

Northeast New Jersey Metro Mobility Study

Technical Memorandum #1:
Existing Conditions and Travel Patterns

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1. Study Area and Demographics

1.1. Study Area

The study area includes the northeast portion of New Jersey, encompassing all of Bergen County, the majority of Passaic County (areas not addressed in the previous Northwest New Jersey Bus Study), and bordering areas in Hudson, Essex, Morris, and Sussex County in New Jersey and Rockland County in New York (Figure 1).

The study area is characterized by intensive urban commercial, residential and industrial uses in south and southeast areas and suburban residential and commercial uses in the north, northeast and western areas (Figure 2). As is typical of development patterns in this area of New Jersey, land use types adjacent to major highways and waterways nearer to New York City (east & southeast) are generally industrial/commercial in nature, and the overall land use pattern is urban. Residential uses in these areas tend to be high-density, multi-family urban residential, mixed use residential, and small-lot single family units. Downtown areas in these regions provide governmental and commercial uses. As the study area reaches northeast, north and west away from New York City, land uses become increasingly residential with larger lot sizes, intermixed with some commercial and isolated industrial uses adjacent to major highways. Township centers/downtowns in these areas tend to include primarily municipal uses, with regional shopping areas and strip malls along major highways and arterials providing the commercial element.

1.2. Demographics

Demographic elements examined in the course of the bus study were those elements of the population that are typical indicators of the population's need for, or potential benefit from, transit service. Population density, employment density, income level, automobile ownership, and age are the key socio-demographic aspects of the study area considered. Employment density is discussed in the following section under trip generators.

1.2.1. Population Density

Figure 3 illustrates the current population density of each municipality in the study area. Population densities range from less than 1,000 people per square mile in towns such as Saddle River and Alpine in Bergen County to 24,000 people per square mile in the cities of Paterson and Passaic in Passaic County. In Bergen County, the municipalities with the greatest population densities include Hackensack, Englewood, Teaneck, and Fort Lee. The denser municipalities in Passaic County include Clifton, Passaic, and Paterson. As may be predicted by the land use patterns described above, the population density of municipalities at the intersections of the area's major highways and the areas nearer to New York City are denser than areas to the north and west. The least-densely populated municipalities of Passaic County shown in Figure 3 (West Milford, Ringwood, and Bloomingdale) were included in the Northwest NJ Bus Study.

Figure 1: Study Area

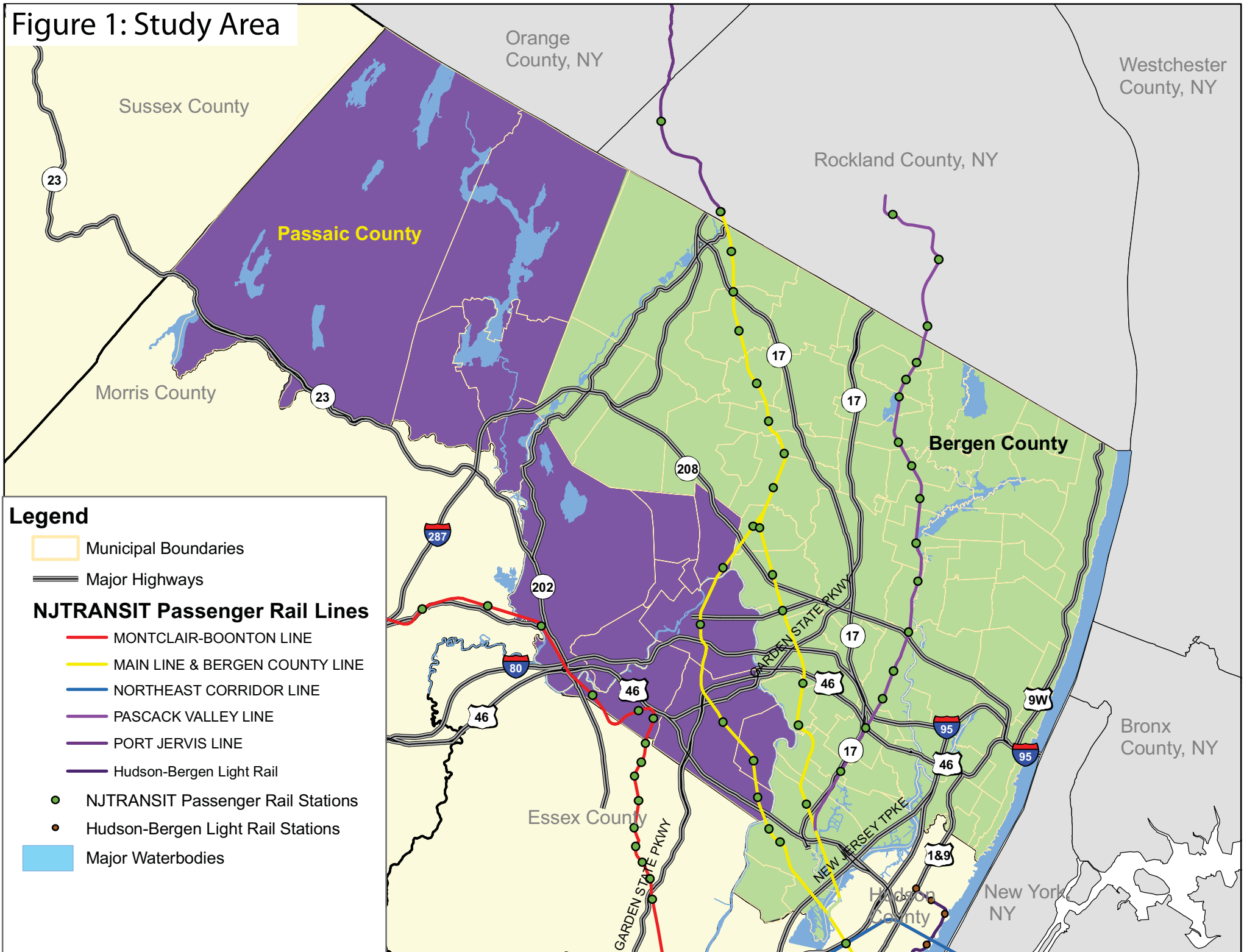


Figure 2: Land Use

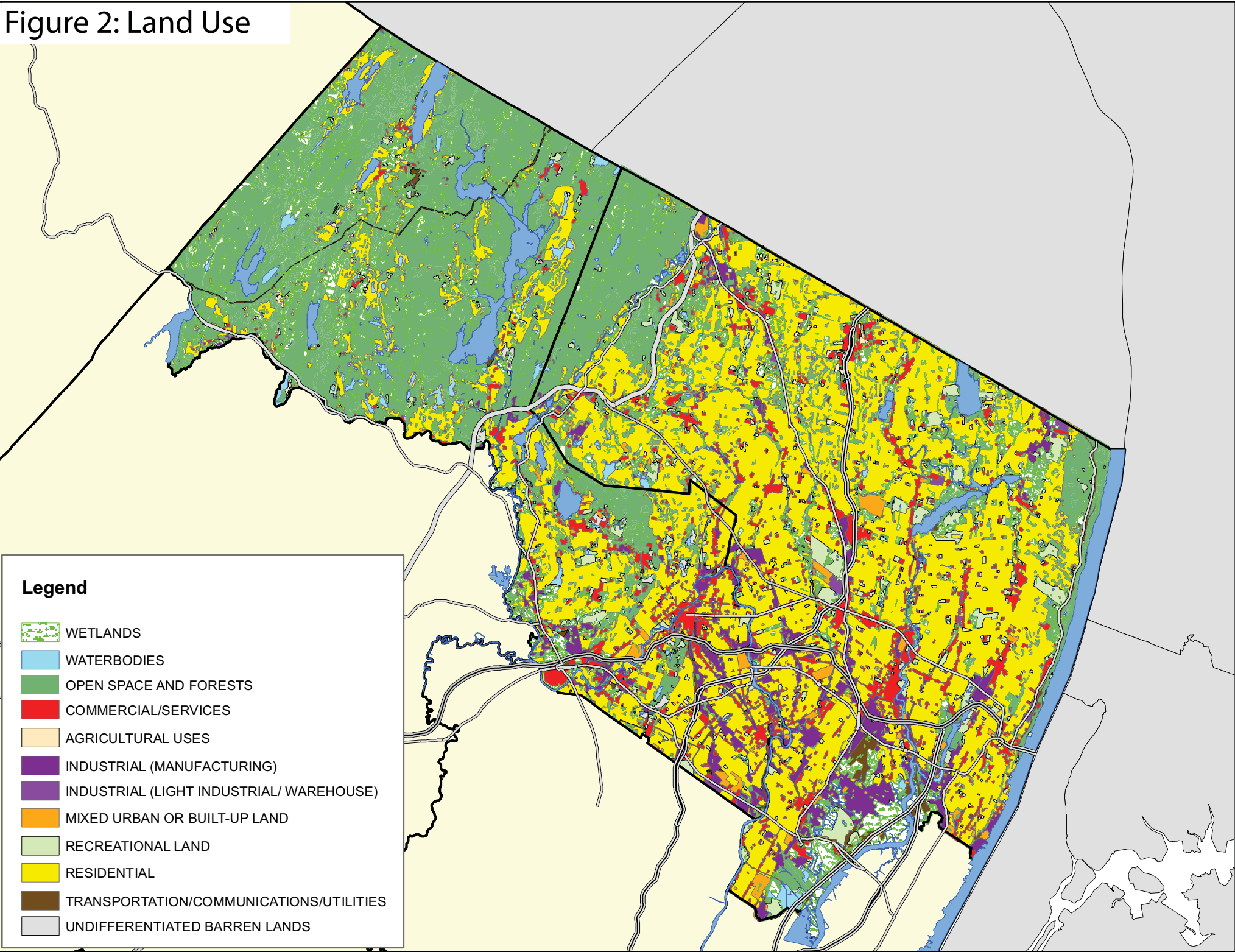
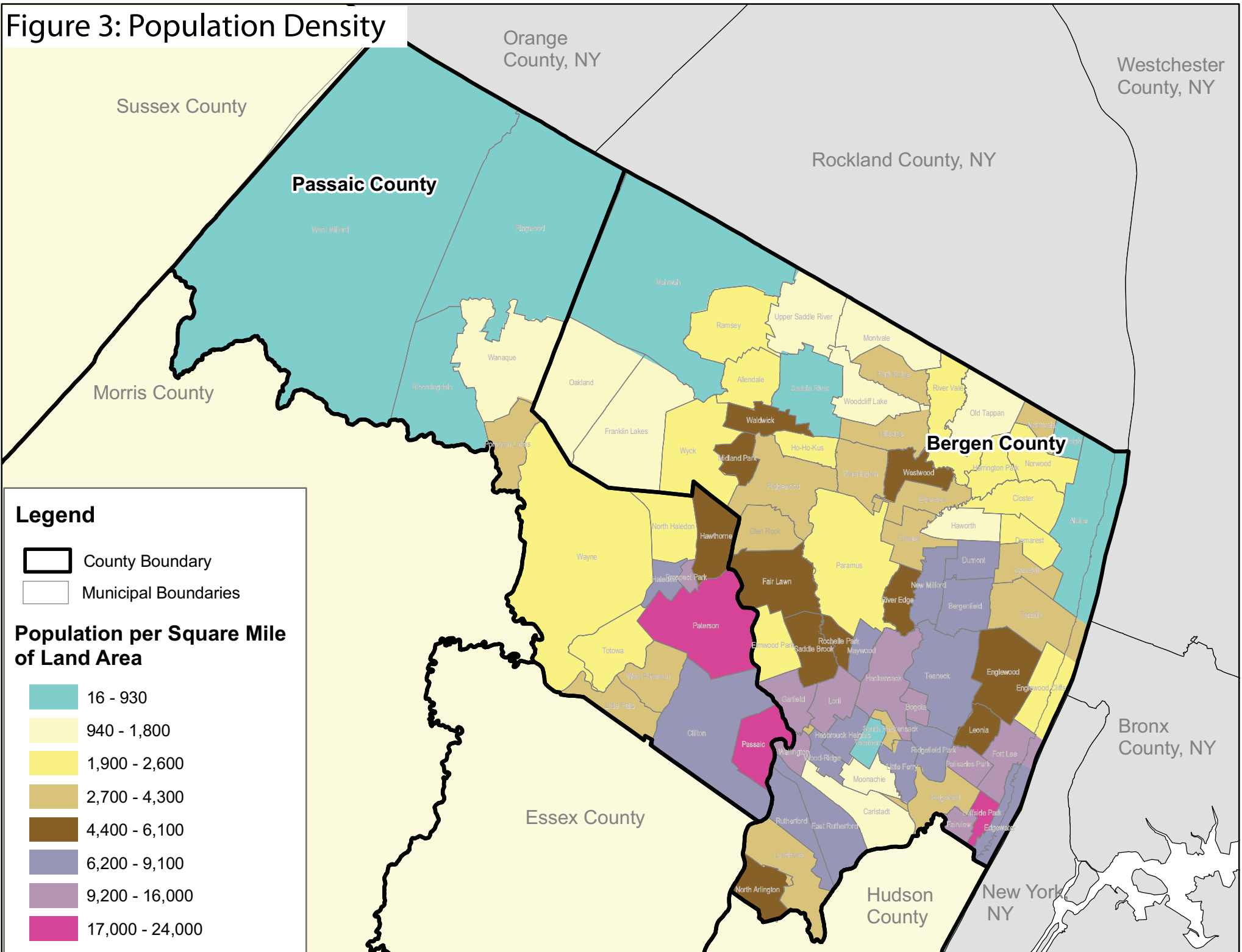


Figure 3: Population Density



1.2.2. Income

Income can be used as an indicator for transit dependence. Households with lower incomes are more often transit dependent than more affluent households that can afford private vehicles, insurance, and parking fees in urban areas. Household income can also be used as an indicator for job sector and transit need. Lower-income households tend to be employed by industries that do not adhere to the typical commuter day of 8am to 6pm. These areas tend to be in need of increased reverse-commute service and extended and overnight transit service.

Figure 4 illustrates the distribution of household income levels throughout the study area, according to the 2000 Census. The southeastern quadrant of the study area includes the municipalities with the lowest median household income as compared to the rest of the study area. These are also the most densely-developed municipalities that include larger industrial areas and more urban-style residential development. Income levels increase to the north and west of this area to more suburban regions, though on the whole, Bergen County includes more municipalities with high median household income (\$81,000 or greater) than Passaic County.

Figure 5 illustrates municipalities with lower income households and is best considered in the context of Figure 4. Together, Figures 4 and 5 confirm some generalizations made about the development pattern and income demographics of the study area. Municipalities in the southeast quadrant generally have lower household incomes than areas north and west. Municipalities in Bergen County along the New York borders (east and north) are generally more affluent than municipalities that border Hudson County and Passaic County. The portions of Passaic County within the study area are less affluent as a whole than Bergen County.

1.2.3. Availability of Private Automobiles (Zero Car Households)

Figure 6 supports the assumptions made in Section 1.2.2 regarding income and the availability of private automobiles. The less affluent communities in both Bergen County and Passaic County (those in the southern portion of Bergen County and Clifton, Paterson, and Passaic in Passaic County) have greater numbers of households without access to private automobiles than other communities within the study area. The communities with high numbers of households without cars are more transit dependent than communities with greater auto-ownership.

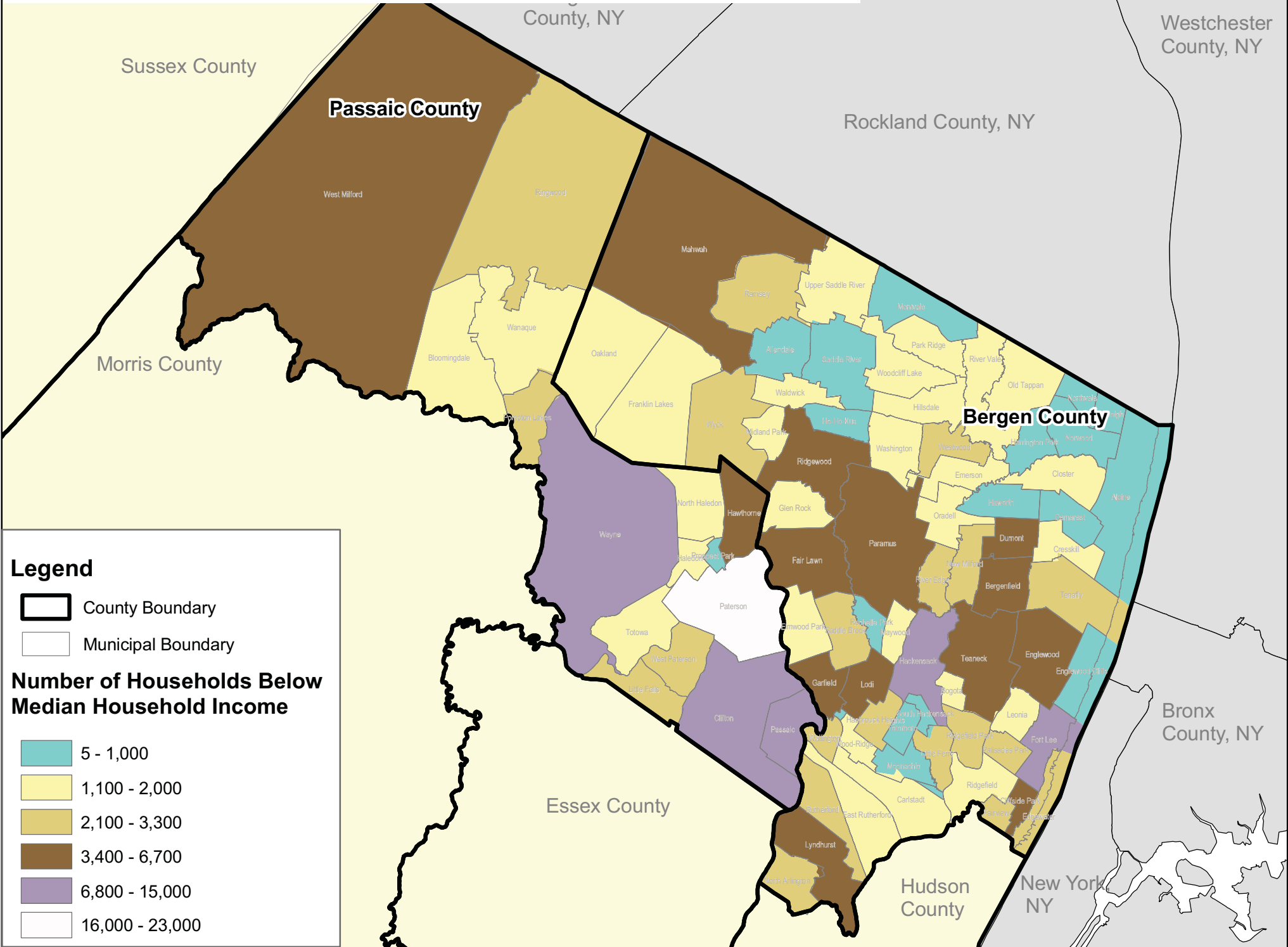
1.2.4. Population Over Age 60¹

Retirees are another demographic group who are often transit dependent. Figure 7 illustrates the study area's population over age 60 in terms of percentage total municipal population. Only Rockleigh in Bergen County has an over-60 population representing more than 25% of its total residents, but as Rockleigh is also one of the more affluent communities in Bergen County (Figure 4) it is more likely an outlier, representing a community of affluent retirees who are not transit dependent.

Communities with high percentages of residents over age 60 do not show the relatively neat and predictable pattern of location as lower income and auto availability, discussed above. While many of the lower-income communities in both Bergen and Passaic County also have a greater percentage of residents over age 60, some lower-income areas, such as Passaic, Paterson, and Hackensack have the lowest percentages of residents over age 60.

¹ At the time of the research for this study, 2010 Decennial Census data was not available for the entire study area. 2000 Decennial Census data was used. Individuals who were 60 years old in the 2000 census would be 69 at the time of the preparation of this report.

Figure 5: Households Below Median Income by Municipality



New census data available for some municipalities combined with anecdotal information from study area senior services providers indicates that the senior population of the study area is choosing to “age in place” rather than relocate to popular retirement areas in the Sunbelt and Florida. The growing population of senior residents will become a mobility issue in the future. Some transit providers are already investigating options to provide service to this population, which is scattered throughout the entire study area, including less urban municipalities that have not historically been widely served by senior shuttle-type service (see the discussion of EZ Ride in Section 2 for additional information.)

2. Existing Transit Service

Bus services in the study area, as shown in Figure 8, include a fixed bus-route network operated by NJ TRANSIT and Coach USA and specialized shuttle routes operated by Meadowlink under the name EZ Ride. In addition, a group of shuttle bus routes is operated along selected corridors in central Passaic- Bergen County and southeastern Bergen County by a loose association of private operators known as the Jitney Vans. Service providers for whom route information was available are discussed below.

2.1.NJ TRANSIT Bus Services

2.1.1. Route Structure

Within the Bergen-Passaic study area, NJ TRANSIT directly operates or contracts for service 52 bus routes providing service either within the study area, or to/from the study area to adjacent locations within New Jersey, and to/from the study area to New York City and New York State (Rockland and Orange counties). NJ TRANSIT identifies their route structure by the route numbers. Routes in the 100 and 300 series travel between New Jersey and New York City and other interstate locations. For the remainder of this technical memorandum, the 100- and 300-series are referred to as the “Interstate /NYC Routes.” Routes that travel within and between counties within New Jersey are coded with route numbers in the 1-99 and 700 and 900-ranges. For the remainder of this technical memorandum, these routes will be referred to as “Inter/Intra County Service.” The WHEELS service, operated as 900-routes in Passaic County, was discontinued in May 2010, but was part of the study when the initial assessment of existing transit service was made. Table 1 on the next page lists these routes and Figure 8 illustrates the network.

2.1.2. Bus Stops and Park-and-Rides

The majority of bus stops in the study area are walk-up facilities located along public streets and do not include passenger drop off areas or pull outs for buses. In densely populated urbanized areas, such as Fort Lee, Paterson, Passaic, parts of Clifton, Hackensack, and similar locations, this arrangement is usually sufficient, particularly for intra-county service. In more suburban locations and for inter-state service for which large numbers of riders congregate during the peak hours, this arrangement is less than optimal. For example, along the Route 3 corridor in Clifton, bus stops are located along the side of the highway, creating a dangerous situation for drop-offs and pick-ups, as drivers (both bus operators and passenger drop-offs/pick-ups) must merge back into traffic from the shoulder. In Paramus, as a result of local ordinances, no bus stop locations are signed as such. In parts of Wayne, particularly along Hamburg Turnpike, riders use retail strip mall parking lots as informal park-and-ride locations, raising the risk of towing and creating some conflict with retail property owners. The hazards and complications resulting from these conditions were noted during several interviews with NJ TRANSIT bus operators at different garage locations.

While the majority of bus stops in the study area are walk-ups, the study area is served by 23 park-and-ride facilities, some of which are also bus terminals. Park-and-rides within the study area often share space with another use under agreement between the property owner and NJ TRANSIT, such as the parking lots at Willowbrook Mall and Clifton Commons. In these circumstances, commuters are expected to park in designated areas, leaving the remainder of the parking spaces for customers of the retail/commercial facility. A similar situation guides the use of the Montvale Park and Ride, which occupies a portion of the Garden State Parkway Montvale Service Area. Some facilities, such as the Ramsey Route 17 Station and the Wayne Route 23 Transit Center are NJ TRANSIT multi-modal facilities. Others, such as the Dumont park-and-ride lots and the Fair Lawn DPW park-and-ride are owned by the municipality. Some of these facilities are free to residents and non-residents, such as Dumont, while others charge a daily or annual fee. Table 2 lists the locations and names of park-and-ride facilities; Figure 9 illustrates their location.

Table 1: NJ TRANSIT Bus Routes Serving Bergen and Passaic Counties

Line	Description	Line	Description
72	Newark - Paterson	168	Paramus - New York
74	Main - Passaic	171	Paterson - New York
75	Butler - Newark	175	Ridgewood - New York
76	Newark - Hackensack	177	Harrington Park - New York Milford - New York Express
83	Hackensack - Jersey City	178	Hackensack - New York
127	Ridgefield - Union City - New York	181	Hoboken - New York
144	Fair Lawn-Hackensack-New York	182	Hackensack - New York
145	Fair Lawn - New York	186	Dumont - New York
148	Midland Park-Fair Lawn-New York	188	River Road - New York
151	Paterson - New York Express	190	Paterson - New York
153	Fairview - Fort Lee - New York	191	Willowbrook - Little Falls - New York
154	Fort Lee-Palisades Park-New York	192	Clifton - New York
155	Bogota-Ridgefield Park-New York	193	Packanack Lake - Willowbrook - New York
156	Englewood Cliffs-New York	194	Newfoundland - New York
157	Teaneck-Ridgefield Park-New York	195	Willowbrook - Cedar Grove - New York
158	Fort Lee-Edgewater-New York	196	Warwick - New York
159	Fort Lee-New York	197	Warwick - Wayne - New York
160	Elmwood Park - New York	198	Wayne-William Paterson University-NY
161	Paterson - Passaic - New York	199	Clifton - Lyndhurst - New York
162	Maywood - New York	321	Vince Lombardi Park/Ride - New York
163	Ridgewood - New York	324	Wayne Rt.23 Transit Center - New York Express
164	Midland Park - New York	703	Haledon - East Rutherford
165	Westwood - New York	704	Paterson - Willowbrook Mall
166	Dumont - Tenafly - New York	712	Hackensack - Willowbrook Mall
167	Harrington Park - Dumont - New York	770	Paterson - Hackensack

Figure 8: Study Area Bus Service

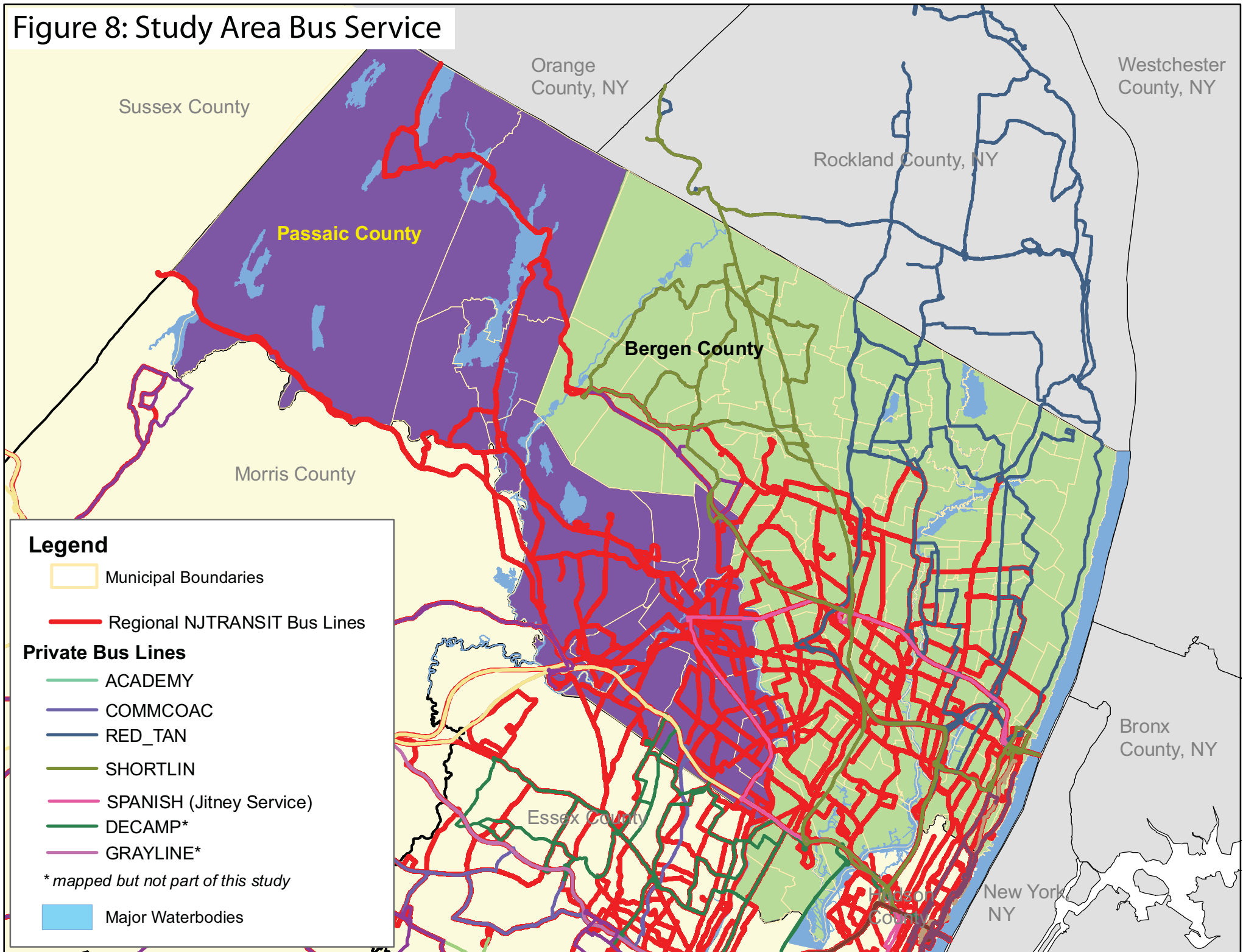
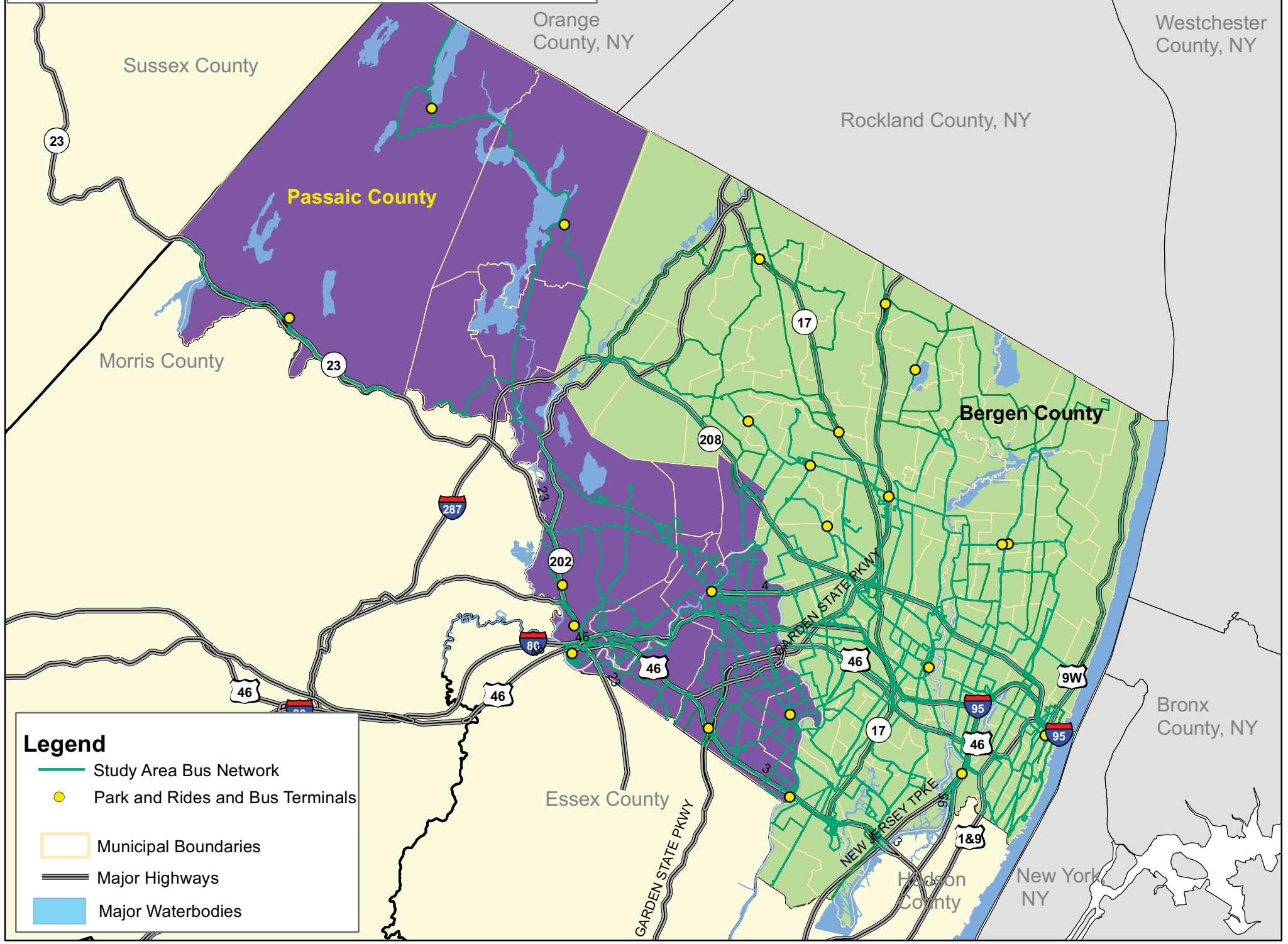


Table 2: NJ TRANSIT Park-and-Ride Facilities Serving Bergen and Passaic Counties

Park-and-Ride Name	County - Municipality	Location
Alwood Rd Lot 1	Passaic County -Clifton	Garden State Parkway Ex 153 and Alwood Avenue
Clifton Commons	Passaic County -Clifton	Kingsland Ave & Rte 3
Dumont A	Bergen County -Dumont	Madison Ave & Brook St
Dumont B	Bergen County -Dumont	Madison Ave & W. Shore Ave
Fairlawn DPW	Bergen County -Fair Lawn	Saddle River Rd (north of Moss Rd)
Lot 1	Bergen County- Fort Lee	Main St 7 Lemoine Ave
Hackensack Terminal	Bergen County - Hackensack	125 River Street
Midland Park Lot	Bergen County -Midland Park	Central Ave & Godwin Ave
Montvale Park & Ride	Bergen County - Montvale	Garden State Parkway Montvale Service Area (North)
GSP Exit 165/Oradell Ave	Bergen County- Paramus	Garden State Parkway Ex 165/Oradell Ave
Passaic Bus Terminal	Passaic County - Passaic	Lexington Avenue & Main Street
Broadway Bus Terminal	Passaic County - Paterson	22 Broadway
Ramsey Rte 17 Station	Bergen County -Ramsey	Rte 17 SB & Island Rd
Vince Lombardi	Bergen County - Ridgely	NJ Turnpike north of Ex 18
Ridgewood Bus Terminal	Bergen County - Ridgewood	Van Neste Sq
Ridgewood Park & Ride	Bergen County - Ridgewood	Rte 17 SB & Racetrack Rd
Ringwood	Passaic County - Ringwood	Skyline Drive & Cannici Drive
Mothers Park & Ride Lot	Passaic County -Wayne	Rte 23 NB & Newark- Pompton Tpke
Wayne Rte 23 Transit Center	Passaic County -Wayne	Rte 23 SB & West Belt Parkway
Willowbrook Mall	Passaic County -Wayne	Rte 46 EB & Willowbrook Blvd.
Newfoundland-W. Milford Lot 1	Passaic County - West Milford	Old Rte 23 & Kanouse Rd
West Milford Park & Ride	Passaic County - West Milford	Greenwood Lake Tpke & Lincoln Ave
Municipal Lot	Bergen County - Woodcliff Lake	Pascack Rd @ Borough Hall

Figure 9 - Park and Rides and Terminals



Legend

- Study Area Bus Network
- Park and Rides and Bus Terminals
- Municipal Boundaries
- Major Highways
- Major Waterbodies

2.1.3. Ridership

The routes serving the Bergen-Passaic County study area are popular routes. In a 2009 summary of median ridership, 16 of the study area routes are among the top 50 NJ TRANSIT routes operated in the state. Table 3 lists these routes and their weekday ridership in 2008 and 2009.

Table 3: NJ TRANSIT Top 20 Routes with Highest Ridership in the Study Area

Route	Median Weekday 2009	Median Weekday 2008	Change	%
166 Dumont - Tenafly - New York 13,6	24	13,260	364	3%
165 Westwood - New York	11,749	11,679	70	1%
190 Paterson - New York	10,270	10,750	-480	-4%
159 Fort Lee-New York	9,358	9,570	-212	-2%
167 Harrington Park - New York	8,647	8,707	-60	-1%
163 Ridgewood - New York	7,443	8,186	-743	-9%
161 Paterson - Passaic - New York 6,49	3	6,613	-120	-2%
158 Fort Lee-Edgewater-New York 5,51	1	5,373	138	3%
192 Clifton - New York	5,068	5,169	-101	-2%
156 Englewood Cliffs-New York	4,972	4,999	-27	-1%
74 Main - Passaic	4,661	4,817	-156	-3%
128 Boulevard East - New York	4,560	4,508	52	1%
712 Hackensack - Willowbrook Mall 4,40	5	4,369	36	1%
72 Newark - Paterson	3,485	3,489	-4	0%
168 Paramus - New York	3,345	3,024	321	11%
83 Hackensack - Jersey City	3,210	3,210	0	0%

The interstate/NYC routes have some of the better farebox recoveries rates for NJ TRANSIT, a function of sustained high ridership. The appendix contains a tabulation of several NJ TRANSIT routes statewide, comparing farebox recovery. Recovery ranges from a low of about 4% to over 100%. Many of the Bergen-Passaic routes recover more than 60% of the route's operating costs through passenger fares.

In 2010, NJ TRANSIT instituted a fare increase throughout their bus transit network. Local bus fare increased by 10% to \$1.50 per zone, and interstate/NYC services increased by 25%. (The fare increases also affected commuter rail and light rail.) Table 4 on the next page summarizes the ridership trends from 2008 to 2010, post-fare increase. As the data indicates, the fare increase did not have a significant impact on ridership. In fact, on several lines providing interstate service, ridership increased between 2009 and 2010. Conversely, ridership decreased on the inter-/intra-county routes between 2008 and 2009, a change that informed some service reductions on these routes. The appendix includes a figure detailing the decrease in inter-/intra-county service in the Passaic Bergen study area.

**Table 4: Median Ridership on NJ TRANSIT Bus Routes
Serving the Bergen-Passaic Study Area**

LINE	LINE NAME	October 2008			October 2009			October 2010		
		WEEKDAY	SATURDAY	SUNDAY	WEEKDAY	SATURDAY	SUNDAY	WEEKDAY	SATURDAY	SUNDAY
72	Newark - Paterson	3,749	1,867	1,341	3,756	1,762	1,254	3,636	1,755	1,229
74	Main - Passaic	5,665	3,678	2,398	5,080	3,073	2,238	4,943	3,329	2,041
75	Butler - Newark	164			152			155		
76	Newark - Hackensack	5,365	1,677	906	5,172	1,562	894	5,096	1,570	859
83	Hackensack - Jersey City	3,646	761		3,538	771		3,557	1,026	531
127	Ridgefield - Union City - New York	1,830	518	299	1,714	475	346	1,622		
144	Fair Lawn-Hackensack-New York	1,064			918			850	519	336
145	Fair Lawn - New York	650			626			645		
148	Midland Park-Fair Lawn-New York	308			284			320		
151	Paterson - New York Express	x	x	x	x	x	x	192	13	284
153	Fairview - Fort Lee - New York	x	x	x	x	x	x	112		
154	Fort Lee-Palisades Park-New York	1,780	621		1,711	642		1,713	651	
155	Bogota-Ridgefield Park-New York	473			329			348		
156	Englewood Cliffs-New York	5,161	1,695	880	5,290	1,692	949	5,167	1,724	941
157	Teaneck-Ridgefield Park-New York	317			202			242		
158	Fort Lee-Edgewater-New York	5,933	2,444	1,697	5,639	2,163	1,651	5,848	2,565	1,712
159	Fort Lee-New York	10,158	5,691	4,713	9,805	5,500	4,264	8,787	4,578	4,079
160	Elmwood Park - New York	1,546			1,404			1,455		
161	Paterson - Passaic - New York	7,322	3,252	2,042	6,915	2,899	1,897	6,206	2,997	1,901
162	Maywood - New York	1,218			1,151		45	1,146		
163	Ridgewood - New York	8,548	4,497	2,527	7,791	3,673	1,799	7,475	3,801	1,938
164	Midland Park - New York	2,729	1,467	1,335	3,182	1,618	1,836	3,460	1,746	2,025
165	Westwood - New York	12,894	6,446	4,517	12,504	6,418	4,612	12,474	6,388	4,563
166	Dumont - Tenafly - New York	14,585	7,842	6,163	14,272	7,467	5,857	14,145	7,300	5,647
167	Harrington Park - Dumont - New York	9,151	3,159	2,345	9,229	3,011	2,354	7,712	3,081	2,319

LINE	LINE NAME	October 2008			October 2009			October 2010		
		WEEKDAY	SATURDAY	SUNDAY	WEEKDAY	SATURDAY	SUNDAY	WEEKDAY	SATURDAY	SUNDAY
168	Paramus - New York	3,285	1,761	1,329	3,477	1,717	1,266	3,206	1,648	1,143
171	Paterson - New York	1,662	1,174	637	1,521	967	504	1,276	958	542
175	Ridgewood - New York	1,853	1,252	724	1,741	1,032	551	1,891	1,111	708
177	Harrington Park - New Milford - New York Express	x	x	x	x	x	x	1,452		
178	Hackensack - New York	1,910	1,009	529	1,800	983	457	1,893	922	545
181	Hoboken - New York	593	413	357	554	352	339	510	376	269
182	Hackensack - New York	1,564	623	329	1,575	617	341	1,387	684	300
186	Dumont - New York	2,751	1,017	371	2,640	902	323	2,650	916	351
188	River Road - New York	981	374	264	906	342	243	719	366	254
190	Paterson - New York	11,392	6,070	4,620	10,862	5,650	4,446	10,260	5,703	4,440
191	Willowbrook - Little Falls - New York	1,179	529	519	1,073	536	475	1,502	533	481
192	Clifton - New York	5,597	678	417	5,397	582	346	3,496	561	324
193	Packanack Lake - Willowbrook - New York	1,588		27	1,520			1,385		
194	Newfoundland - New York	2,380	706	736	2,123	646	687	2,136	624	683
195	Willowbrook - Cedar Grove - New York	1,001	634	428	878	629	435	946	630	392
196	Warwick - New York	1,005			918			838	79	
197	Warwick - Wayne - New York Wayne-William Paterson	2,282	1,731	1,400	2,177	1,793	1,368	2,258	1,982	1,332
198	University-NY	343	455	348	382	512	373	440	537	397
199	Clifton - Lyndhurst - New York	x	x	x	x	x	x	1,452		
321	Vince Lombardi Park/Ride - New York	1,073			1,121			1,058		
324	Wayne Rt.23 Transit Center - New York Express	1,791	219	172	1,821	124	117	1,595		
703	Haledon - East Rutherford	4,326	2,841	669	4,158	2,661	572	4,081	2,698	578
704	Paterson - Willowbrook Mall	2,911	1,336	909	2,575	1,146	734	2,630	1,217	805
712	Hackensack - Willowbrook Mall	4,956	2,407	1,016	4,692	2,024	1,047	4,602	1,936	812
770	Paterson - Hackensack	2,169	1,248	518	2,029	1,093	540	1,977	1,106	501

2.1.4. NJ TRANSIT Contract Bus Services

Community Coach is a subcontractor to NJ TRANSIT for the inter/intra county services listed in Table 5. Contract Bus Services use NJ TRANSIT vehicle identification but are operated by an independent service provider. Ridership for the contracted routes is summarized on Table 6.

Table 5: NJT Contracted Routes Routes Serving Bergen and Passaic County Local Contract

Line	Description	Line	Description
702	Paterson - Elmwood Park	744	Passaic – Wayne
705	Passaic - Willowbrook Mall	746	Ridgewood – Paterson
707	Paterson - Saddle Brook	748	Paterson-Wayne-Willowbrook Mall
709	Bloomfield – Paramus	758	Passaic - Paramus Park
722	Paterson - Paramus Park	772	Dumont -Hackensack-Secaucus
742	Paterson – Greystone (eliminated 5/10)	780	Passaic – Englewood
751	North Bergen – Edgewater-Paramus	755	Edgewater – Paramus
752	Hackensack – Ridgewood	756	Fort Lee – Paramus
753	New Milford – Paramus	762	Hackensack –New Milford – Paramus

Table 6: NJT Contracted Bus Routes - Ridership

Route	Line Name	Day of Week	Approximate Daily Ridership		
			Inbound	Outbound	Total
702	Paterson - Elmwood Park	Weekday	880	840	1720
		Saturday	300	300	600
705	Passaic - Willowbrook Mall	Weekday	880	760	1640
		Saturday	330	300	630
707	Paterson - Saddle Brook	Weekday	680	680	1360
		Saturday	360	360	720
709	Bloomfield - Paramus	Weekday	1160	1160	2320
		Saturday	690	630	1320
722	Paterson - Paramus Park	Weekday	400	400	800
		Saturday	180	180	360
742	Paterson - Greystone	no data available			
744	Passaic - Wayne	Weekday	1040	1040	2080
		Saturday	390	390	780
746	Ridgewood - Paterson	Weekday	920	920	1840
		Saturday	420	420	840
748	Paterson-Wayne-Willowbrook Mall	Weekday	720	720	1440
		Saturday	330	300	630

Table 6: NJT Contracted Bus Routes - Ridership, continued

751	North Bergen-Edgewater-Paramus	no data available			
752	Hackensack - Ridgewood	no data available			
753	New Milford - Paramus	no data available			
755	Edgewater - Paramus	no data available			
756	Fort Lee - Paramus	Weekday	810	750	1560
		Saturday			0
758	Passaic - Paramus Park	Weekday	560	600	1160
		Saturday	330	360	690
762	Hackensack-New Milford-Paramus	no data available			
772	Dumont-Hackensack-Secaucus	no data available			
780	Passaic - Englewood	Weekday	300	300	600
		Saturday	180	180	360

2.2. Coach USA Services

Rockland Coach/ Red & Tan, and Short Line are all services provided by Coach USA. The services are addressed separately by Coach USA and the vehicles are branded by line, i.e. Short Line buses say “Short Line” on them, in addition to Coach USA. As a result, each Coach USA service is listed separately in the tables below².

Table 7: Coach USA - Rockland Coaches Red & Tan) Bus Routes Serving Bergen County

Line	Description	Line	Description
9A-9AT	Stoney Point-Englewood-New York	45,45E	Mt. Ivy - New York
11AT	Stoney Point-New City-New York	46	Nanuet- New York Express
11C	Spring Valley-New York (GWBBS)	47*	Nanuet- New York
14,14K, 14ET	Harrington Park - New York	48*	Stoney Point- New York Express
20, 20T	West Nyack - Norwood - New York	49	West Haverstraw- New York
21T	New Milford - New York	84, 4L	Rockleigh-New York (GWBBS)
25	Englewood - New York		

47 or 48– was discontinued Spring 2010

² Coach USA-Community Coach 77 and DeCamp Bus Lines 32,33, 44, 66 & 99 also serve study area but were not examined in this effort.

Note that on the following table, the Rockland Coach routes referenced in Table 7 above are represented by a four-digit code. For example, the route series beginning with 9 (9A-9AT) is represented by 9000, 9001, 9002, 9003, etc., as follows:

- 9000 = 9AT /9T Stony Point to PA Terminal
- 9001 = 9AT / 9T New City to PA Terminal
- 9002 = 9T West Nyack to PA Terminal
- 9003 = 9AT PA Terminal & GW Bridge to New City
- 9004 = 9X West Nyack to PA Terminal
- 9010 = 9A Tompkins Cove to GW Bridge
- 9011 = 9A Stony Point to GW Bridge
- 1111 = 11C to GW Bridge
- 2510 = Was the 25 Route. Eliminated
- 4503 = 45E Eliminated
- 4504 = 45X Added
- 4547 = is the combination 45&47 route. There is only one. It is the 10:00am from Mt. Ivy. to Montvale Park/Ride
- 1145 = Does an 11A to Spring Valley and then covers the 45 route from Spring Valley to Mt. Ivy.

Table 8: Coach USA – Rockland Coaches Ridership (April 2011)

Bus Route	Manhattan Terminal	NYC-NJ	NJ-NJ	NJ-NY	NY-NY	NYC-NY	TOTAL				
11A	PABT	6634	935	691	806	658	16724				
1101	Not provided	7093	377	885	695	460	16510				
11A and 25	GW BBS	8609	494	036	809	183	16131				
11C and 45	PABT	353	36	12	21	311	733				
14 PA	BT	9575	459				10034				
14 GW	BBS	1416	129				1545				
20	PABT	3185	79	875	1	396	2	975	6	198	52301
2100 PA	BT	5857	223				6080				
45,45/47	PABT	19348	1	579	2196	1	9458	4	1582		
46	PABT	1746	2	1	3	1	78	0	1867		
47	PABT	13380	18	204	2	219	6	217	22038		
49	PAB T					1590	1	5109	1	6699	
8410, 8411	Not provided	9472	3	951					13423		
9AT, 9T, 9X	Not provided	5997	6	58	9	89	5537	11617	24798		
9A	Not provided	4630	7	07	3	80	3146	3887	12750		
TOTAL		125967	22884	6175	25011	73178	253215				

Table 9: Coach USA – Short Line Bus Routes Serving Bergen County

Line	Description	Line	Description
17SF	Suffern - New York	17US	Paddington Square- New York
17RG	Franklin Tpke.-Ramsey-New York	208	Mahwah-Oakland-New York
17WY	Ramapo College- New York		

Table 10: Short Line Bus Ridership
To be inserted upon receipt from Short Line

2.3. Meadowlink-EZ Ride

Meadowlink provides a shuttle service branded as “EZ Ride.” The EZ Ride shuttle service provides “last mile” type service between bus and rail terminals and major employment centers in the Meadowlands region. Table 11 lists the EZ Ride services in the study area and Table 12 summarizes ridership in terms of average monthly ridership per year for each shuttle service.

Table 11: Meadowlink – operating as EZ Ride Shuttle Service

Route Name	Route	Notes
Meadowlands Shuttle	Rutherford train station to Meadows Office Complex.	Provided by the Borough of Rutherford. Vehicles do not have EZ Rider logo. Weekday-Peak Hours only - Free
Lyndhurst Corporate Shuttle	Lyndhurst Corporate Park to Kingsland and Rutherford train stations.	Weekday-Peak Hours only - Free service.
Secaucus-Carlstadt/Moonachie Shuttle	Secaucus Junction Station to Carlstadt-Moonachie.	Weekday -Peak hour service only. Free
Harmon Cove Shuttle	Secaucus Junction Station to Harmon Cove	Weekday – Peak Hours only. Free
Harmon Meadow Shuttle/ Express	Secaucus Junction Station to Harmon Meadow.	Weekday- Peak Hours only. Free.
Kearny Commuter Shuttle	Harrison PATH Station to Ridge Road and Kearny Avenue to North Arlington.	Weekday – Peak Hours only \$1.50 fare
Wayne-Fairfield/ West Caldwell Shuttle	Willowbrook Mall to businsses along the Route 46 corridor.	Weekday – Peak Hours only . Free.

Table 12: Meadowlink – operating as EZ Ride Shuttle Service Ridership

Shuttle	Ridership			Comments
	2008	2009	2010	
Meadowlands Shuttle	69	73	64	
Harmon Meadow Shuttle	225	210	229	
Wayne-Fairfield Shuttle	66	78	89	Started on 3-11-08
Harmon Cove Shuttle	133	139	156	Started on 5-19-08
Lyndhurst Shuttle	9	53	85	Started on 11-5-08
Harmon Meadow Express	x	59	55	Started on 1-2-09
Secaucus-Carlstadt/Moonachie Shuttle	x	x	43	Started on 6-28-10
Kearny Commuter Shuttle	x	x	23	Started on 12-6-10

EZ Ride Shuttle service has increasingly been used by the aging populations in the wealthier, northern municipalities in northern Bergen County, but senior shuttle service does not fit neatly into the typical commuter shuttle service plan typically offered by EZ Ride. The program is actively investigating options for the future to expand service to northern communities whose residents need mobility assistance, but do not seek the same destinations as the commuting shuttle riders.

2.4. Jitney Services

Spanish Transportation is a private operator that serves parts of Bergen and Passaic counties. Spanish Transportation does not coordinate with NJ TRANSIT or the other private or TMA services in the study area. As a result, Spanish Transportation jitney vans are often in conflict with NJ TRANSIT buses at bus stops, which are used by both NJ TRANSIT and unofficially by Spanish Transportation in selected corridors such as along NJ 4 and Main Street which crosses from Passaic into Bergen County. Spanish Transportation offers two fixed shuttle route services:

- Paterson to the Port Authority Bus Terminal in Midtown Manhattan – The route starts in Paterson at Broadway via Main Street to Passaic and then continues east along Route 3 to the Port Authority Bus Terminal in Midtown. Arrivals and departures are from Gate 56.

Scheduled Service:

Monday – Friday	4:00 am – 6:00 am every 7 minutes
	6:00 am – 8:00 pm every 5 minutes
	8:00 pm – 12:00 am every 10 minutes
Weekends and Holidays	5:00 am – 12:00 am every 7 minutes

- Paterson to the George Washington Bus Station (at 178th Street and Broadway) - The route covers Broadway in Paterson and eastbound along Route 4 to the George Washington Bridge Bus Station (GWBBS) at 178th Street and Broadway in Manhattan. Arrivals at GWBBS Gate 30 Upper Level with Departures at Gates 5 & 6 Lower Level.

Scheduled Service:

Monday – Friday	4:00 am – 6:00 am every 10 minutes
	6:00 am – 8:00 pm every 5 minutes
	8:00 pm – 10:00 pm every 10 minutes
Weekends and Holidays	5:00 am – 12:00 am every 7 minutes

In addition to Spanish Transportation, other jitney services emanate from Hudson County along Anderson Avenue serving Fairview, Cliffside Park & Fort Lee; along Broad Avenue serving Fairview, Ridgefield and Palisades Park; and along River Road serving Edgewater and Fort Lee, most also serving the GWB Bus Station. In addition a jitney service operating between Englewood and New York City has been identified. These providers were not reachable for service schedules, timetables, or routes.

3. Major Trip Generators

The study area represents one of the older, most intensively developed regions of the state. Its proximity to New York City has been the impetus for industrial, commercial, and residential development spanning more than 200 years. As a result, the study area is densely developed with numerous trip generating uses. To simplify the analysis and still provide useful insight into the travel patterns and potential transit needs of the study area, broad categories of major trip generators were identified. When interviews with facility operators and service providers were possible, detailed information is provided. This is the case primarily with uses that operate under a local administrative authority, such as hospitals, schools, and shopping malls. Other uses, such as industrial uses and big box retail use a qualitative approach to describe the influence of the use on mobility and transit.

The study team reached out to the service providers, owners, or operators of the major trip generators to obtain specific information on their perception of existing transit service and existing and anticipated transit needs. The outcomes of these meetings are documented in Technical Memorandum 3, which addresses the public outreach effort.

3.1.Hospitals and Health Care Facilities

The study area contains a significant number of major health care facilities including hospitals and health care centers. Outside of shopping malls, these facilities may be the largest employers and most significant trip generators in each county. The number of employees at a facility ranges from 600 to 8,000 people and does not include physicians and volunteers and visitors.

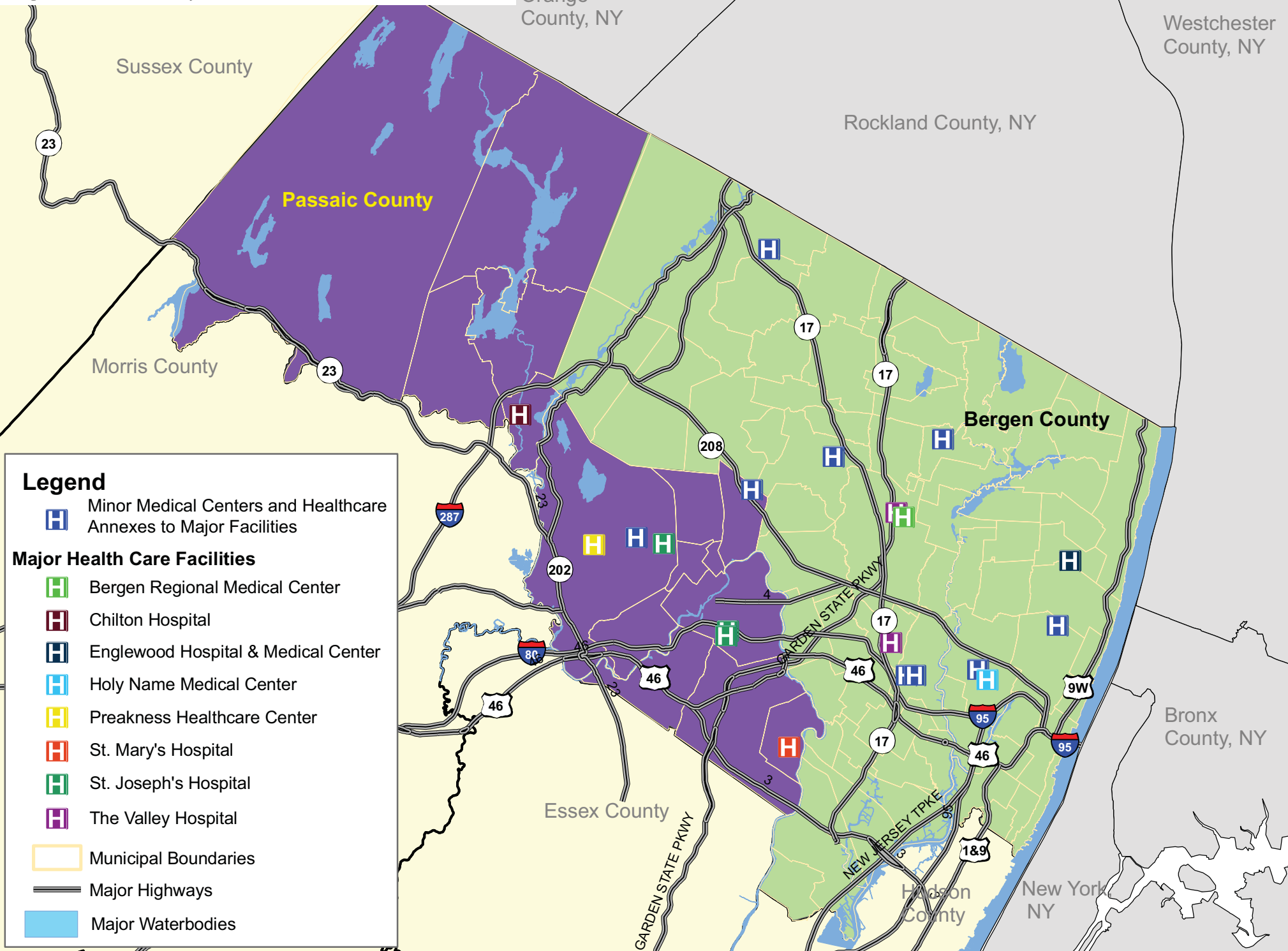
The health care facilities include 10 acute and/or long-term care institutions, summarized on Table 13, below. Some institutions were not reachable or did not provide staffing data when requested by the study team. Some institutions operate multiple locations under the same umbrella organization and therefore appear on Figure 10 in several locations.

The study area also contains numerous outpatient clinics, rehabilitation centers, and medical parks that were not specifically analyzed. The appendix contains a map indicating the location of these facilities. While these facilities are employers and providers of community services, they do not draw significant numbers of either employees or patients on a daily basis as compared to the major facilities detailed in Table 13 and were therefore not included in the analysis.

Table 13: Health Care Facilities

Facility	Town	Employees	Physicians	Volunteers
Hackensack University Medical Center	Hackensack	8,000	1,600	1,500
Holy Name Medical Center	Teaneck	3,800*	400	450
Englewood Hospital and Medical Center	Englewood	2,800	850	800
The Valley Hospital	Ridgewood	4,300	1,000	1,700
Bergen Regional Medical Center	Paramus	Not available	Not available	Not available
St. Joseph's Regional Hospital	Paterson	Not available	900	Not available
St. Joseph's Hospital – Wayne	Wayne	Not available	Not available	Not available
St. Mary's Hospital	Passaic	Not available	Not available	Not available
Chilton Hospital	Pequannock	1,300	500	Not available
Preakness Healthcare Center	Wayne	600	Not available	Not available

Figure 10: Major Health Care Facilities



Legend

Minor Medical Centers and Healthcare Annexes to Major Facilities

Major Health Care Facilities

- Bergen Regional Medical Center
- Chilton Hospital
- Englewood Hospital & Medical Center
- Holy Name Medical Center
- Preakness Healthcare Center
- St. Mary's Hospital
- St. Joseph's Hospital
- The Valley Hospital

- Municipal Boundaries
- Major Highways
- Major Waterbodies

While not within the study area, health care facilities in neighboring Hudson County have an influence on transit service within the study area. Residents of Bergen County communities near the Hudson County border, such as Lodi, Lyndhurst, and East Rutherford, are closer to these facilities than to facilities within Bergen County and may use transit to reach the facilities for care or for work. In particular, the facilities with the greatest likely impact on study area transit are the Meadowlands Hospital in Secaucus and the Palisades Medical Center in North Bergen. The former Pascack Valley Hospital site in Westwood may also become a factor soon, as the facility is being converted to a medical office park for diagnostic testing and outpatient services.

3.2. Educational Facilities

Six colleges and universities are within the study area, with a combined student enrollment exceeding 45,000 students. As with health care facilities, not all colleges & universities provided data requested by the study team, and as a consequence, the total enrollment figure is likely greater. Although William Paterson University, Ramapo College, Fairleigh Dickinson University-Teaneck and Montclair State University provide on-campus housing, the majority of students attending the colleges and universities in the study area commute to class. Table 14 summarizes the institutions and enrollment/faculty population. Figure 11 illustrates the locations of these facilities.

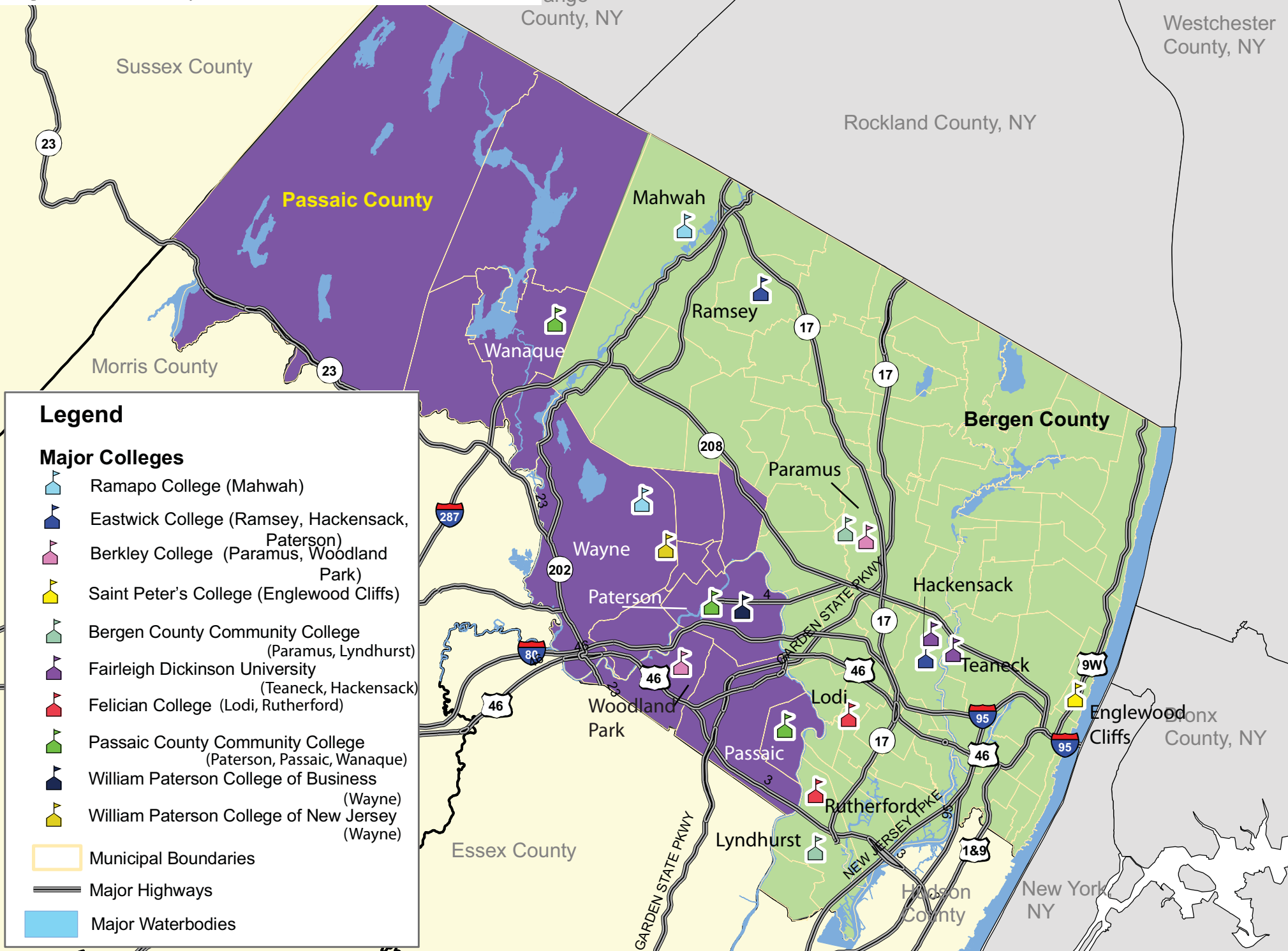
Table 14: Educational Facilities

Institution	Town	Students	Faculty	
			Full Time	Part Time
Eastwick College	Ramsey/Hackensack/ Paterson		218	n/p
William Paterson University	Wayne	10,000	371 ¹	n/p
Fairleigh Dickinson University	Teaneck/Hackensack			n/p
Felician College	Lodi/Rutherford	1,991	81	240
Ramapo College of NJ	Mahwah	5,660	n/p	n/p
Passaic County Community College	Paterson/Passaic/ /Wanaque	7,000	n/p	n/p
Bergen Community College	Paramus Lyndhurst	17,000	n/p	n/p
Berkeley College	Paramus/ Woodland Park	n/p	n/p	n/p
Saint Peter's College	Englewood Cliffs/ Jersey City (not in study area)	3,000	115	n/p

¹ 1112 full time employees including 371 faculty. "n/p" = "not provided" by the administration

The study area also contains public and private primary and secondary schools (elementary schools, high schools, and technical/trade schools). The appendix contains mapping illustrating the location of these facilities. The majority of these facilities provide municipal busing, although students at a few urban public & private and suburban public and parochial schools use NJ TRANSIT to travel to and from school. These numbers are not significant in terms of the scope of this study were not specifically analyzed.

Figure 11: Major Educational Facilities



3.3. Retail and Entertainment Centers

Several large regional shopping centers are located within the study area. In particular, Paramus, in Bergen County, is home to three major centers and several big box commercial centers totaling approximately 4.2 million square feet of gross leasable area. Retail centers represent significant employment centers and trip generators for their service area; however, the hours of operation of retail centers extend beyond those assumed for the typical commuter population. Opening shifts may begin between 7am and 10am, and closing shifts, particularly in shopping centers with movie theaters and restaurants, may extend past 10pm to midnight and sometimes later. Malls with large department stores often include an overnight stockroom shift. Employees are not the only potential ridership population requiring extended hours—patrons of the mall facilities who use the movie theaters and restaurants also need extended service hours. Table 15 lists the retail facilities in the study area. Figure 12 illustrates their location.

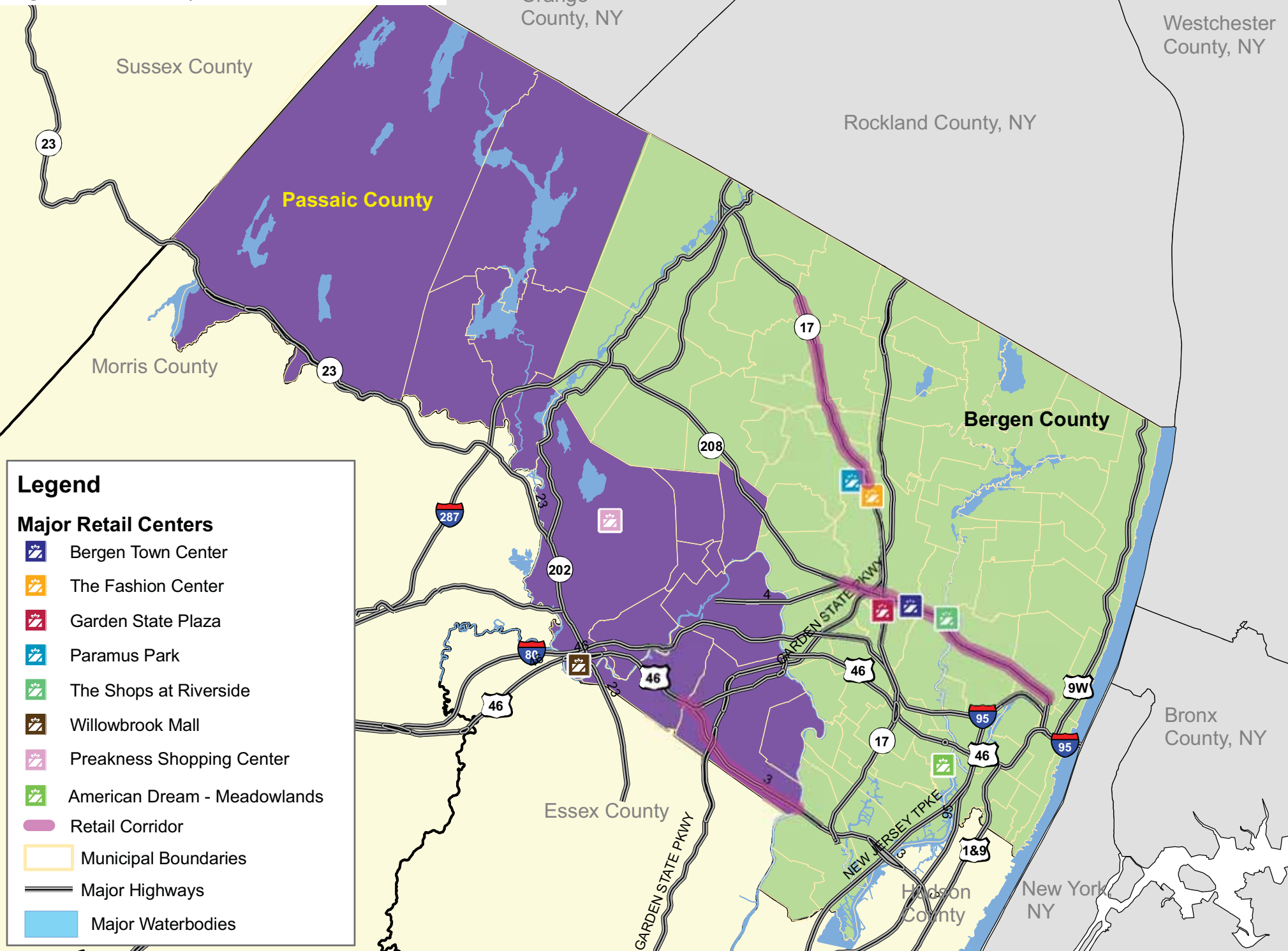
Table 15: Retail and Entertainment Centers

Retail Center	Location
Garden State Plaza	Paramus
Paramus Park	Paramus
Bergen Town Center	Paramus
Shops at Riverside	North Hackensack
The Fashion Center	Paramus
Willowbrook Mall/ Wayne Towne Center	Wayne
Preakness Shopping Center	Wayne
American Dream-Meadowlands – opening late 2013	East Rutherford

The study area also contains numerous strip malls and big-box retail centers; a list of major department-store big box retail is found in the appendix. They are generally located along the New Jersey Route 4 corridor, New Jersey Route 17 corridor north of its intersection with Interstate 80, and Route 3 in Clifton. These are shown as generalized areas on Figure 12. While these shopping destinations see a notable amount of business, particularly on weekends, their role as a trip generator for the purposes of this study is less significant than the major retail centers described above. In addition, some of the downtowns in the study area, particularly Ridgewood, Paterson, and Passaic have active commercial areas. Intracounty services typically serve these locations.

It is important to note that Bergen County retail facilities abide by Blue Laws, which restrict retail and non-essential commercial operations to Monday through Saturday business hours, requiring businesses to close on Sundays. Only grocery stores, pharmacies, and similar necessary uses are permitted to operate on Sunday. As a result, the Garden State Plaza, Paramus Park, Bergen Town Center, Shops at Riverside, and the Fashion Center are essentially closed on Sunday, along with other big box retail centers and strip malls. Restaurants and movie theaters located at these facilities are permitted to operate on Sundays, though, so while the majority of transit trips to the malls in Bergen County are significantly reduced on Sunday, the span of service required by those working in or patronizing the restaurants and theaters is the same or similar to that of a weekday or Saturday.

Figure 12: Major Retail Centers



3.4. Industrial Parks and Office Parks

Industrial uses are located throughout the study area, typically in clusters. Older industrial areas composed of heavy industry and manufacturing are typically found near the major rivers (Passaic River and Hackensack River) in Paterson, Passaic, and Clifton in Passaic County, and Elmwood Park, Garfield, Hackensack, Carlstadt, and Moonachie in Bergen County. Other industrial uses are found in proximity to major highways (Route 17, 208, 287) and near active or inactive freight rail lines (i.e.: Northvale and Norwood along the Northern Branch in Bergen County).

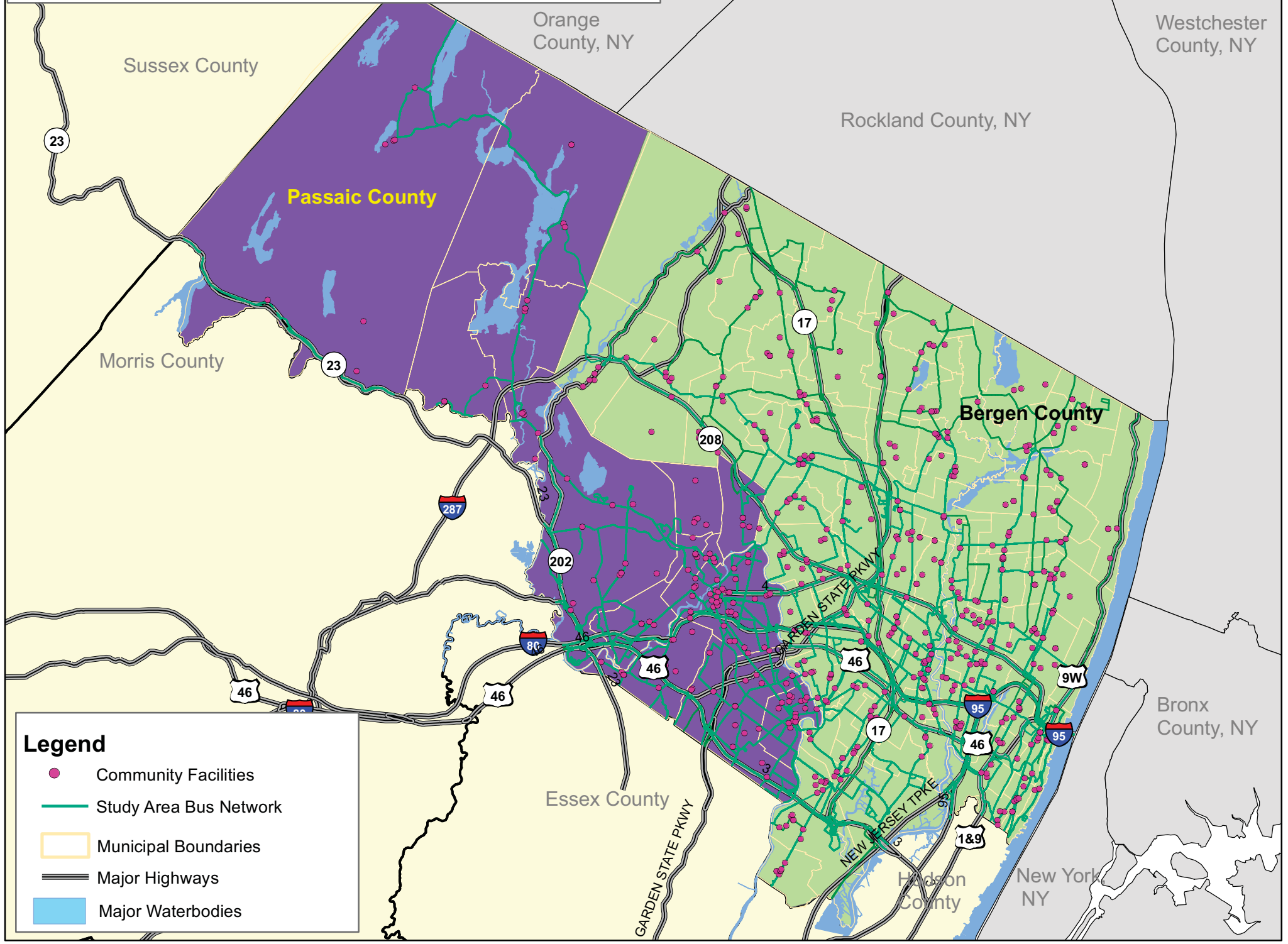
While bus service appears to be available to these facilities (Figure 13), additional investigation is required to determine whether the span of service is sufficient to serve the workforce employed in these facilities. It is likely that additional extended hours, up to and including the beginning of a traditional third shift and reverse service for the end of 2nd shifts could be needed in some areas to cover the operating hours of the facilities.

Several large office park locations are found in Woodcliff Lake and Mahwah in Bergen County, and in Wayne, Passaic County. These facilities employ a large workforce who work a typical commuter day. Some operations, particularly those in Woodcliff Lake, have expressed an interest in shuttle service from local bus stops and rail stations to their facility to reduce auto-dependence of their workforce.

3.5. County Social Services and Facilities

County social services and facilities include welfare offices, regional social security offices, libraries, adult daycare centers, job training centers, courts, and application/permit processing locations. Also included are facilities that may provide social services, such as YMCAs and houses of worship. As Figure 14 illustrates, most of these facilities are located along existing NJ TRANSIT bus routes. Most of these facilities operate during the typical business day, although some facilities may have weekend hours or occasional evening hours. Regardless, for the majority of users, bus service appears to provide service to many of these facilities.

Figure 14 - County and Community Facilities



4. Analysis of 2000 Travel Patterns

4.1. Journey to Work (JTW) Data and Worker Population

The following discussion provides background information on the demographic landscape of the Bergen County-Passaic County study area. The majority of the analysis focuses on journey to work (JTW) data, which was obtained from the Census Transportation Planning Package (CTPP), which itself is derived from the 2000 decennial census.

It is recognized that data derived from the 2000 census is, at this point, 10 years old and was published prior to the loss of businesses from Lower Manhattan as a result of the terrorist attacks on September 11, 2001. In the ideal scenario, American Community Survey (ACS) data, which is collected and published in three- to seven-year intervals, would be used; however, ACS data is not available for all municipalities nationwide. The Census Bureau collects and publishes ACS data on a schedule determined by population:

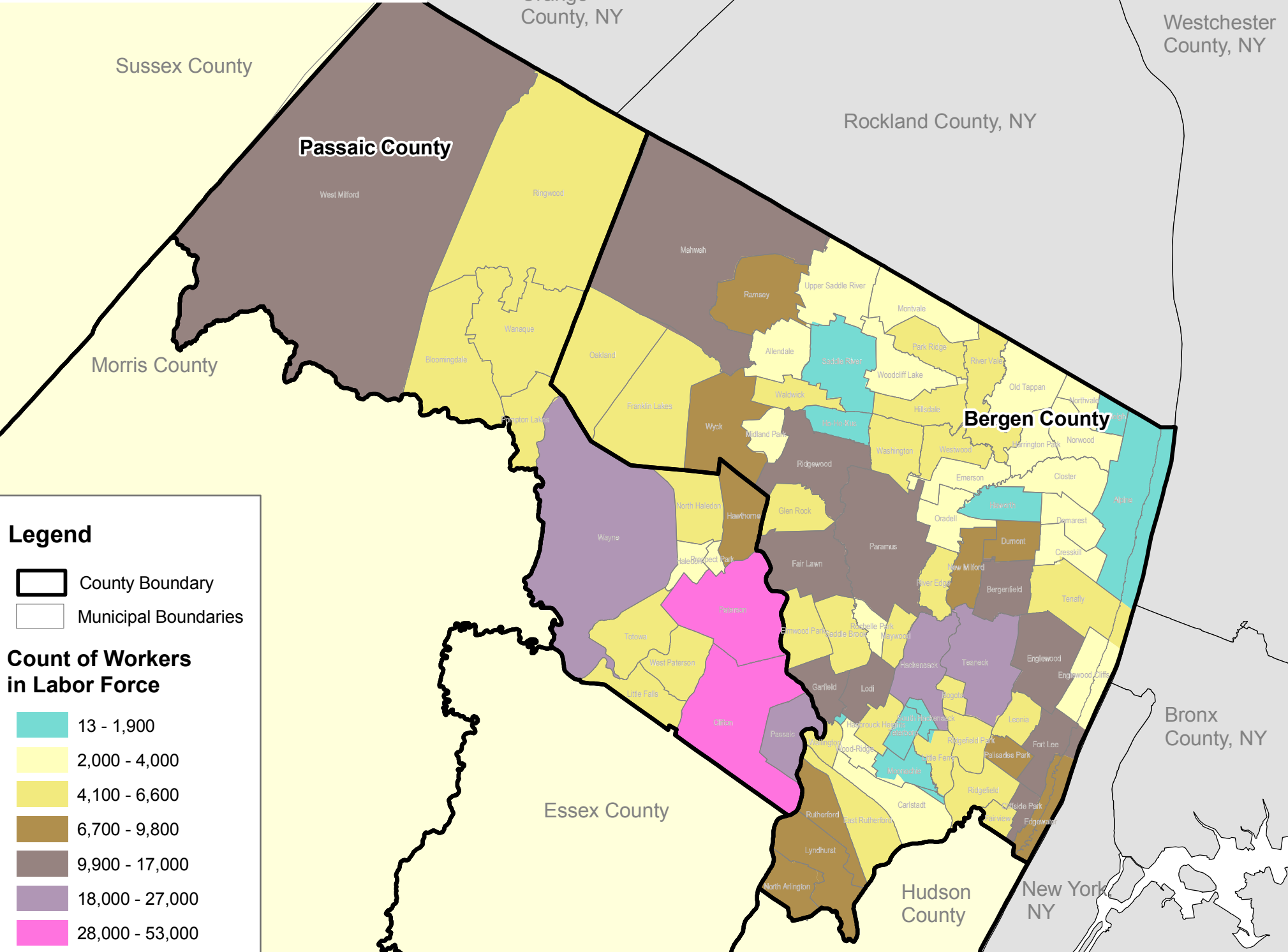
- 2006 updates are available for all places with a population of 65,000 or greater
- 2005 to 2007 updates are available for all places with a population of 20,000 or greater
- Jurisdictions with populations less than 20,000 are not surveyed as part of the ACS

The study area is composed of 86 municipalities, but of these, only 17 support a population greater than 20,000 as of the 2000 census. After discussions with the county planning staffs, it was determined that the most accurate and reliable source of complete JTW data for the study area was the CTPP. As this data would be supplemented by additional field studies and surveys, deficiencies in the 2000 data would be compensated by the new data.

A person-trips analysis was conducted as part of this study to identify and confirm the movement of the population within the study area and between the study area and adjacent areas (discussed in more detail in Section 4.2). Additionally, in 2009 and 2010 a bus survey was conducted to substantiate JTW data and origin/destination patterns. The survey included both a ridecheck component and a passenger survey. The data, found in the appendix, supported both the 2000 census JTW data and assumptions made regarding the change in commuting patterns following September 11, 2001, when many businesses relocated from Lower Manhattan to locations in eastern New Jersey as a result of the loss of the World Trade Center complex. The data was particularly useful in the analysis of midday service, which is typically not the focus of most traditional transit surveys (Section 4.3).

Figures 15 and 16 illustrate the worker population within Bergen and Passaic County.

Figure 15: Worker Population



Sussex County

Orange County, NY

Westchester County, NY

Passaic County

Rockland County, NY

Morris County

Bergen County

Legend

- County Boundary
- Municipal Boundaries

Count of Workers in Labor Force

- 13 - 1,900
- 2,000 - 4,000
- 4,100 - 6,600
- 6,700 - 9,800
- 9,900 - 17,000
- 18,000 - 27,000
- 28,000 - 53,000

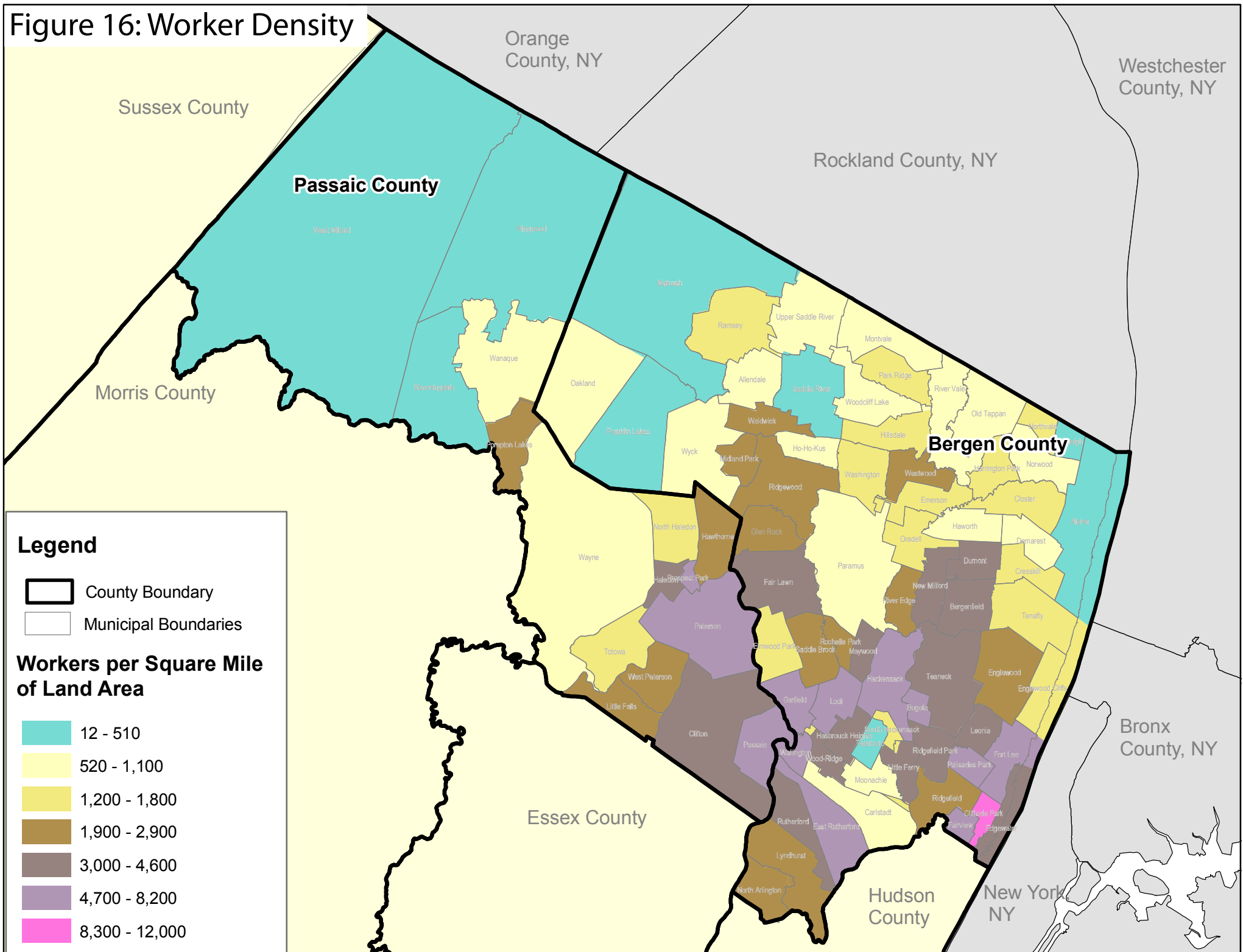
Essex County

Hudson County

Bronx County, NY

New York NY

Figure 16: Worker Density



4.2. Commuting Patterns

4.2.1. General Commuting Patterns

While Bergen County and Passaic County are geographic neighbors, they are quite different in their commuting patterns, as illustrated by the following graphs. Figures 17 and 18 illustrate the general “universe” within which residents of Bergen County and Passaic County live and work. As the figures indicate, Bergen County workers are more likely to travel outside of New Jersey for work, while the vast majority of Passaic County workers stay within the state.

Figures 19 and 20 expand on these findings. Both figures provide additional detail regarding where the commuters go within the “New Jersey” and “Non-New Jersey” workplace categories shown in Figures 17 and 18. Figure 19 illustrates Bergen County’s general commuting patterns. Residents of Bergen County tend to stay in Bergen County (58%) or travel to workplace in New York City or Long Island (18%). Bergen County and New York City compose nearly three-quarters of all JTW trips from Bergen County residences to places of work. The remaining trips are made between home and locations in Hudson County (6%), Passaic County (6%), and Essex County (4%). Journey to work trips to other New Jersey Counties and outside New Jersey and New York City represent 2% or less per destination.

Passaic County’s JTW patterns are notably different from those in Bergen County, and as may be expected from Figure 17, are focused more within New Jersey than between Passaic County and interstate locations. Passaic County residents tend to stay within Passaic County (46%) or work in Bergen County (26%). The second tier of workplace destinations is located in Essex County (8%) and Morris County (7%). Journey to Work trips to New York City account for less than 5% of all trips from Passaic County residences to work.

Figures 21 and 22 focus on New Jersey workplace locations of commuters from Bergen and Passaic Counties. As noted in figures 19 and 20, more commuters from Bergen County commute into New York (state and City) than commuters from Passaic County. Figures 21 and 22 are based on 100% of intra-state commuters; therefore, the total number of New Jersey workplace commuters illustrated in Figures 21 and 22 represents a smaller number of individuals from Bergen County than from Passaic County.

Figure 17: Workplaces for Bergen County Residents

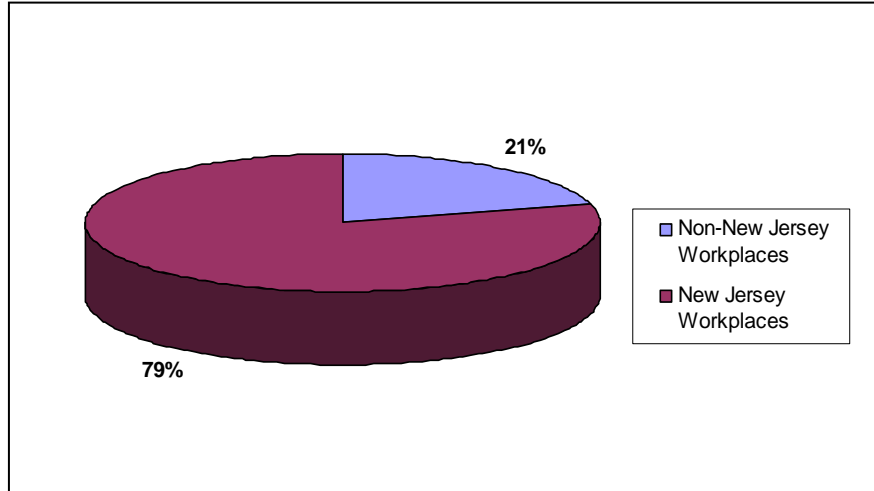


Figure 18: Workplaces for Passaic County Residents

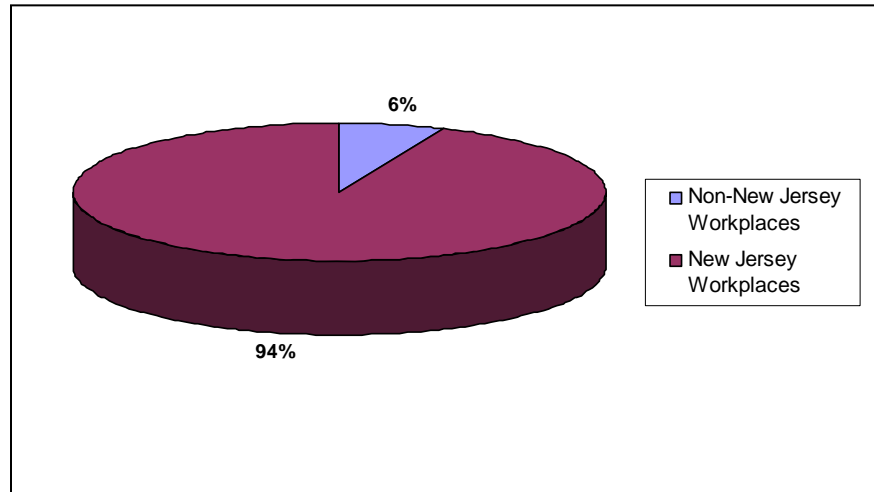


Figure 19: Workplace Location Detail for Bergen County Residents

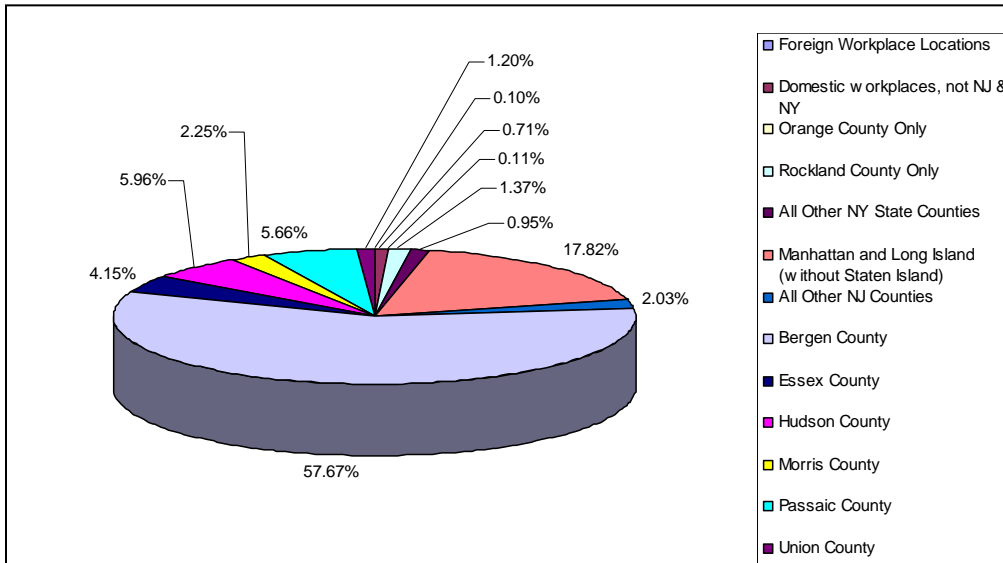


Figure 20: Workplace Location Detail for Passaic County Residents

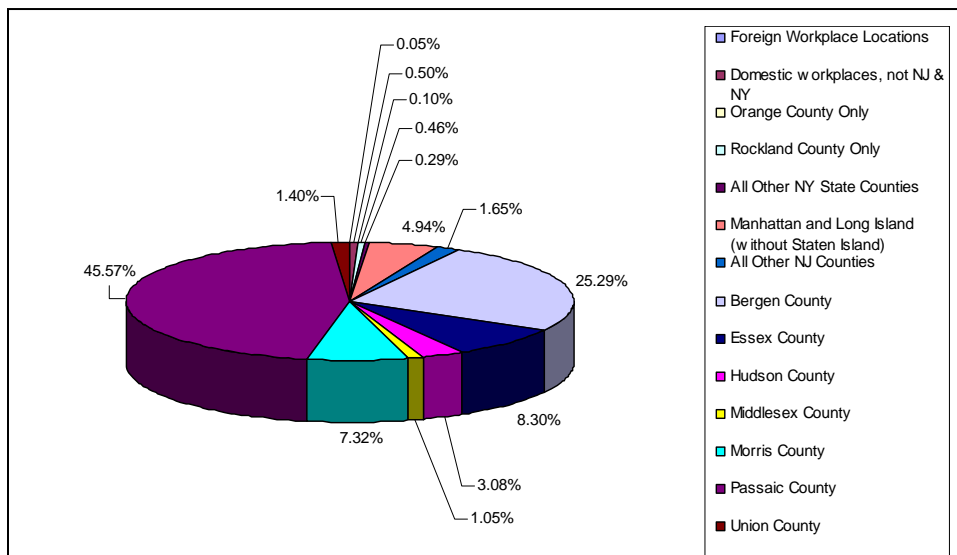


Figure 21: Intra-State Workplace Location Detail for Bergen County Residents

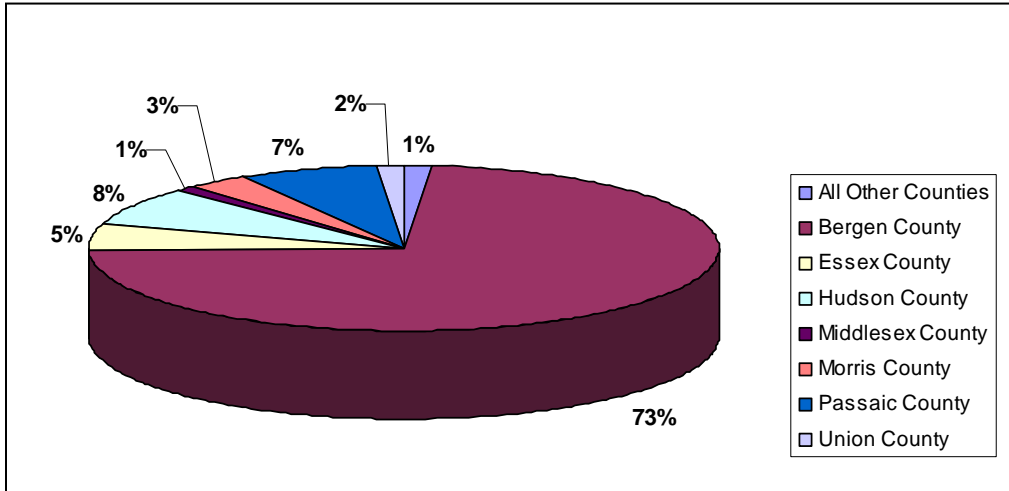
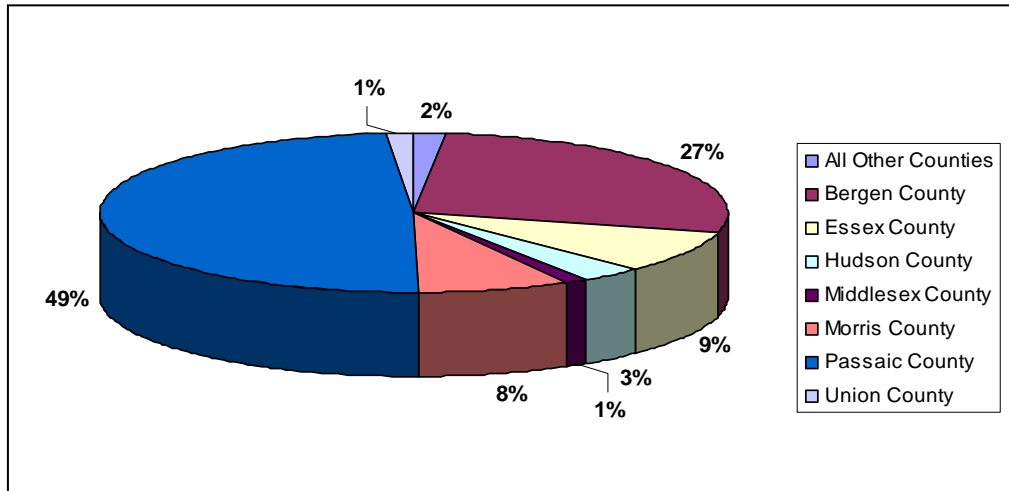


Figure 22: Intra-State Workplace Location Detail for Passaic County Residents



4.2.2. Influence of New York City

The study area, particularly the Bergen County portion, is within New York City’s market area and, as illustrated above, serves as the employment destination for a significant portion of the study area’s residents. New York City provides a wide range of employment types, from food service to financial services and health care. Travel into Manhattan by personal vehicle is expensive and time-consuming, as the major Hudson River crossings are subject to heavy traffic delays during the peak commuting hours and all bridges and tunnels are tolled. In addition, the availability and cost of parking in Manhattan complicate single-occupancy vehicle trips. As a

consequence, the influence of New York City must be taken into account when analyzing journey to work data pertaining to travel mode.

Previously, auto availability and transit-dependence was discussed in terms of household income. Generally, lower income households are more likely to be without a personal automobile and as a result are transit dependent. The resulting journey to work modal split data would be expected to show municipalities with lower median incomes to have more transit users than more affluent communities.

This relationship between affluence and transit dependence is proven true for Passaic County, whose workers are less likely to commute to New York City. Workers who reside within Passaic County's middle-class and more affluent communities are less likely to use transit than those in less affluent municipalities. In the charts below, Totowa and Ringwood are representative of communities with household incomes greater than the county median, and Paterson and Passaic are representative of municipalities with incomes below the county median. Workers who reside in the lower income communities are more likely to use transit, between 17% and 29%, than those who reside in the more affluent communities (3%).

Similar conclusions cannot be drawn about Bergen County. In the following charts, Cresskill and Alpine are representative of more affluent communities and Fairview and Moonachie are representative of lower-income communities. The percentage of transit use in Cresskill is nearly equal to that of commuters from Paterson in Passaic County, while the percentage of transit users from Moonachie is less than Cresskill and almost equal to the percentage of transit commuters from Alpine, one of the wealthiest communities in New Jersey. The diversity of jobs offered in New York City is likely one of the most significant factors behind these statistics.

As a result, using census JTW data for drawing conclusions regarding trends in commuting and potential transit needs in the study can result in misleading assumptions as the study area represents two commuter communities bound for two distinct employment market areas. Passaic County commuters generally work within Passaic County or adjacent counties and may or may not use transit, depending on their income level and availability of a personal automobile. Few workers from Passaic County commute to New York City. Commuters from Bergen County, however, work mostly within Bergen County or they commute to New York City. The result is that the commuter population from Bergen County is more likely to use the interstate/NYC-routes offered from NJ TRANSIT, despite what income statistics would indicate.

The data presented in the charts agrees with the person-trip analysis performed for the study. The data, found in Table 16 shows that more commuters from Bergen County travel to New York City and New York State than commuters from Passaic County. Passaic County commuters, conversely, are shown as having greater intra-county movement

Figure 23: Income vs. Transit Ridership for Passaic County

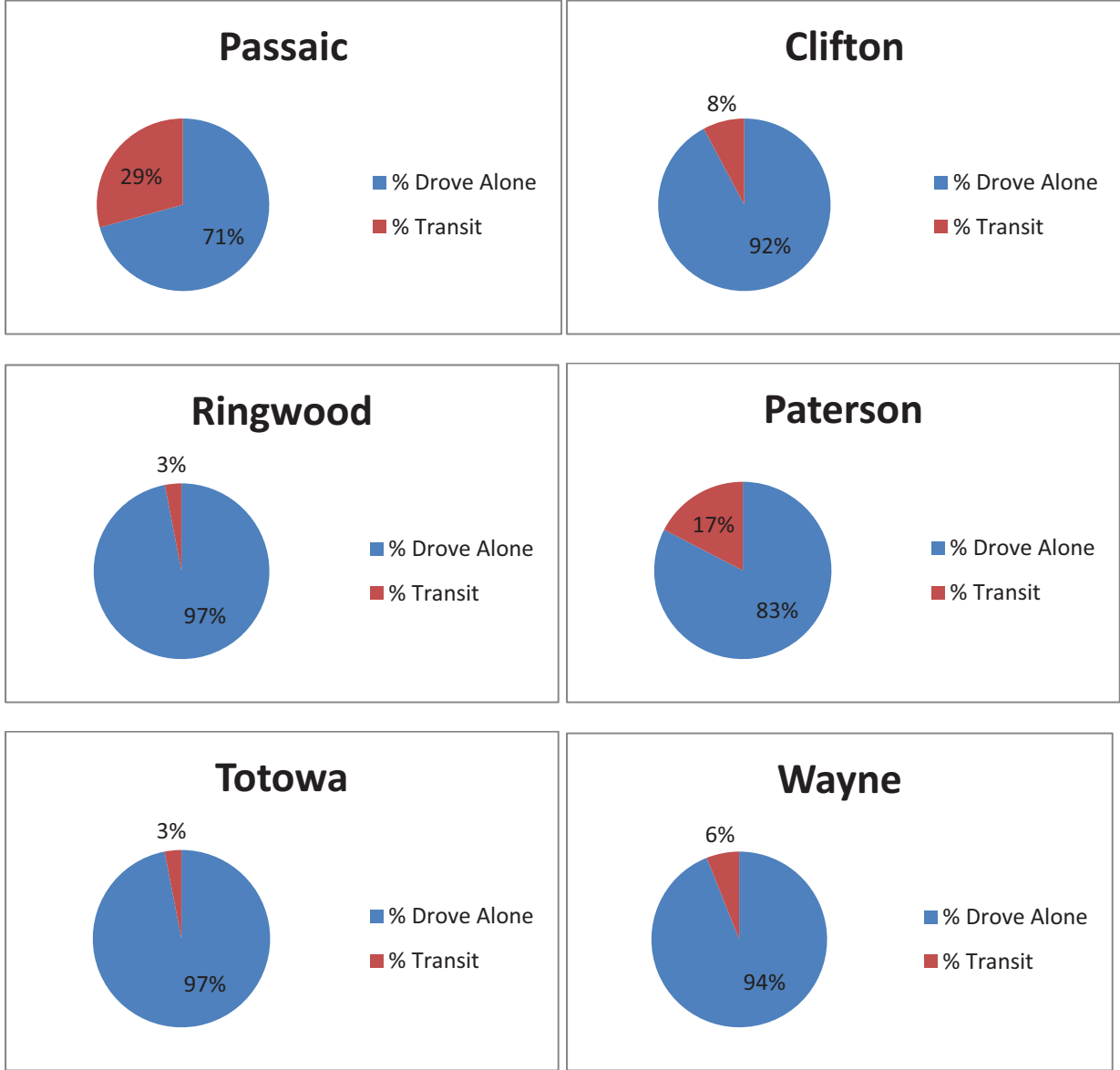


Figure 24: Income vs. Transit Ridership for Bergen County

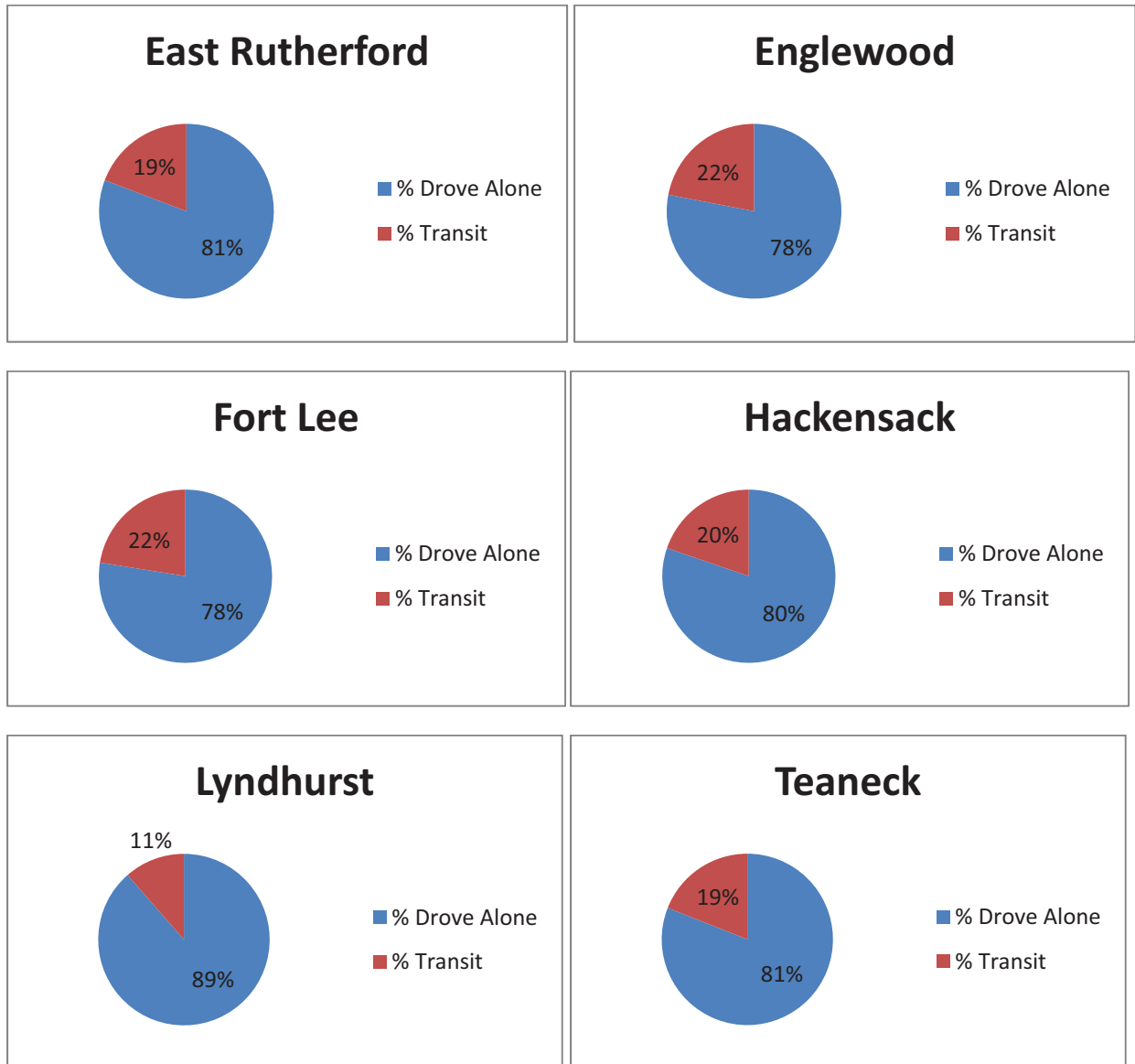


Table 16: Person-Trips

ORIGIN \ DESTINATION		Bergen County						Passaic County				Manhattan						Rockland County			Hudson County	Morris County		
		East Rutherford	Englewood	Fairlawn	Hackensack	Teaneck	Fort Lee	Lyndhurst	Clifton	Passaic	Paterson	Wayne	Upper West Side	Upper East Side	West Midtown	East Midtown	Lower East Side	Lower West Side	Suffern	New City	Nyack			
B	East Rutherford	7304	121	246	1008	197	189	1942	1949	1461	562	258	213	144	1187	632	629	631	28	4	6	7708	354	
E	Englewood	256	15330	358	3566	3765	4132	107	270	157	464	177	2637	1395	3255	1937	1549	1467	64	22	60	6932	297	
R	Fairlawn	497	438	17695	3361	884	564	242	1711	989	5800	910	677	410	1516	954	864	750	201	29	37	3516	882	
G	Hackensack	904	1632	1399	43726	4727	2220	403	1074	642	2071	643	1634	918	2505	1537	1340	1076	180	31	40	7278	846	
E	Teaneck	418	4526	739	10734	17986	4138	176	439	255	802	250	2896	1527	3764	2278	1814	1664	102	22	46	8271	387	
N	Fort Lee	256	2287	299	2993	1933	19766	111	116	68	212	65	3590	1816	4085	2431	1968	1770	55	19	48	9473	310	
	Lyndhurst	2229	77	137	586	110	132	5419	1251	676	344	189	160	105	955	484	509	509	14	2	3	7125	237	
P	Clifton	1551	254	1157	1720	385	378	1078	51749	17890	14977	3801	1274	215	1140	526	533	645	36	9	12	3640	798	
A	Passaic	1526	153	568	1117	226	219	712	20487	32942	4817	1172	670	336	2957	340160	1308	1631	49	10	15	10296	1096	
S	Paterson	738	529	5621	3787	923	832	427	19531	7960	93047	10275	2374	995	3470	1764	1592	1881	212	33	46	9440	5066	
A	Wayne	284	164	931	860	226	208	199	4520	1570	10849	78644	744	349	1720	858	894	992	321	38	47	4023	13898	
I																								
C																								
Manhattan	Upper West Side	103	141	697	153	1210	615	1441	56	429	244	704	252	242709	73717	95880	47846	31551	32834	59	69	184	5736	957
	Upper East Side	104	82	416	93	711	365	755	33	244	139	360	158	72779	213005	65623	67958	36766	24851	39	43	131	3423	536
	West Midtown	105	126	288	72	417	246	405	65	489	265	340	270	24638	15127	80632	36089	28166	32505	30	18	35	5480	180
	East Midtown	106	70	176	51	278	155	253	34	260	139	207	146	11662	20021	49756	50488	33945	23805	20	14	31	3060	172
	Lower East Side	107	86	185	47	314	174	310	46	289	157	208	138	12457	18031	65616	57661	131221	73312	18	17	39	6540	212
	Lower West Side	108	101	178	43	241	153	250	50	368	199	227	183	11375	9215	63878	34312	58153	72044	20	14	32	7091	281
	Suffern	109	81	122	309	551	181	159	32	190	107	350	387	303	249	1190	639	553	547	25107	693	787	998	818
Other	New City	110	25	90	79	183	68	142	10	109	61	157	77	448	373	1553	962	601	553	694	22086	2866	633	184
	Nyack	111	22	117	66	176	82	173	9	92	51	133	66	644	585	1766	1215	815	643	529	1569	26267	748	160
	Hudson County	112	3098	1479	734	5098	1588	3164	2458	6232	3459	3030	1914	11712	6757	65381	31587	40031	48967	149	22	63	705116	5287
	Morris County	113	1514	727	2323	3379	983	1068	981	10179	3772	12292	37792	4715	2311	17002	8721	10917	11499	1590	281	388	58937	1053802

4.3. Off-Peak, Midday Bus Transit Patterns

On-board bus passenger surveys were conducted to provide insight into midday and off-peak service needs and travel patterns. To confirm observations about general transit use trends, survey results were aggregated by interstate/NYC services and inter-/intra-county service, which represent New York City-bound services and intra-state services, respectively. Note that in the following sections, not all surveyed riders responded to every question. As a result, the percentages may not add up to 100% in all cases.

It is also important to note that the Bergen-Passaic study area is very diverse, both ethnically and culturally. Language barriers and cultural issues involving the reluctance of some populations to participate in government-sponsored initiatives affected the results of the study. This is particularly true of the results of the inter/intra county services. Unfortunately, the routes most frequently used by the immigrant populations are often the ones that require the most feedback, as many non-English speaking workers are employed in shift work or have other transit needs that may be assumed, but cannot be known without an effective dialogue with the ridership community.

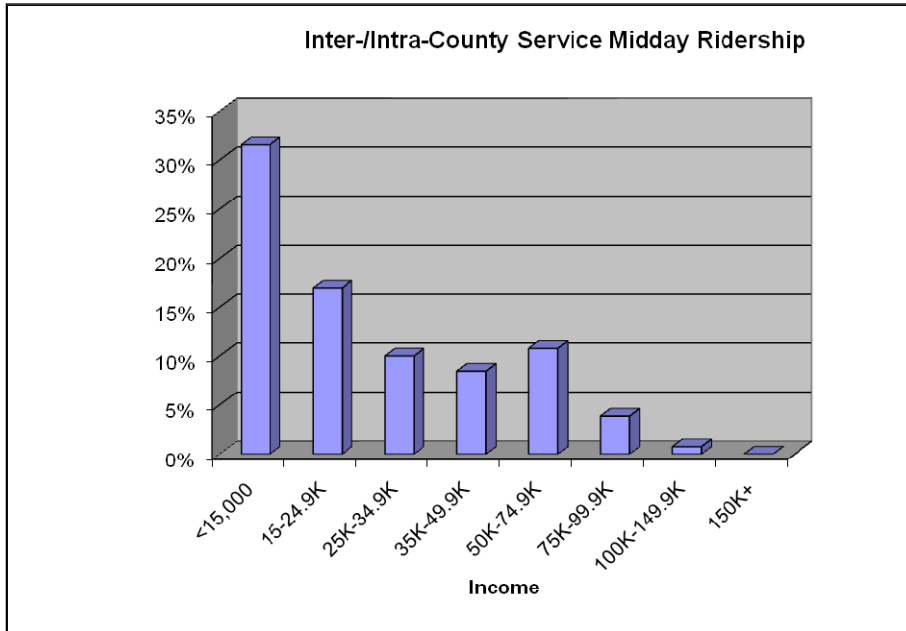
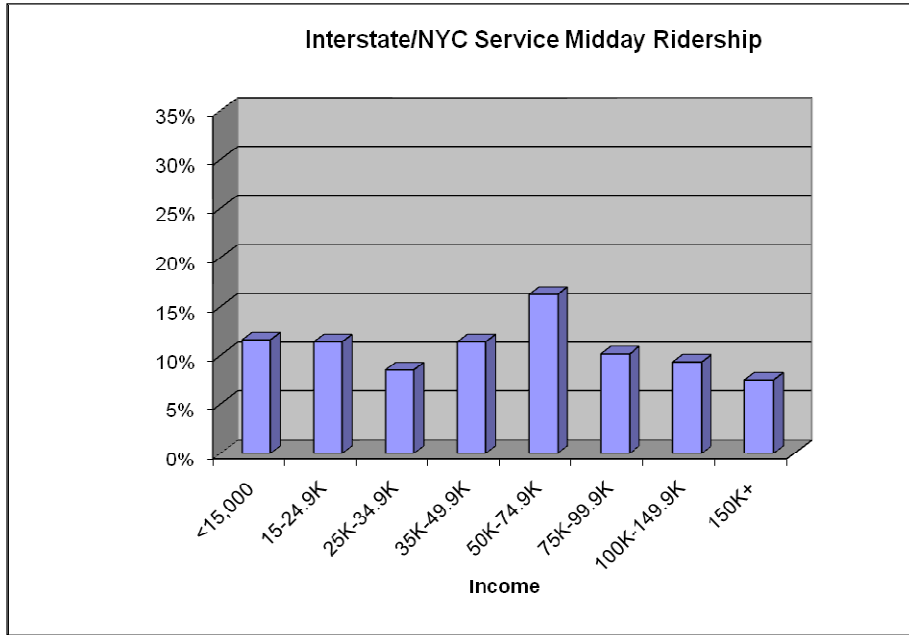
Future efforts may seek to focus more specifically on the needs of the non-English speaking populations and those with cultural requirements that may be affecting their use of NJ TRANSIT bus service. Multi-lingual surveys or survey facilitators would be useful in certain locations, as follows:

- Asian Communities of Eastern Bergen County, including the municipalities of Leonia, Palisades Park, Englewood, Englewood Cliffs, Edgewater and Fort Lee
- Latino Communities of Passaic County municipalities of Paterson and Passaic
- Communities with specific religious cultures : Clifton, Passaic Park, Paterson and Teaneck

4.3.1. Reported Individual Income

As predicted by the Census demographic data, the interstate/ NYC services midday riders represent a more diverse population in terms of income than the inter-/intra-county service. Income level distribution for riders on the interstate/NYC services during the midday period (10AM to 4PM) varies by about 8%, with all income levels represented, and none representing more than 16% of the riders (the income range with the greatest representation is the \$50,000 to \$74,999 group at 16%). Reported income levels for the inter-/intra-county service riders are skewed more to the lower income ranges, with more than 30% of riders reporting incomes of less than \$15,000 per year. Less than 5% of the inter-/intra-county service riders surveyed earn more than \$75,000 per year, and none of the surveyed riders earn more than \$150,000 per year. Figure 25 illustrates these findings.

Figure 25: Midday Service Comparison: Income

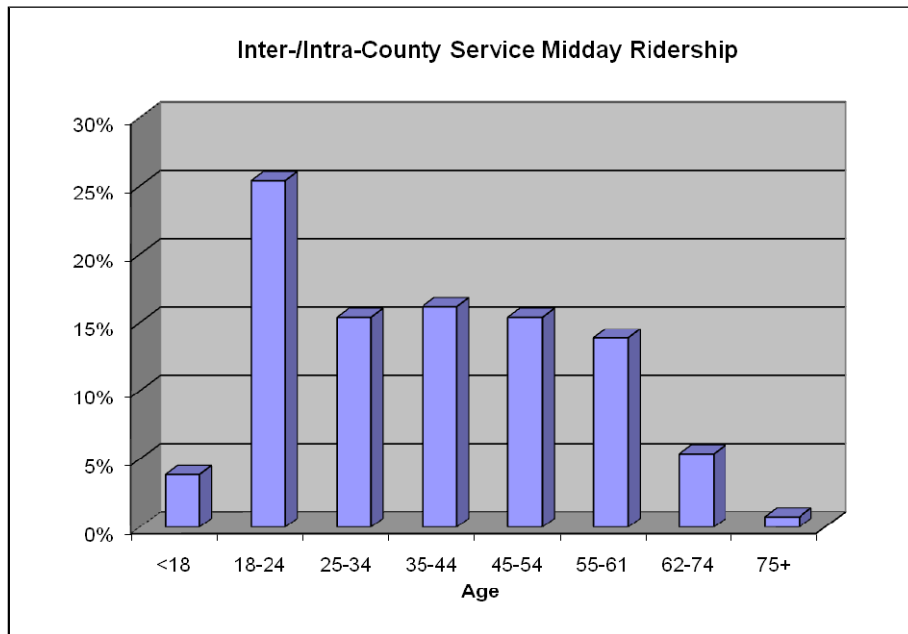
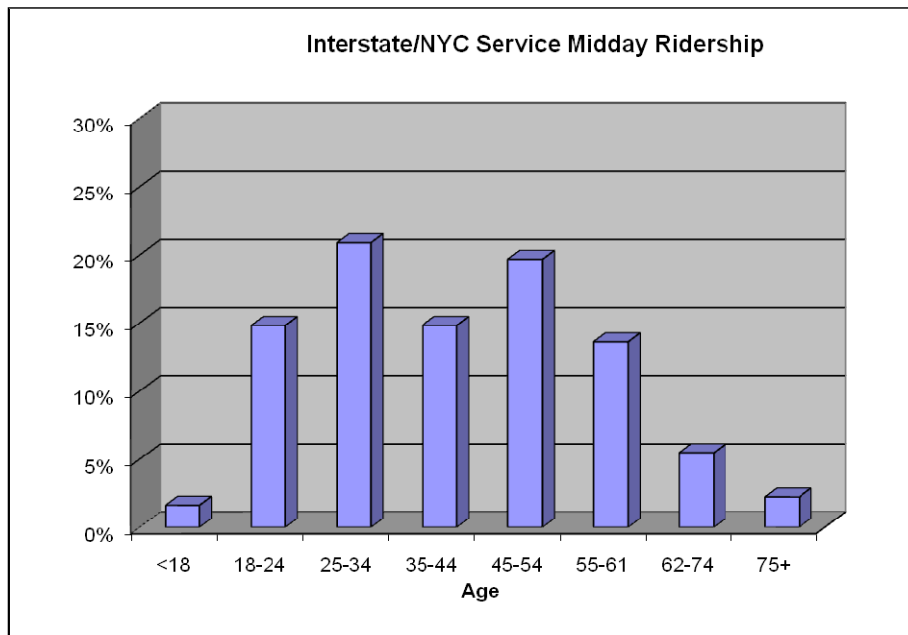


4.4. Reported Age

The interstate/NYC services midday riders also represent a more diverse population in terms of age of rider than the inter- /intra-county service. Commuters using the inter-/intra-county service bus routes during the midday period are generally younger. About 25% of the inter-/intra-county

service riders are between 18 and 24 years old, and the distribution of age groups older than that demographic, up to and including 55-61 years of age is about equal at 15% each. The interstate/NYC services show more diversity of the rider population with most riders falling between the ages of 18 and 61 (Figure 26).

Figure 26: Midday Service Comparison: Age



4.5. Destination Type

Figure 27 (next page) illustrates where riders are going during the midday period on the interstate/NYC services and inter-/intra-county service surveyed. In both series, the majority of riders are either heading home or to work. Outbound midday ridership is indicative of workers who are employed in shift work. Given the income levels and age of the riders discussed above, it is likely that workers commuting on the inter-/intra-county service work in retail or food services or similar job types that typically attract younger employees and pay minimum wage, particularly for younger employees with less experience. The employees on the interstate/ NYC services represent a broader spectrum of ages and income levels. Shift workers within these income ranges include retail and food service, but also medical professionals and some government positions that do not impose residency restrictions.

As also may be predicted by a general knowledge of the study area and market area, more riders on the interstate/NYC services are using bus service to reach recreational destinations than are riders on the inter-/intra-county service. Meanwhile, the distribution of destinations for inter-/intra-county service riders covers a greater range of destination types at greater percentages than the interstate/NYC services. This indicates that the inter-/intra-county service routes are used by riders to meet daily needs, such as keeping medical appointments, going to and from school and college, and shopping for daily necessities. While it is true that using the bus for “shopping” is approximately the same percentage for both the interstate/NYC services and inter-/intra-county service, other uses of the routes and demographic data discussed above allows the inference that the type of “shopping” is different. It is likely that the “shopping” performed in NYC is not grocery-level daily shopping but specialty and retail shopping.

4.6. Means of Reaching the Bus Stop

The interstate/NYC services and inter-/intra-county service are similar in that the majority of riders walk to the bus stop (Figure 28). The differences are found in the remaining means of reaching the bus stop, and differ predictably, on whether the line serves Manhattan or the New Jersey study area. Riders on the interstate/NYC services reach their bus stop by subway, which is understandable as outbound midday service leaves the Port Authority Bus Terminal or the George Washington Bridge Terminal, which are both served by MTA subways. Inbound riders on the interstate/NYC services are likely exclusively walkers or reach the bus stop by use of a private car.

Riders on the inter-/intra-county services reach their bus stop by walking but also by bus transfers. All other means of reaching the bus stop accrue to less than 1% of the riders surveyed. This statistic underscores the transit-dependence of riders on the intra-state services within the study area and agrees with the 2000 Census data described above, that income level is associated with access to automobiles and transit dependence.

Figure 27: Midday Service Comparison: Destination

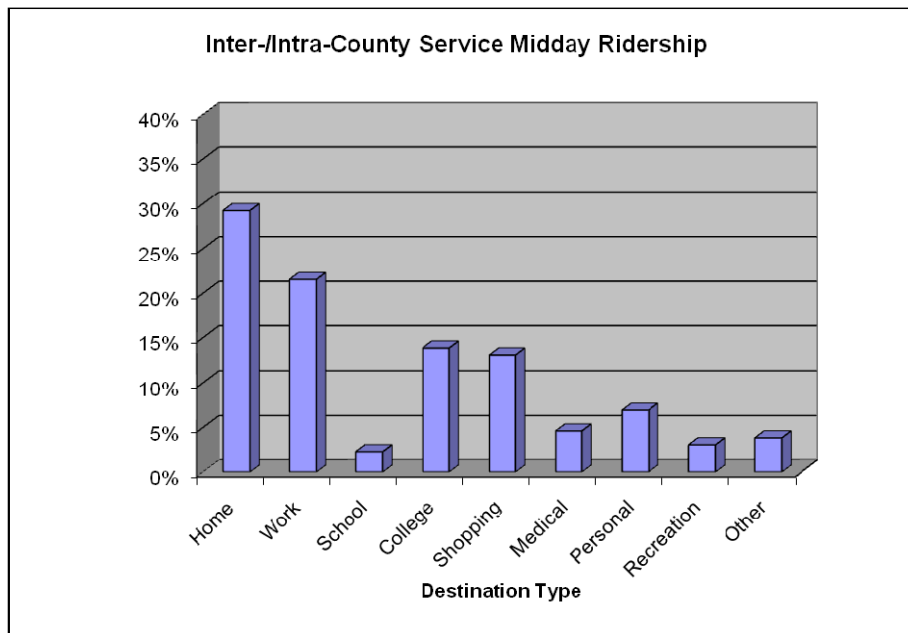
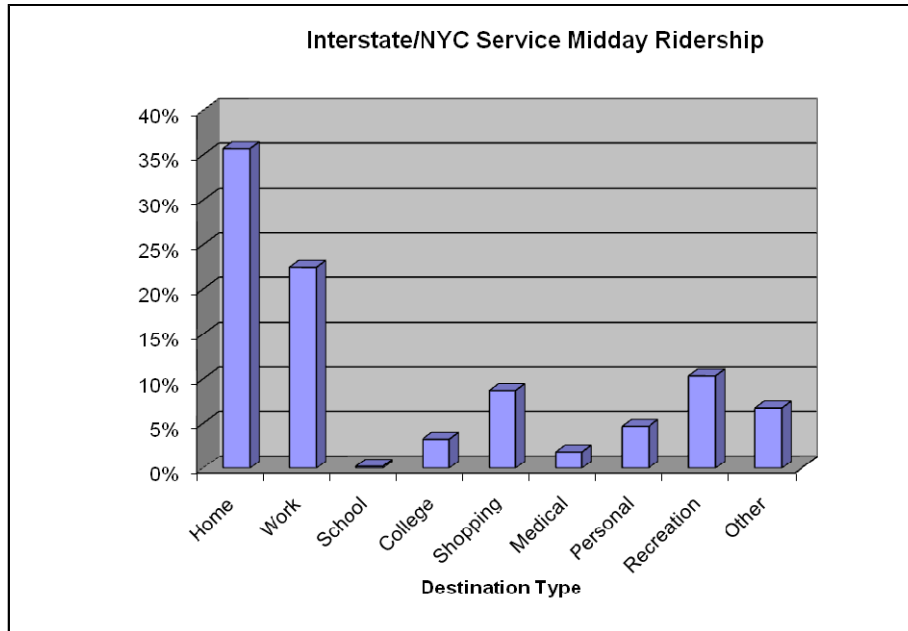
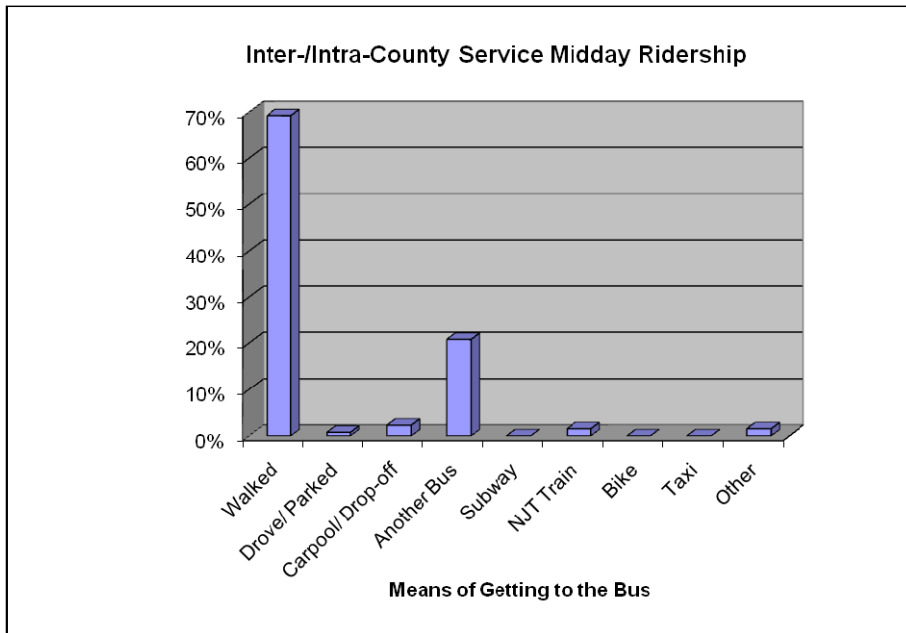
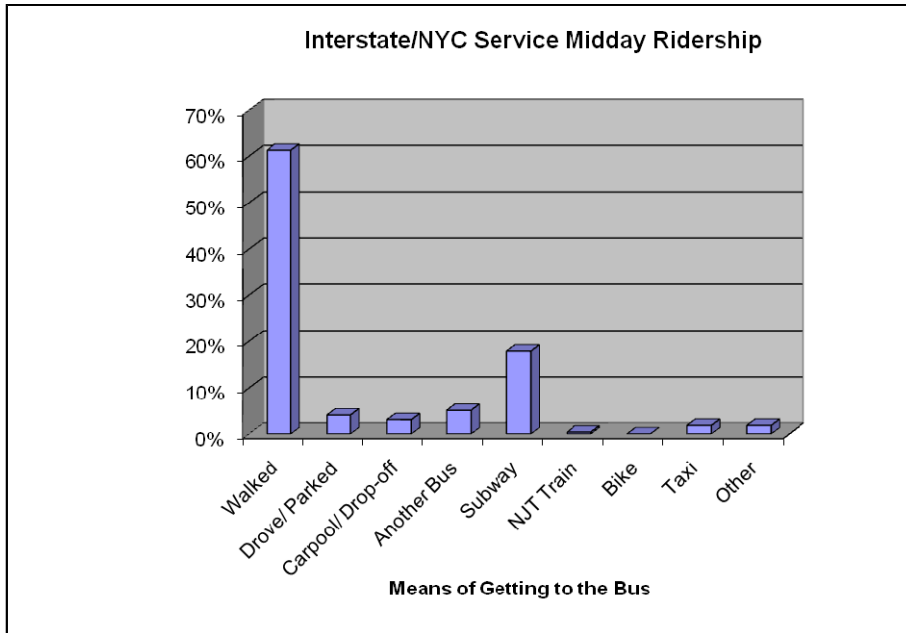


Figure 28: Midday Service Comparison: Means of Reaching Bus



4.7. Conclusions Drawn from Midday Service Survey Analysis

Ridership on the inter-/intra-county services during the midday is dominated by younger, less affluent commuters who rely on the bus to reach a wide variety of uses and destinations, including work, shopping, school, and medical appointments. Approximately 20% of the riders surveyed used another bus line to reach the inter-/intra-county services line surveyed, indicating a level of transit dependence. It is worth noting that given the inferences made regarding transit dependence, it is likely that the riders of inter-/intra-county services surveyed would benefit from improvements and enhancements to late night and weekend services, as nearly 30% of the riders during the midday period were using the bus service to reach their jobs which occur during non-peak weekday hours. Return trips would occur 8 to 12 hours after the time period surveyed, or between 6pm and 4am. Additional service or service expansions during the evening and overnight hours, specifically 7PM to 1AM on weekends, would appear to be beneficial to many transit-dependent riders. Additionally, all day weekend service also would benefit several rider groups, particularly those who work in shifts. Consequently, bus lines that have stops at or near retail/service establishments (malls, restaurant complexes) or hospitals would be good candidates for expansion of service.

Ridership on the interstate/NYC services during the midday represents a wide range of age groups and income levels. The majority of riders are using the service to reach work or home, but few used another bus service to reach the interstate/NYC services surveyed. While improving late evening, night, and overnight/reverse commute service is often cited as a “need” for transit service improvements, the ridership on the interstate/NYC services appears to be less transit-dependent and, given other demographic indicators, more prepared to find alternate means of getting to and from work should the bus service be unavailable when they need it.