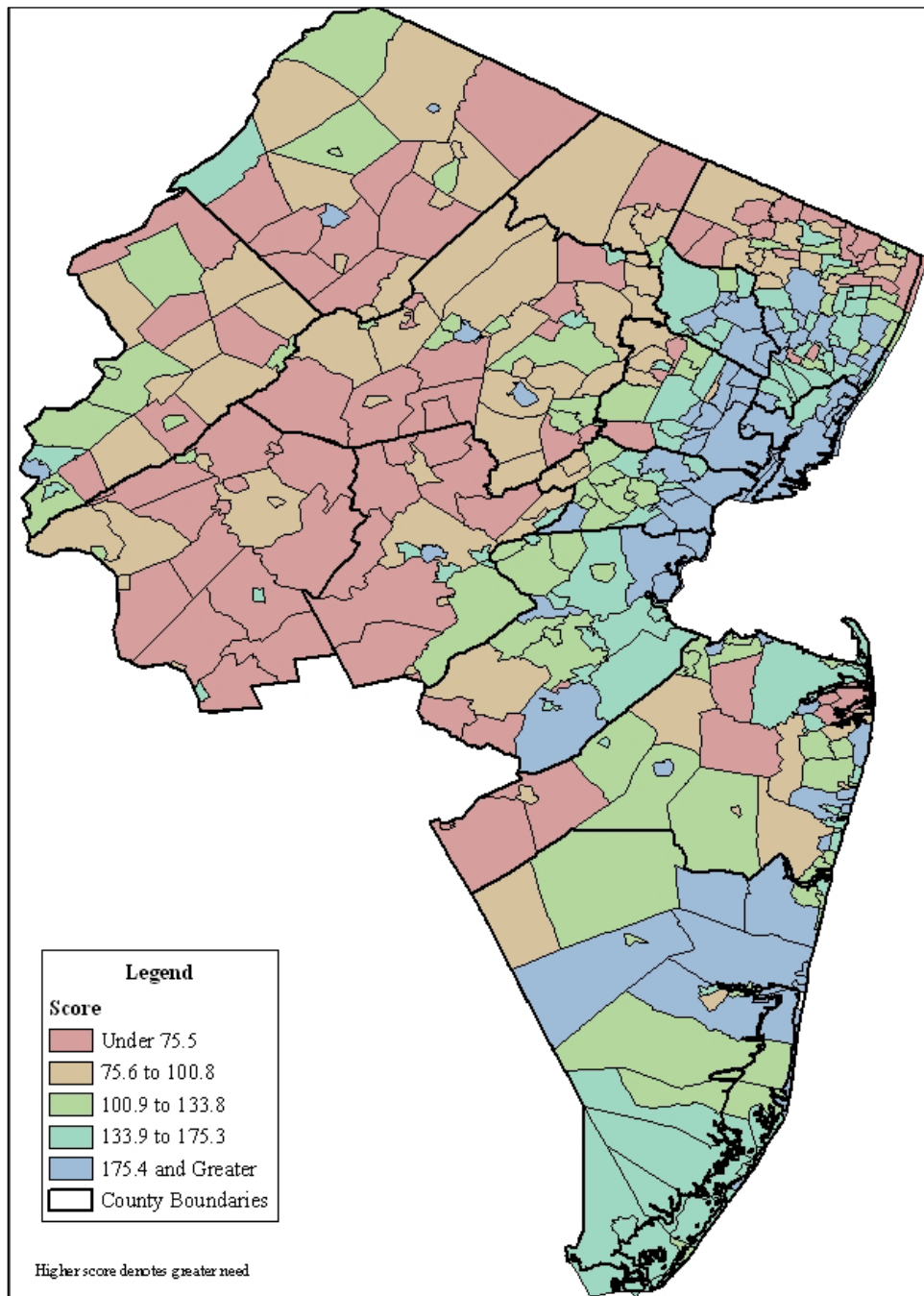
Twelve variables were used to analyze mobility need for the region and were derived from the four target groups discussed in this section, including senior citizens (65 years old and above), persons with disabilities, persons at or below the poverty level, and zero car households. For each target group, three variables were utilized (number, percent, and density).

For all variables, higher values are indicative of greater need and likelihood of transit use. For example, a municipality with high senior citizen density or a high number of zero car households exhibits greater mobility need and propensity for transit use. In this analysis, a standardized score has been used to combine the different variables. With this approach for each variable, the municipality with the lowest value is assigned a score of zero while the municipality with the highest value is assigned a value of 100. The other areas are computed by interpolating between maximum and minimum values. These scores can then be added for 12 variables. Accordingly, the highest possible score would be 1,200.

Figure 5-10, shown on the following page, presents the Mobility Needs Score by municipality for the region, and illustrates that the areas attaining the highest scores (175.4 and Greater) are concentrated in the northeastern portion of the study area, which includes portions of Bergen, Essex, Hudson, Passaic, and Union Counties. In addition, a few coastal communities in Monmouth County as well as a few communities in the northern portion of Ocean County also exhibit high mobility need. These results reflect the combined impact of the variables described above. The figure also shows that much of the northern and western portions of the study area exhibit low scores and indicates a low level of mobility need.



Figure 5-10: Mobility Needs Assessment Scores





G. Comparing Types of Places in North Jersey

In developing strategies and alternatives for the NJTPA to consider, a place-based approach was used that is consistent with the NJTPA's Strategy Evaluation process. This allowed for consideration of how the attributes of types of locale might influence the regional themes. An earlier iteration of the Strategy Evaluation was previously used in the Regional Transportation Plan. The Strategy Evaluation process considers 10 place types. These are:

- Urban Center – large cities with a multifarious land uses; high population and employment densities; economic centers for the entire region with diverse demographic and socioeconomic groups (e.g., Newark).
- Urban Area – similar to Urban Centers, but are not regional economic centers; includes large concentrations of multi-family housing (e.g., Hoboken).
- Mature Metropolitan Area – residentially oriented places; lower density than Urban Areas; includes local commercial and service activities, but not regionally scaled economic centers (e.g., Montclair).
- Metropolitan with Industry – includes cities or parts of cities with industrial, port and/or warehousing activities; economic centers of regional significance; older infrastructure and housing stock (e.g., Carteret).
- Metropolitan with Office – places with a significant number of white-collar or office jobs, centers of regional employment; highway-oriented predominated by single family homes with small concentrations of multi-family housing (e.g., Parsippany).
- Metropolitan with Shopping – includes one or more regional shopping malls attracting shoppers from throughout the region; highway-oriented predominated by single-family homes (e.g., Paramus).
- Suburb – also known as bedroom communities; almost exclusively residential in nature; single family homes built at low densities; resident workers commute to work in other parts of the region. (e.g., Middletown).
- Recreation Area – significant proportion of seasonal housing units with nearby recreational amenities such as beaches or ski resorts; economic activities oriented toward recreation with various local commercial and service activities (e.g., Seaside Heights).
- Rural Town – local activity centers for the surrounding population; mostly residential land uses with some local commercial and service activities (e.g., Sussex and Franklin Borough).



- Rural Area – low population density; farming is predominant economic activity (e.g., Alexandria in Hunterdon County).

Figure 5-11, shown on the following page, illustrates the distribution of these place types throughout the NJTPA region. For the purposes of developing strategies and alternatives for human service transportation coordination, the number of place types has been distilled down to four broad groups. These are:

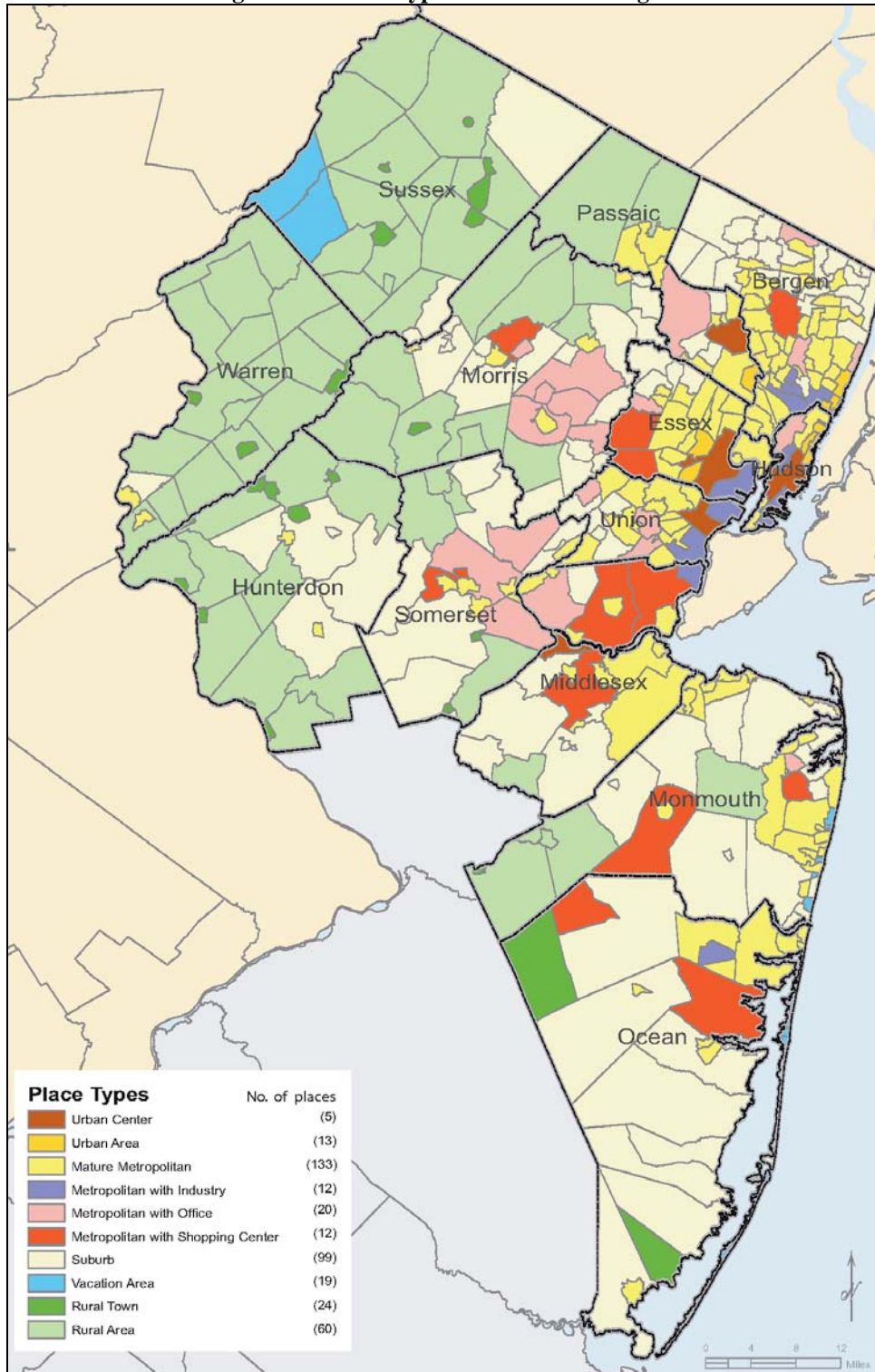
- Urban Areas – includes Urban Centers, Urban Areas, Mature Metropolitan Areas, and Metropolitan with Industry places.
- Metropolitan Areas – includes Metropolitan with Office, Metropolitan with Shopping places and Recreation areas in proximity to these places.
- Suburban Areas – includes Suburban places and Recreation areas in proximity to them.
- Rural Areas – includes Rural Towns, Rural Areas, and Recreation areas in proximity to these places.

Table 5-6, presented at the end of the chapter, shows a comparison of the demographic measures for each of the NJTPA counties, and includes information on the eight regional centers identified. Table 5-7 presents demographic information for the urban areas within the region.

Further examination of the place types and potential segmentation of regional themes resulted in the strategies discussed in the following section.



Figure 5-8: Place Types in the NJTPA Region



Source: NJTPA Strategy Evaluation, Regional Transportation Needs, October 2007



1. Urban Area Strategies

The urban areas of the NJTPA region consist mainly of Bergen, Essex and Hudson counties with parts of Union, Passaic and Middlesex counties. These areas have a significant amount of public transportation due to their high concentrations of population and employment. These areas also have high percentages of low-income population and zero car households, as shown in Section 1. These areas also include a number of major destinations, which are attractors for regional travel.

The needs common to the urban areas are:

- better communication between counties and municipal providers;
- improved services for low-income workers, particularly for second and third shifts; and
- improved information related to employment at major destination areas such as Newark Liberty International Airport, regional malls (e.g., the Livingston Mall), and the Meadowlands.

These needs could be addressed through a number of mechanisms that would not only facilitate coordination between the subregional partners, but also assist the individual counties in meeting their own intracounty needs. Strategies would focus on enhancing communication among the existing human service transportation providers and sponsoring efforts to enhance the transportation opportunities of low-income workers, particularly at major employment centers throughout the subregion.

2. Metropolitan Area Strategies

The metropolitan areas include significant parts of Passaic, Morris, Union, Middlesex, Somerset, Monmouth and Ocean counties. The land use patterns in these metropolitan areas present challenges for transportation since highway-oriented development dominates these areas, necessitating auto travel for most residents and workers to move between major origins and destinations. As such, transportation disadvantaged groups (i.e., low income, persons with disabilities, seniors and zero car households) have little recourse other than public transportation and (when eligible) human service transportation. Furthermore, these areas have a number of major destinations (e.g., shopping malls, office parks, and regional medical facilities). Improving transportation service to these destinations is vitally important to those individuals who need access to them.

While there is a substantial amount of service provided in these areas, that service is operated by numerous and disparate agencies. NJ Transit provides services in dense corridors and its rail lines take people to major urban employment centers both in the region and beyond (e.g., New York). As such, service is predominately commuter oriented. Local services are provided to fill the gaps in these areas (e.g., Middlesex County Area Transit, or MCAT). However, these



services are often not seamless, which discourages transfers. Furthermore, the multitude of different service providers makes it difficult for the public to know what options are available.

Strategies that could assist coordination in these areas include:

- improved customer information for available services;
- integration of fares between local services and NJ Transit to foster increase transfers at connection points;
- improved service coordination among local agencies; and
- improved access to existing public transportation routes.

3. Suburban Area Strategies

Suburban areas are often difficult to serve due to the low density of residential and commercial development. Typically, suburban areas serve as origins for travel to other parts of the region (e.g., to urban employment centers, shopping centers, and/or medical facilities). Furthermore, there is no one congruent area of suburban development in the region. Rather, suburban areas exist in pockets in various parts of the region. Pockets of suburban development are found in Hunterdon, Middlesex, Monmouth, Morris, Ocean and Somerset counties. There are even isolated suburban areas in the urbanized counties – Bergen, Essex, Passaic and Union.

Strategies that could assist coordination in suburban areas are similar to those of metropolitan areas and include:

- improved customer information for available services;
- integration of fares between local services and NJ Transit to foster increased transfers at connection points; and
- improved access to existing public transportation routes.

4. Rural Area Strategies

Sussex and Warren counties are the only two counties in the region that are primarily rural. In addition to these two counties, portions of Hunterdon, Morris and Passaic counties have rural characteristics and there are rural pockets in Middlesex, Monmouth, Ocean and Somerset. These areas are characterized by a general lack of NJ Transit service due to their low populations and densities. As such, meeting the challenges of transporting transportation disadvantaged groups is left to the individual counties and/or the municipalities in these areas. In Warren and Sussex counties, the counties provide demand response service to their residents and also operate some fixed-route services. Additional services are provided by a number of non-profit organizations as well as towns and villages.

The existing services in these counties focus on those who need transportation most. As such, there are concerns that a large segment of the transportation disadvantaged population is



currently underserved. In addition, the need for out-of-county travel for non-emergency medical trips is a serious issue. The availability of information also was raised as an issue. Often the county staffs are not aware of what their counterparts in the region are doing, which might assist them in their own efforts.

Strategies to assist rural areas could include:

- improving communication with regional colleagues;
- improving the quality of information available to local agencies (e.g., UWR policies) to reduce perceived barriers to coordination;
- improving service coordination between the counties and other local providers; and
- improving access to medical facilities located in other parts of the region.

5. Regional Strategies

Some common themes that were identified throughout the region included issues related to vehicle and driver insurance, technology implementation, and joint purchasing of services and equipment. By their nature, these issues cut across counties and subregions and involve efforts towards affecting legislative change, ensuring regional interoperability of technologies and fostering intercounty cooperation. In the long term these strategies may even include changes in institutional structures at the county and subregional level.

Regional strategies include the following:

- improving communication among counties at the subregional level;
- facilitating the acquisition of interoperable technologies aimed at improving service coordination;
- working to affect legislative change to eliminate barriers to coordination; and
- developing incentives to encourage participation of county and local agencies in coordination efforts.

H. Summary

This chapter provided a description of the environment in the NJTPA region. The analysis of population projections shows that the overall population will continue to increase, with the highest growth rates in Warren, Ocean, and Sussex counties. Also, the geographic distribution analyses show that senior citizens, persons with disabilities, persons living at or below the poverty level, and zero car households are heavily concentrated in the northeastern and southeastern portions of the region. The northeastern portion includes portions of Bergen, Essex, Hudson, Passaic, and Union Counties, while the southeastern portion includes portions of Monmouth and Ocean counties. Employment projections also show that a significant number of



the new jobs created by 2010 will be located in the outlying counties that are also experiencing significant population growth.

The information presented here provides background information for the regional analysis and shows a region that varies widely. It is useful input to better understand the issues that will arise and need to be addressed in coordinating human service transportation in the NJTPA region.



Table 5-6: Demographic Comparisons of the NJTPA Counties

Demographic Info	County												
	Bergen	Essex	Hudson	Hunterdon	Middlesex	Monmouth	Morris	Ocean	Passaic	Somerset	Sussex	Union	Warren
2000 pop	884,118	793,633	608,975	121,989	750,162	615,301	470,212	510,916	489,049	297,490	144,166	522,541	102,437
2010 pop	912,680	810,440	666,980	133,360	819,730	657,940	492,120	579,480	513,100	325,480	161,920	543,390	119,410
Area	236	129	56	437	318	485	480	750	197	305	535	105	362
Pop Density	3,751	6,135	10,962	279	2,360	1,268	979	681	2,485	976	269	4,966	283
2000/2010 Pop % Chg	3.2%	2.1%	9.5%	9.3%	9.3%	6.9%	4.7%	13.4%	4.9%	9.4%	12.3%	4.0%	16.6%
Senior Population (65+)													
2000	134,466	94,827	69,971	12,193	92,406	77,249	54,461	113,240	59,105	33,385	13,029	72,126	13,181
2010 ¹	130,513	91,580	68,699	15,336	96,728	81,585	61,515	124,588	57,980	35,803	17,811	64,663	14,926
Senior Percent													
2000	15.2%	11.9%	11.5%	10.0%	12.3%	12.6%	11.6%	22.2%	12.1%	11.2%	9.0%	13.8%	12.9%
2010	14.3%	11.3%	10.3%	11.5%	11.8%	12.4%	12.5%	21.5%	11.3%	11.0%	11.0%	11.9%	12.5%
Poverty Population													
2000	43,417	120,006	93,149	3,027	48,205	38,242	17,872	34,945	59,072	11,061	5,693	43,319	5,492
2010	43,417	120,006	93,149	3,027	48,205	38,242	17,872	34,945	59,072	11,061	5,693	43,319	5,492
Poverty Percent													
2000	4.9%	15.1%	15.3%	2.5%	6.4%	6.2%	3.8%	6.8%	12.1%	3.7%	3.9%	8.3%	5.4%
2010	4.9%	15.1%	15.3%	2.5%	6.4%	6.2%	3.8%	6.8%	12.1%	3.7%	3.9%	8.3%	5.4%
Disabled Population ²													
2000	224,260	276,125	237,371	20,636	201,348	147,809	100,005	167,750	174,778	58,701	32,548	152,469	28,225
2010	224,260	276,125	237,371	20,636	201,348	147,809	100,005	167,750	174,778	58,701	32,548	152,469	28,225
Disabled Percent													
2000	25.4%	34.9%	39.0%	16.9%	26.8%	24.0%	21.3%	32.8%	35.7%	19.7%	22.6%	29.2%	27.6%
2010	25.4%	34.9%	39.0%	16.9%	26.8%	24.0%	21.3%	32.8%	35.7%	19.7%	22.6%	29.2%	27.6%
Households													
2000	330,891	283,692	230,698	43,730	265,898	224,447	169,794	200,553	163,917	109,070	50,789	186,093	38,675
2010	330,891	283,692	230,698	43,730	265,898	224,447	169,794	200,553	163,917	109,070	50,789	186,093	38,675
Zero-Vehicle HHs													
2000	29,432	72,024	80,912	1,500	22,769	17,388	8,086	16,574	26,518	5,468	2,132	23,653	2,855
2010	29,432	72,024	80,912	1,500	22,769	17,388	8,086	16,574	26,518	5,468	2,132	23,653	2,855
Percent 0-Veh HHs													
2000	8.9%	25.4%	35.1%	3.4%	8.6%	7.7%	4.8%	8.3%	16.2%	5.0%	4.2%	12.7%	7.4%
2010	8.9%	25.4%	35.1%	3.4%	8.6%	7.7%	4.8%	8.3%	16.2%	5.0%	4.2%	12.7%	7.4%
Median HH Income													
2000	65,241	44,944	40,923	79,888	61,446	64,271	77,340	46,443	49,210	76,933	65,266	55,339	56,100
2010	65,241	44,944	40,923	79,888	61,446	64,271	77,340	46,443	49,210	76,933	65,266	55,339	56,100
2000 Employment													
2000	480,620	396,180	257,190	56,770	406,190	252,630	296,100	138,890	191,490	203,150	40,210	251,590	35,710
2010	480,620	396,180	257,190	56,770	406,190	252,630	296,100	138,890	191,490	203,150	40,210	251,590	35,710
2010 Employment													
2010	504,180	400,100	296,980	64,680	452,120	273,040	309,070	154,030	192,190	227,140	45,720	258,440	38,060
2000/2010 Emp % Chg													
2000/2010	4.9%	1.0%	15.5%	13.9%	11.3%	8.1%	4.4%	10.9%	0.4%	11.8%	13.7%	2.7%	6.6%

Source: Census 2000

¹ 2010 senior population by county was provided by NJTPA.

² Per US Census definition : age 5 or older with disability; including sensory, physical, mental and self-care disabilities.



Table 5-7: Demographic Comparison by Impacted Urban Area

Demographic Variable	Municipality							
	Asbury Park	Elizabeth	Jersey City	New Brunswick	Newark	Newton	Paterson	Phillipsburg
2000 pop	16,930	120,568	240,055	48,573	273,546	8,244	149,222	15,166
2010 pop	18,710	133,020	265,610	55,310	280,610	8,840	151,230	15,350
Area	1.48	13.64	16.61	5.74	25.92	3.12	8.72	3.34
Pop Density	11,439	8,839	14,452	8,462	10,553	2,642	17,113	4,541
2000/2010 Pop % Chg	10.5%	10.3%	10.6%	13.9%	2.6%	7.2%	1.3%	1.2%
Senior Population (65+)								
2000	1,873	12,002	23,405	2,956	25,559	1,296	12,495	2,318
2010 ¹	2,676	15,031	27,358	6,361	33,112	1,096	18,904	3,300
Senior Percent								
2000	11.1%	10.0%	9.7%	6.1%	9.3%	15.7%	8.4%	15.3%
2010	14.3%	11.3%	10.3%	11.5%	11.8%	12.4%	12.5%	21.5%
Poverty Population	5,006	20,963	44,075	11,454	74,263	882	32,474	2,009
Poverty Percent	29.6%	17.4%	18.4%	23.6%	27.1%	10.7%	21.8%	13.2%
Disabled Population ²								
2000	7,369	47,365	96,362	13,983	127,357	2,713	70,434	5,818
2010	43.5%	39.3%	40.1%	28.8%	46.6%	32.9%	47.2%	38.4%
Households								
2000	6,786	40,489	88,617	13,053	91,366	3,270	44,760	6,038
2010	2,449	10,207	36,050	3,127	40,360	557	13,110	1,121
Percent 0-Veh HHs	36.1%	25.2%	40.7%	24.0%	44.2%	17.0%	29.3%	18.6%
Median HH Income	23,081	35,175	37,862	36,080	26,913	41,667	32,778	37,368
2000 Employment	4,640	42,020	108,270	25,730	160,010	4,520	43,540	4,600
2010 Employment	4,780	44,120	130,780	27,440	161,690	4,950	43,680	4,690
2000/2010 Emp. % Chg	3.0%	5.0%	20.8%	6.6%	1.0%	9.5%	0.3%	2.0%

Source: Census 2000

- ¹ 2010 senior population assumes same percentage as for the county which was provided by the NJTPA. Per US Census definition: age 5 or older with disability; including sensory, physical, mental and self-care disabilities.
- ² disabilities.