



# Sussex County Public Transportation Study

## Final Report

*September 2011*



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## Executive Summary

Sussex County invited Nelson\Nygaard Consulting Associates to lead a study team, including Fitzgerald & Halliday, to evaluate the effectiveness of the current Skylands Ride service structure and make recommendations for service prioritization and improvement.

Over the course of six months, the Nelson\Nygaard team analyzed the routes, schedules, fleet, demographics, marketing, and funding sources of Skylands Ride. In addition, the team reviewed the results of previous surveys of Sussex County residents on the topic of transit. Both the technical analysis and survey review led to the following five issues facing Sussex County Skylands Ride:

- 1) Limited service locations
- 2) Limited hours of service
- 3) Lack of knowledge of services available
- 4) Service not frequent enough
- 5) Limited connections

The following report details the analyses that led to the identification of these five issues and presents recommendations to address each one. The highlights of these recommendations include:

- Replace the existing “Loop” route with fixed-route or deviated fixed-route service along the most transit-supportive corridor linking Newton and Sussex.
- Introduce new fixed-route service to Carlton Village and the Sussex County YMCA.
- Institute a new operating plan to de-couple drivers from transit vehicles, allowing vehicles to remain in continuous service throughout the day, resulting in greater service frequency and longer hours of operation.
- Create a pool of part-time reserve drivers to fill in for regular drivers as needed.
- Establish a reasonable fare structure for all services, consider multi-ride passes, and pursue non-traditional sources of funding.
- Consider rebranding the fixed-route and demand-responsive service.
- Make transit data available to the public via the Google Transit Partners Program.
- Designate NJ TRANSIT’s Netcong rail station as an approved destination for demand-responsive service.

These recommendations, and others listed in the following report, are designed to improve the effectiveness and efficiency of Skylands Ride, by allowing existing passengers to ride more often and reducing barriers for prospective customers who may become regular riders over time.

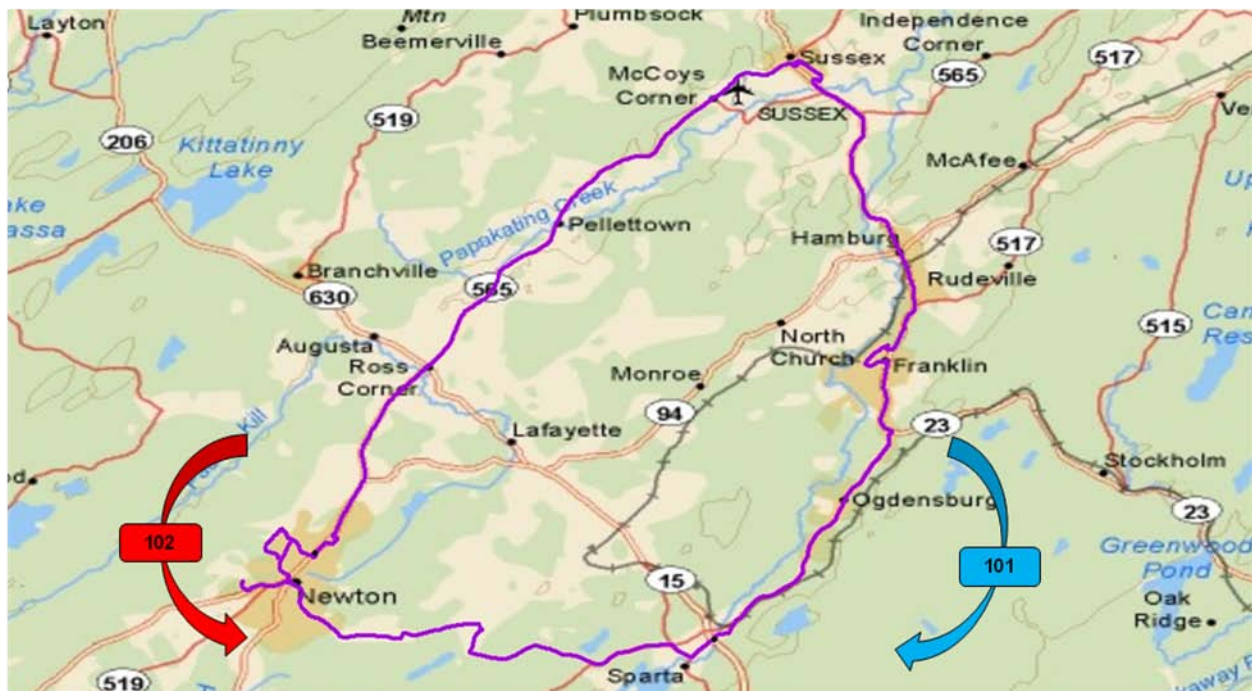
These changes will also serve to raise the profile of Skylands Ride, and improve the reputation of the service county-wide.

## Chapter 1: Introduction

Sussex County Skylands Ride is the county-run public transportation provider for Sussex County, NJ. On weekdays from 5:00 a.m. to 6:30 p.m., Skylands Ride operates two distinct transit services for county residents: deviated fixed-route service known as the "Loop" and county-wide demand-responsive service.

The "Loop" service consists of a bi-directional, deviated fixed-route loop serving major destinations in Newton, Andover, Sparta, Ogdensburg, Franklin, Hamburg and Sussex. Buses traveling clockwise around the loop are designated as Route 101, while counter-clockwise service is known as Route 102 (Figure 1).

**Figure 1: Skylands Ride Loop Service**



The regular fare for Loop service is \$1.00 per one-way trip, but passengers may also request a deviation of up to  $\frac{3}{4}$  of a mile for an additional \$1.00 charge. However, such deviation requests are extremely rare. For the remainder of this report, the term fixed-route refers to deviated fixed-route service when used in reference to the existing Loop.

Skylands Ride's demand-response service is a curb-to-curb transportation service for all county residents. With the exception of medical appointments, trips are restricted to destinations within the county borders. Non-emergency medical appointments such as dialysis, radiation, veteran's health services, etc., are permitted outside of Sussex County if no suitable facility exists within the county.

Fares for demand-responsive service are voluntary. Suggested donations are \$1.50 per one-way trip within the county and \$3.00 per one-way trip outside of the county. County residents wishing to use the demand-response service must be pre-registered for the service and make their trip request 48 hours in advance.

Historically, the demand-responsive service has carried the majority of transit trips in Sussex County, but within the last year or so, the balance has shifted to the fixed-route Loop service. This can be attributed to the addition of destinations such as Project Self Sufficiency to the Loop route, and to increased travel training by the Division of Social Services, resulting in more familiarity with the destinations served by the fixed-route service. In addition, Loop bus passes are made available to clients of both the Division of Social Services and Project Self Sufficiency, creating further incentive to use this service. All vehicles operated by Sussex County Skylands Ride, whether fixed-route or demand-response, are fully wheelchair accessible.

**Figure 2: Skylands Ride Demand-Response Vehicles**



In addition to the services provided by Skylands Ride, there are a number of other transportation providers operating in the county. Unlike the county-wide focus of Skylands Ride, each of the other providers has a very narrow focus, serving a specific corridor or town:

- The municipalities of Sparta, Newton, Byram, and Hopatcong provide special needs transportation service within their community for elderly and disabled residents.
- TransOptions, the Transportation Management Association (TMA) for commuters, business, and local

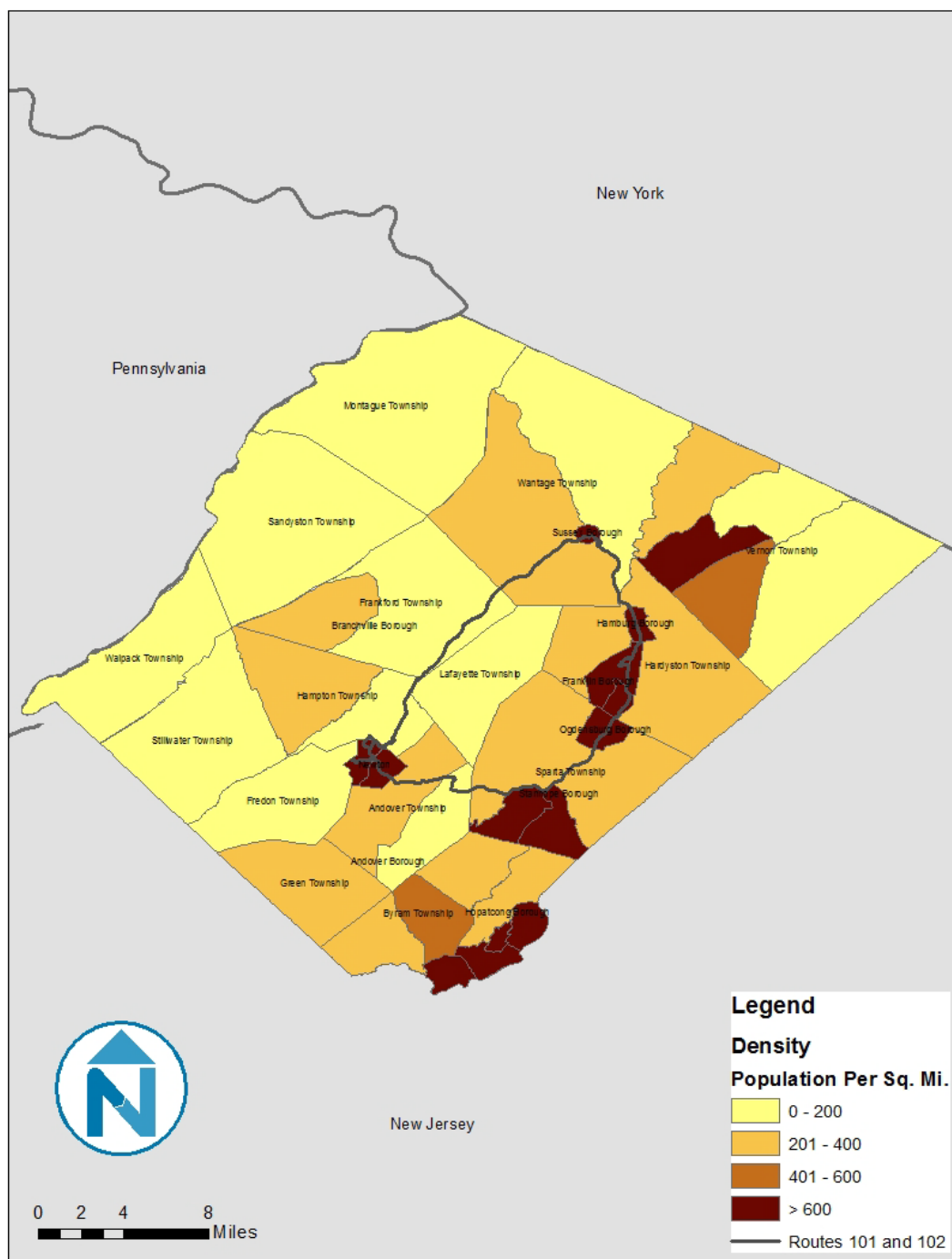
municipalities in Morris, Sussex, Warren, and suburban Essex, Passaic, and Union counties administers the Vernon Area Shuttle, which provides limited peak-period connections between Hamburg and Vernon. TransOptions also administers a peak-period feeder route between Vernon and NJ Transit's Route 194 in Stockholm.

- Sussexpress is a private commuter van service from Hamburg to Penn Station in Newark.
- Lakeland Bus Lines operates a commuter coach service between Sussex County and New York City. Passengers can also transfer to NJ Transit commuter rail in Netcong. The service operates southbound only in the morning peak-period and northbound only in the evening peak-period, with pick-up and drop-off locations in Sparta, Newton, Springdale, Andover, Bryam, and Stanhope.

## Chapter 2: Community Profile

Sussex County is the northernmost county in the State of New Jersey and has 24 incorporated municipalities. According to the 2010 US Census, the county has nearly 150,000 residents.

**Figure 3: Sussex County Population Density (Persons per Square Mile)**





In general, the county has a relatively low-density settlement pattern with roughly 290 residents per square mile. However, there are a number of areas found throughout the county with significantly higher population densities (Figure 3).

Sussex County's population has grown from 77,528 in 1970 to 149,625 in 2010 (Figure 4), but much of the county remains rural and agricultural in nature (Figure 5).

**Figure 4: Sussex County Population Growth**

Census	Population	Percent Growth
1970	77,528	57.4%
1980	116,119	49.8%
1990	130,943	12.8%
2000	144,166	10.1%
2010	149,625	3.5%

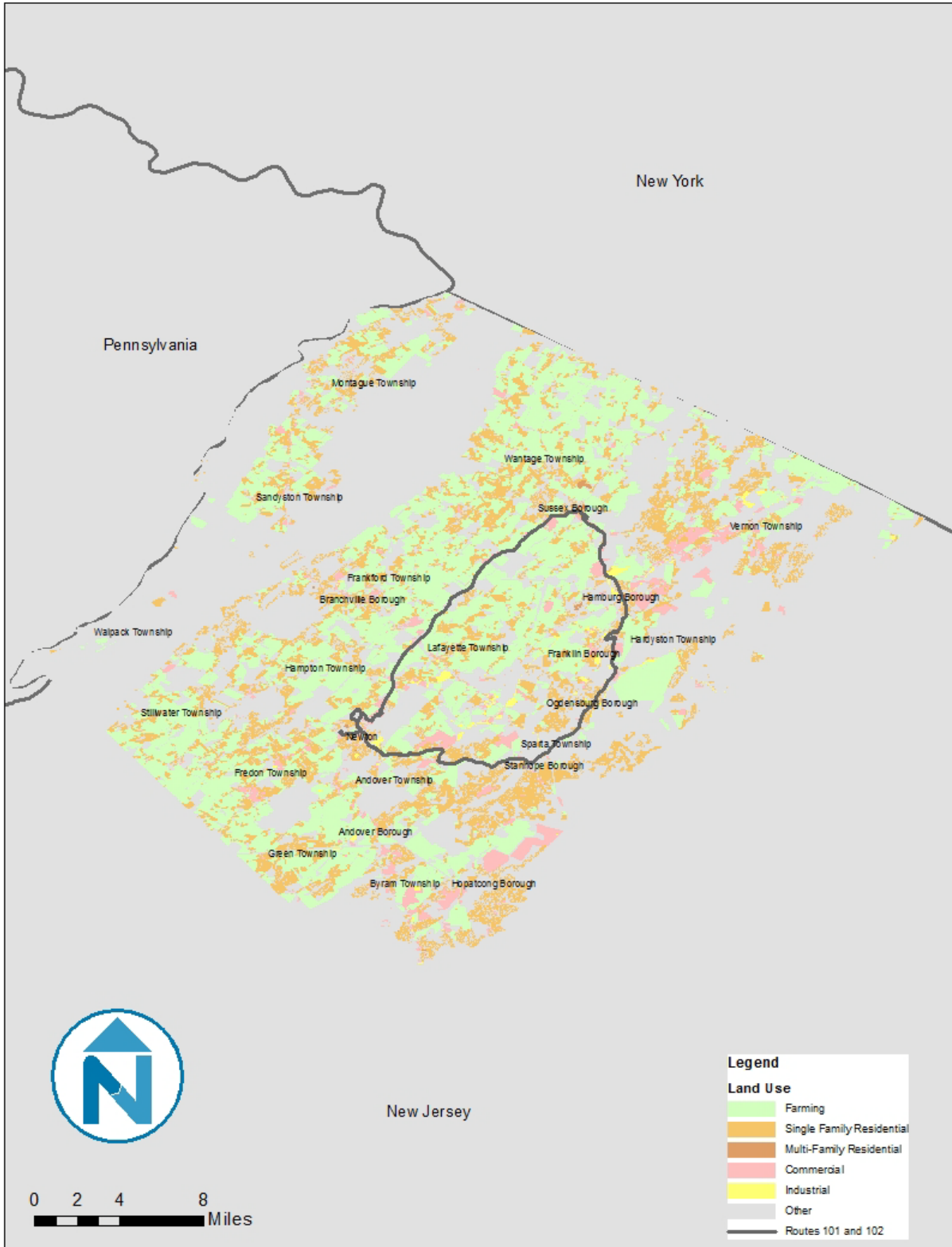
Given the range of population densities and land use types in the county, it is appropriate for Skylands Ride to offer a mix of service types to meet the mobility needs of Sussex County residents. To be most effective, fixed-route transit service requires a diverse mix of land uses and a population density of at least four housing units per acre. In addition, the presence of certain demographic characteristics can predict the likelihood of transit use in an area.

## Transit Propensity

A report published by the Transportation Research Board, TCRP Report 28: Transit Markets of the Future, offers a methodology by which an aggregate level of transit propensity can be calculated for geographic sub-areas such as census tracts. The report indicates the rate of transit usage for each of a range of population sub-groups compared to the average for the general population. For example, women tend to use transit 1.18 times more than average, so the propensity factor for the female population is 1.18. This factor is then multiplied by the proportion of population in each census tract that is female. This process is repeated for a series of population sub-groups that tend to have high rates of transit use, and the scores are summed to produce an aggregate number.

Figure 6 shows how the overall transit propensity for Sussex County was calculated, based on American Community Survey (ACS) 2005-2009 and Census 2000 data. At the time this report was prepared (August 2011) the complete dataset of 2010 Census data was not yet available. As a result, the most recent ACS data was used for most demographic measures (including the total population figure, which differs slightly from the 2010 census figure). The ACS is an ongoing statistical survey by the U.S. Census Bureau, sent to approximately 3 million people per year, and meant to give communities current demographic information to help plan for services and community investments. The transit propensity of each census tract was calculated in the same way but using census tract-level population figures.

Figure 5: Sussex County Land Use



**Figure 6: Sussex County Transit Propensity**

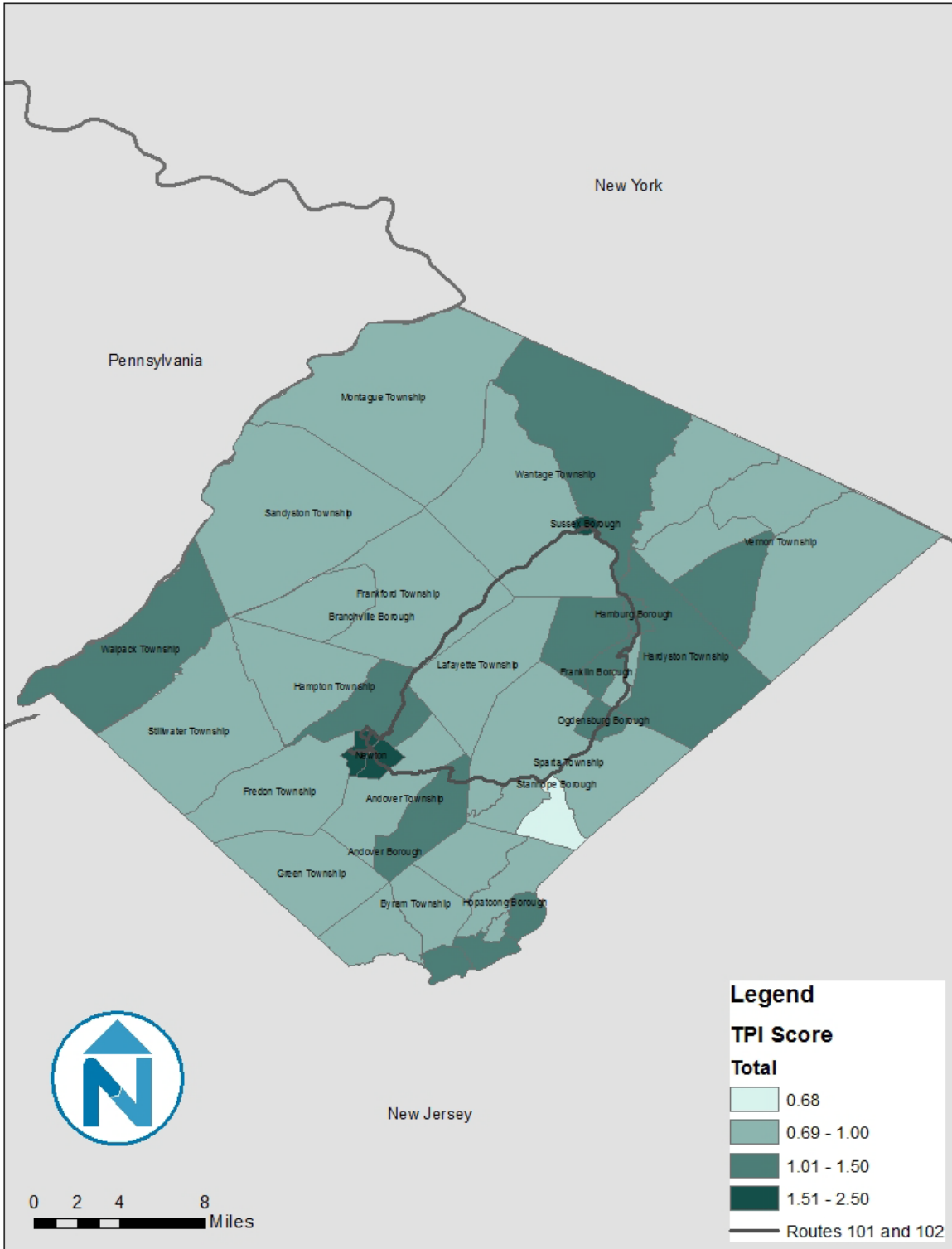
Population Sub-Group	Propensity Factor	Population	Proportion of Total Population	Contribution to Propensity (Factor x Proportion)
Total Population (Individuals)		151,239		
Females	1.18	75,964	0.50	0.59
African Americans	2.72	2,857	0.02	0.05
Asians	1.74	2,937	0.02	0.03
Hispanics	1.73	8,583	0.06	0.10
Persons with a Physical Disability	2.41	8,084	0.05	0.13
Persons with a Work Disability	1.25	7,641	0.05	0.06
Households		55,079		
Household Income under \$10K <sup>1</sup>	1.24	1,718	0.03	0.04
Household Income \$10-15K	1.24	1,156	0.02	0.03
Household Income \$15-20K	1.08	1,621	0.03	0.03
Household Income \$20-25K	1.04	1,662	0.03	0.03
Housing Units		60,347		
Housing Units without Access to Automobiles	5.76	2,105	0.03	0.20
Workforce		118,395		
Workers ages 16-29	1.14	14,912	0.13	0.14
Workers ages 65+	1.10	2,226	0.02	0.02
Total				1.46

The overall transit propensity for Sussex County was found to be 1.46 (Figure 6). The map on the next page (Figure 7) shows the indexed transit propensity of each census tract relative to the county-wide propensity. A census tract that has a transit propensity index (TPI) score of greater than 1 has a greater transit propensity than the county as a whole, while a TPI score of less than 1 indicates a tract with lower transit propensity than the county as a whole.

It should be noted though, that areas with very low total population like Walpack Township tend to show a high transit propensity if any of the propensity factors are present at all. Thus it is important to view the transit propensity map in Figure 7 in the context of the population density map shown above in Figure 3.

<sup>1</sup> Income is adjusted to 2009 dollars.

Figure 7: Overall Transit Propensity Index



The highest transit propensity in Sussex County is found in the Town of Newton and Sussex Borough. The western side of Newton has 2.13 times the transit propensity of the county as a whole, while Sussex Borough has 1.73 times more transit propensity than the county.

Other areas of the county with relatively high transit propensities (at least one census tract with a TPI score above 1) include:

- Hardyston Township (TPI = 1.37)
- Franklin Borough (TPI = 1.33)
- Walpack Township (TPI = 1.25)
- Andover Township (TPI = 1.18)
- Hopatcong Township (TPI = 1.17)
- Ogdensburg Borough (TPI = 1.14)
- Hampton Township (TPI = 1.11)
- Hamburg Borough (TPI = 1.05)
- Vernon Township (TPI = 1.05)

Those areas with high TPI scores, relatively high population density, and a diversity of land uses (Figure 5) are most conducive to fixed-route transit service. Otherwise, demand-responsive service is likely the more appropriate.

Individual maps illustrating each demographic sub-component used to calculate the overall transit propensity index are found in Appendix A. Again, an index score of greater than 1 indicates that the demographic sub-group represents a higher proportion of a census tract than of the county as a whole. A score of less than 1 indicates that a particular population sub-group has less of a presence in the census tract than in the county as a whole.

### Major Employers

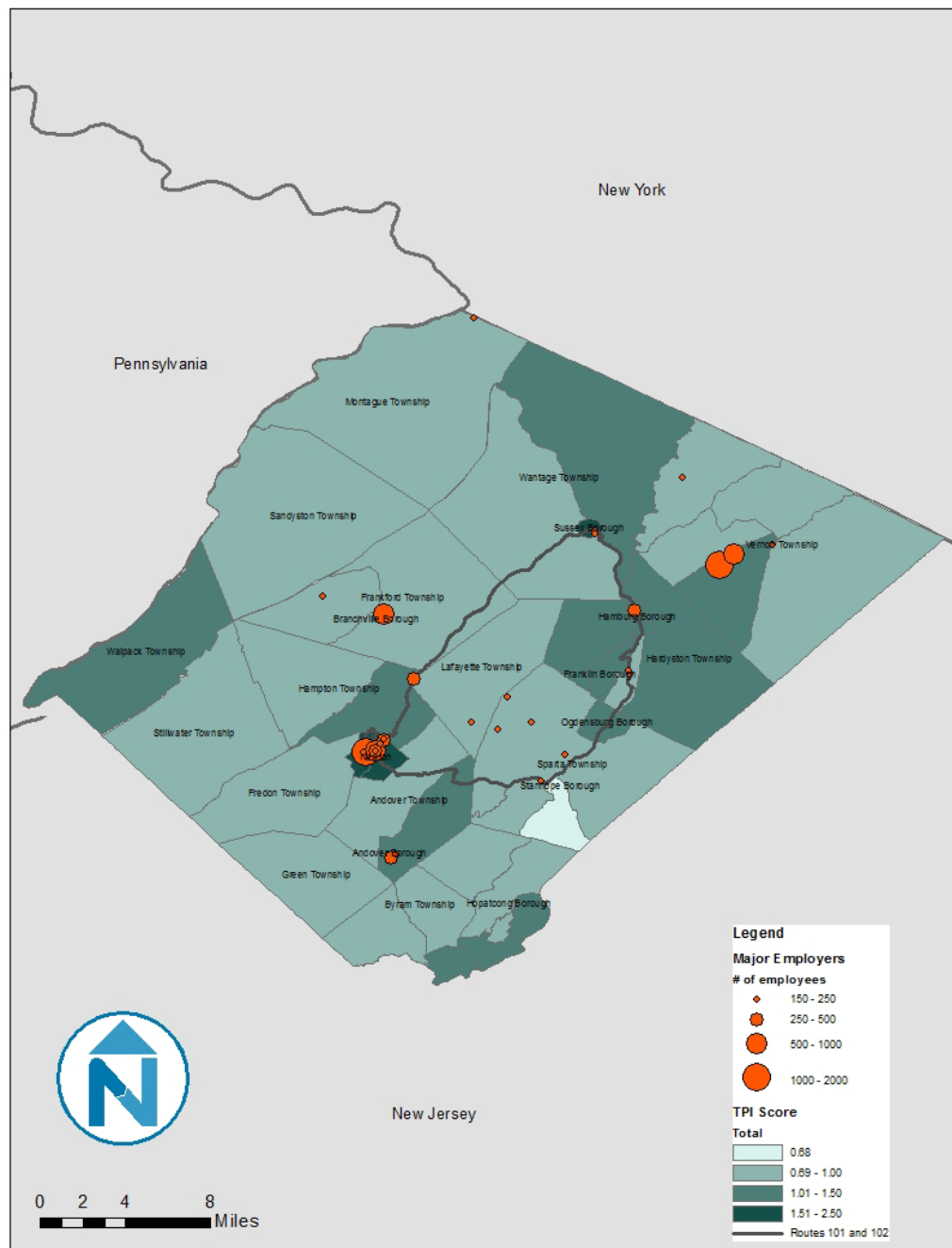
As mentioned previously, land use diversity is key to the effectiveness of fixed-route service. The more diverse the land use that a transit route runs through, the higher the likelihood that a passenger's desired trip origin and destination will both be found along the route. A typical trip origin would be a passenger's home, while a typical destination would be their place of work. Therefore, identifying areas with relatively high concentrations of jobs can help determine the most appropriate alignment for fixed-route service. Figure 8 lists the top employers in Sussex County by number of employees.

**Figure 8: Major Employers in Sussex County**

Employer	Location	Employees
Crystal Springs Golf and Spa Resort	Vernon/Hamburg	2000
Newton Memorial Hospital	Newton	1200
Selective Insurance	Branchville	900
County of Sussex	Newton	830
Mountain Creek Resort	Vernon	800
Ames Rubber Corp.	Hamburg	445
Shop Rite Supermarkets (Ronetco)	Newton	301
Andover Subacute & Rehab Center	Andover	300
Sussex County Community College	Newton	300
SCARC, Inc.	Augusta	287
Raider Express	Andover	250
Wal-Mart	Newton	225
ShopRite(Montague Big V)	Montague	216
Vernon Township High School	Vernon	215
Saint Clare's Hospital	Sussex	200
Bristol Glen	Newton	200
Sparta High School	Sparta	200
Sussex County Technical School	Sparta	200
Willow Glen Academy	Various	200
Econo-Pak	Sussex	200
High Point Board of Education	Wantage	200
High Point High School	Wantage	200
Stop and Shop	Sparta	200
Wal-Mart	Franklin	187
Shop Rite	Franklin	180
Kittatinny Regional High School	Hampton	172
Sunrise House Foundation	Lafayette	165
Grinnell Industries	Sparta	165
Lowe's	Hampton	162
Thorlabs	Newton	150
Barn Hill Care Center	Newton	150
Home Depot	Newton	150

As shown in Figure 9 below, the existing Skylands Ride Loop routes are structured around many of these locations.

Figure 9: Distribution of Major Employers in Sussex County



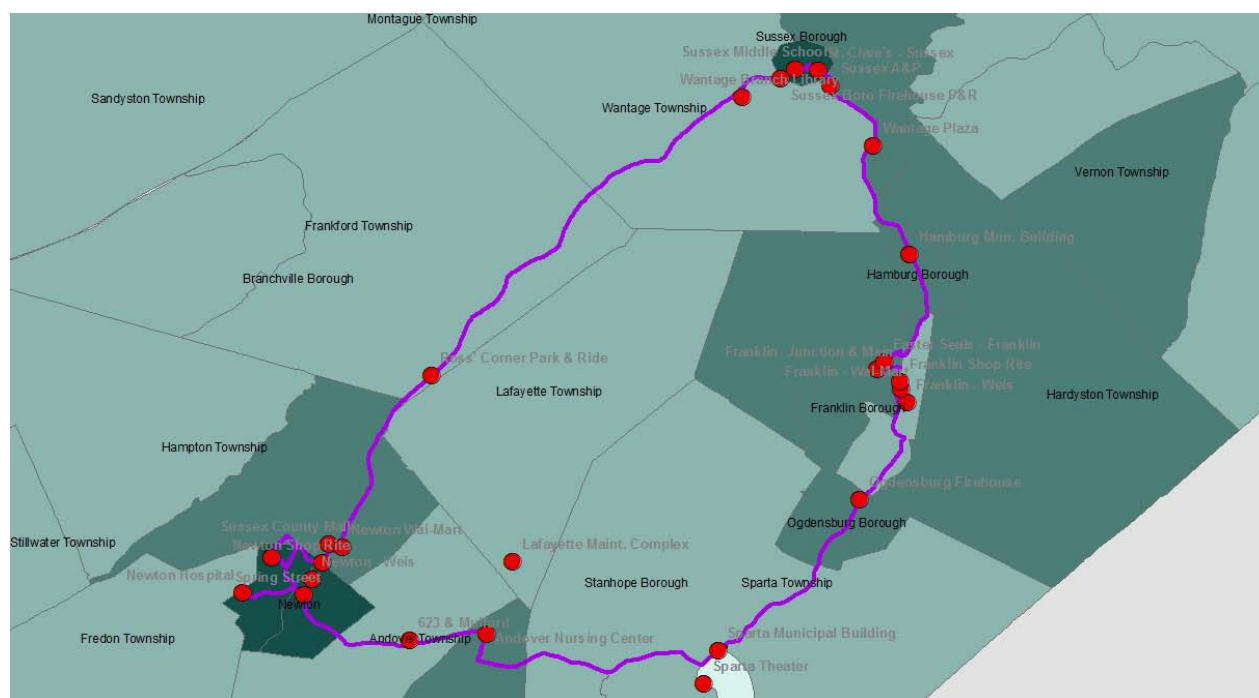
Although the Crystal Springs Golf and Spa Resort appear to have the highest concentration of employees in the County, the resort itself is spread over a very large area. Consequently, employment sites associated with the resort are not necessarily within close proximity of one another and have proven difficult to serve with transit.

## Chapter 3: Existing Transit Service

The maximum weekday “pull-out” for Sussex County Skylands Ride is 22 vehicles: 4 fixed-route Loop buses and 18 demand-responsive cut-away buses. However, the actual pull-out on any given day is dependent on demand and staff availability, and while the four Loop buses are in use every day, the number of demand-response buses is nearly always less than 18. The seating capacity for the larger fixed-route buses is 24, plus one wheelchair. 16 of the 18 demand-responsive buses seat 12 passengers and one wheelchair, while two others seat 16 passengers and one wheelchair.

The Loop bus has 25 designated bus stops in Newton, Andover, Sparta, Ogdensburg, Franklin, Hamburg, Sussex, and Augusta (Figure 10). These stops serve most of the major retail, medical, social services, educational, and housing facilities in these communities. Each of the designated stops is listed on the published Skylands Ride schedule, but no bus stop signs are used on-site to mark bus stop locations. In many cases, however, the Loop buses pull up directly to the main entrances of the designated destinations. In addition to the designated bus stops, Skylands Ride employs a “flag stop” system, allowing passengers to simply wave down a Loop bus anywhere along its route. Flag stops account for a very small percentage of total passenger boardings.

### Figure 10: Loop Bus Stops





## Ridership

Passenger boardings and alightings are manually recorded by Loop drivers on paper manifests. This information can be used to analyze the productivity of the Loop service by trip, by stop, and by time of day. Figure 11 below shows the average number of boardings per boarding opportunity for each stop over a period of 11 weekdays. A value of greater than 1 indicates that, on average, more than one person boards the bus each time a bus serves the stop (regardless of direction).

**Figure 11: Average Stop-Level Ridership (4/15/11 to 4/29/11)**

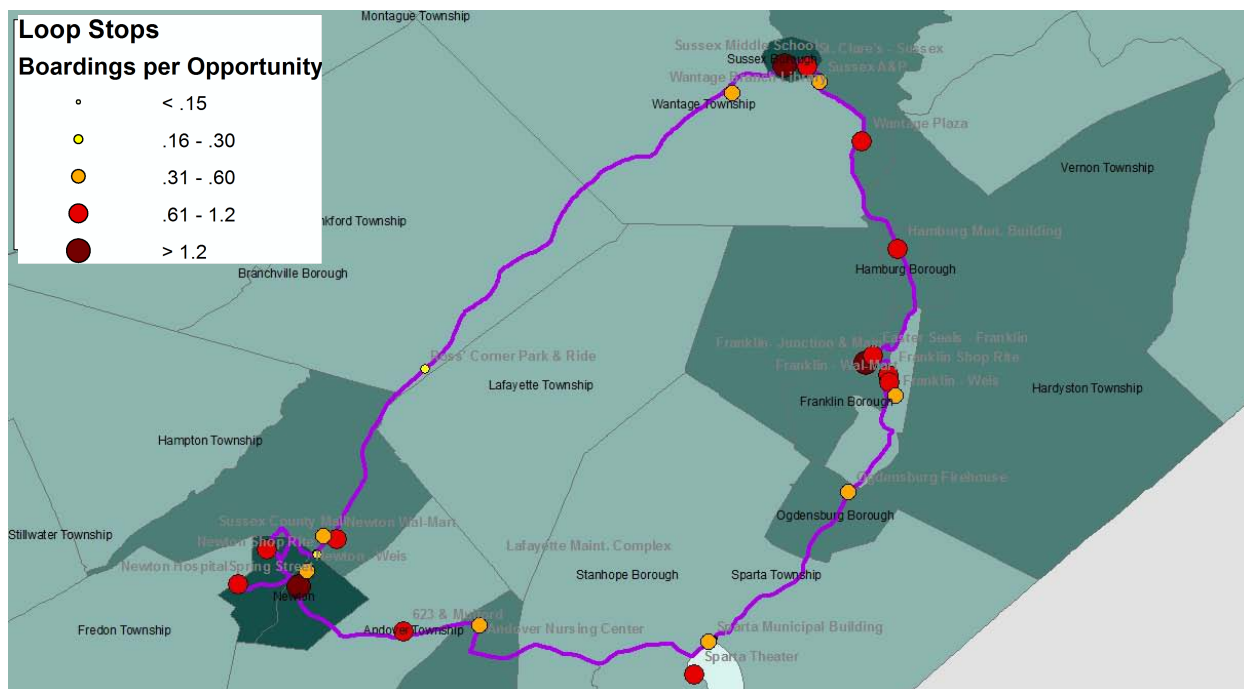
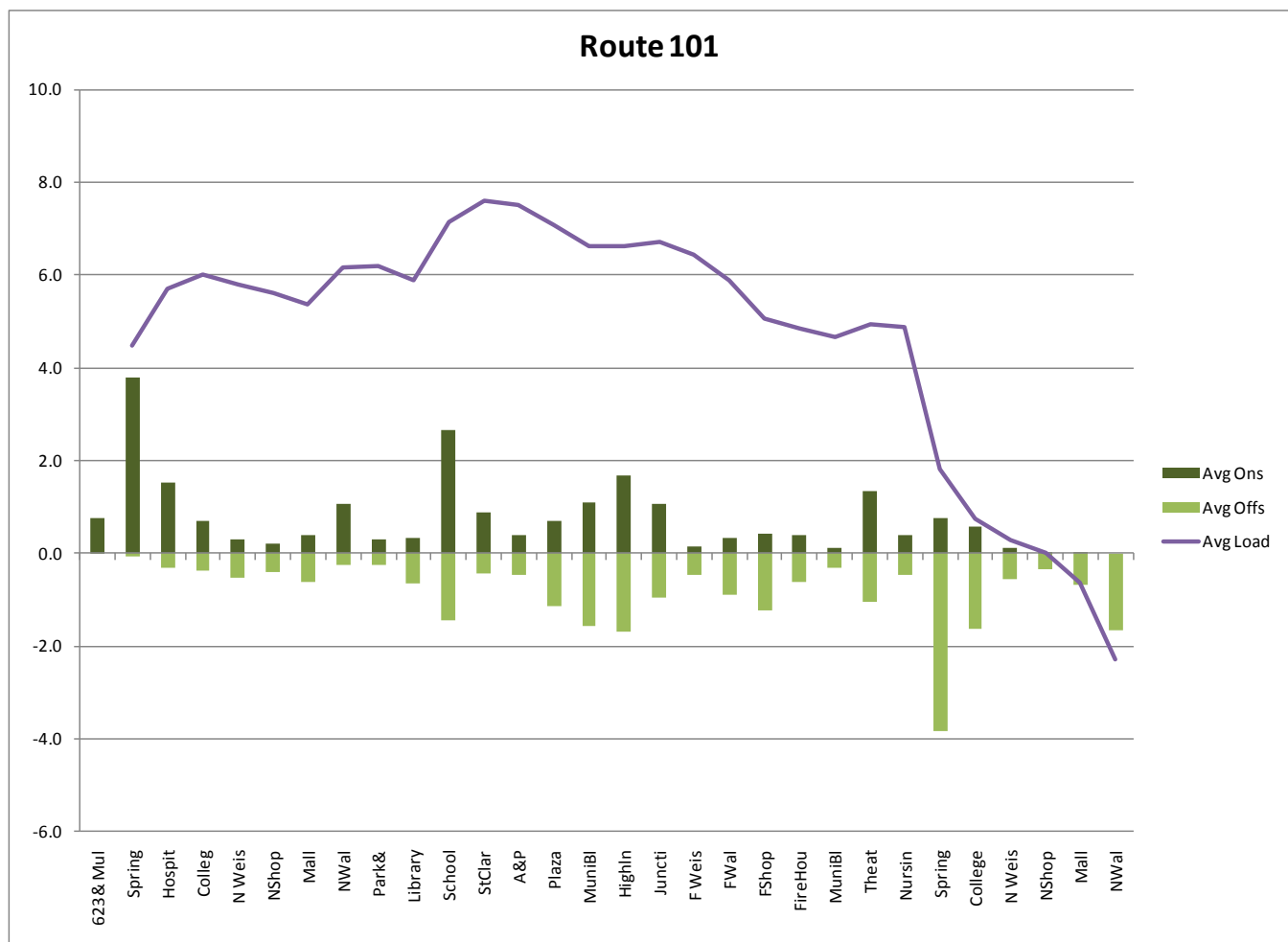


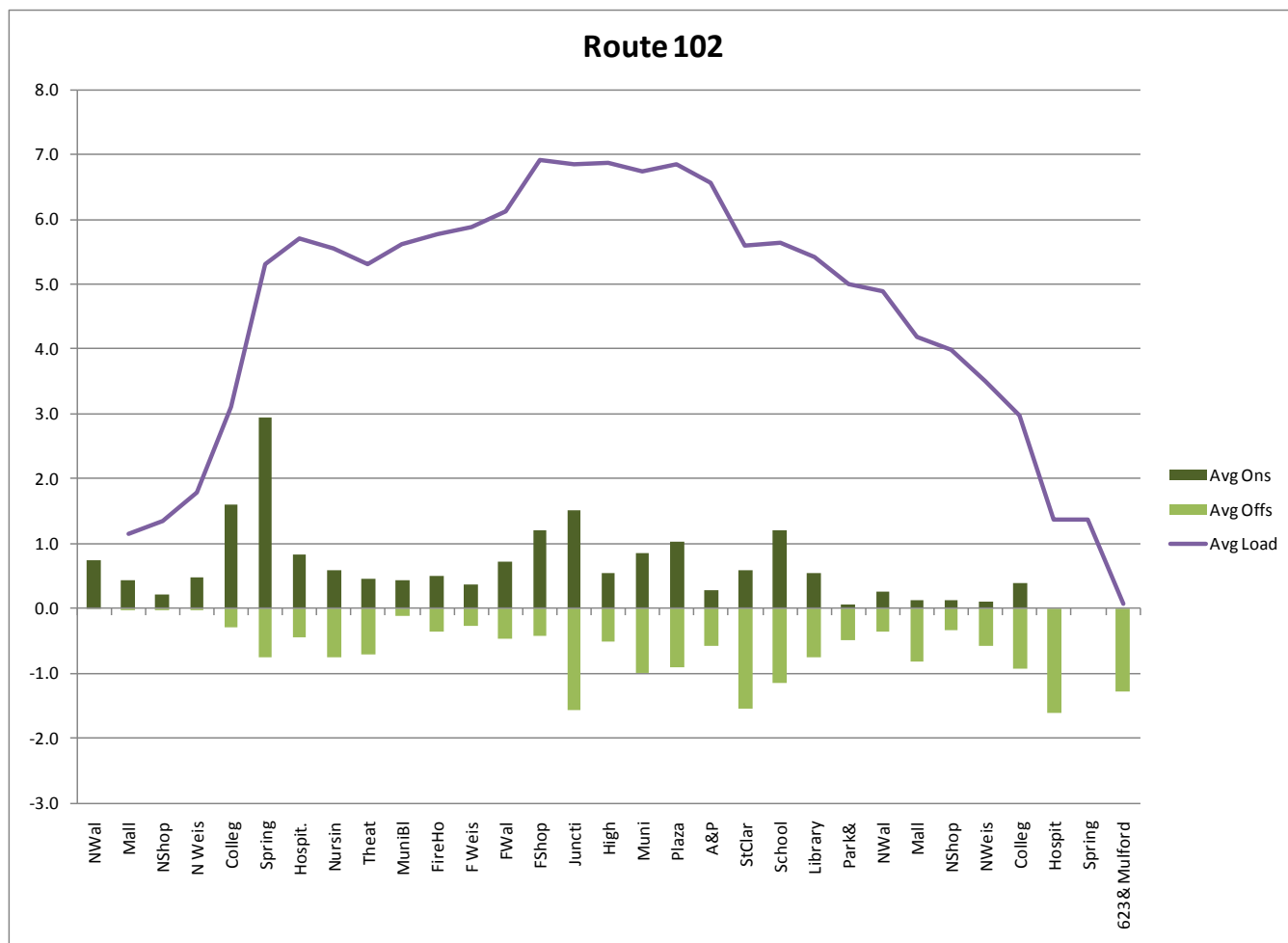
Figure 12 and Figure 13 examine the same 11 days of ridership data by direction. In Figure 12, the average boarding data for each stop is compared to the average alighting data for each stop along Route 101. The same comparison is made for Route 102 in Figure 13. The load volumes (boardings minus alightings) in Figures 12 and 13 are meant to show the level of crowding on the Loop buses as they progress through their route.

Figure 12: Load Profile - Average Boardings - Route 101



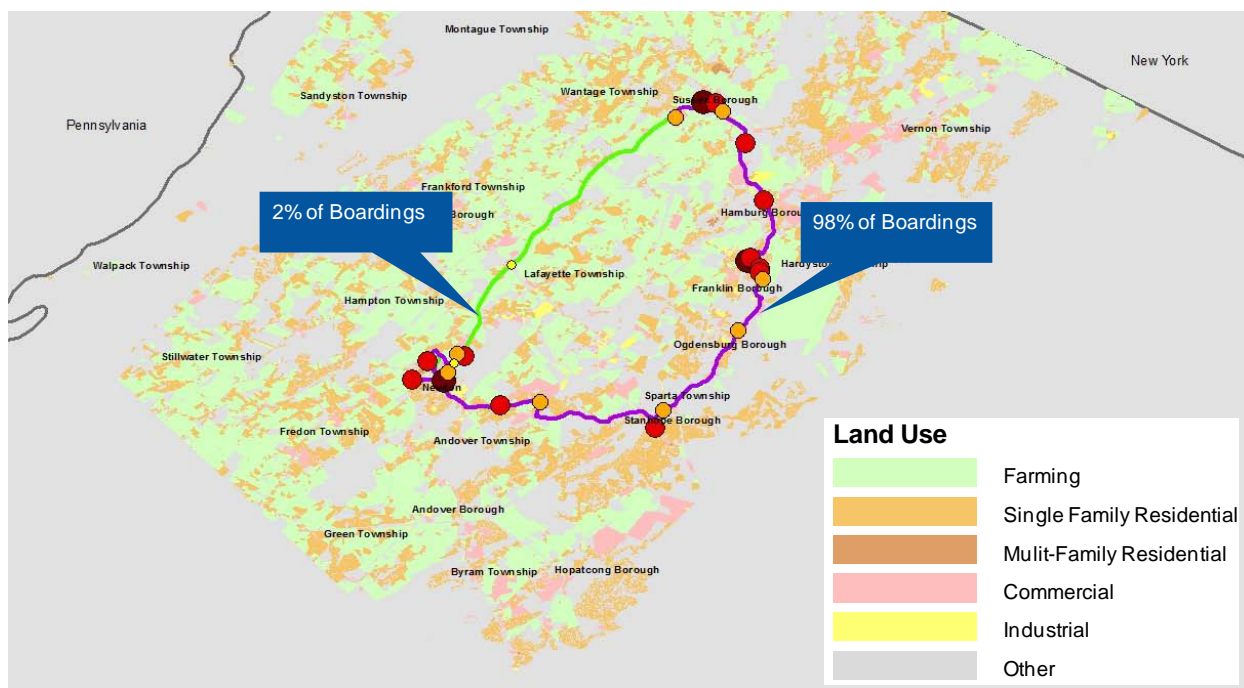
As the Loop buses can accommodate 24 seated passengers (plus one wheelchair), it does not appear that there is currently an overcrowding concern on either Route 101 or 102. The negative load shown on Route 101 is a function of the fact that loop-type service has no clear beginning or end, and in many cases the bus already has passengers on-board before the arbitrarily designated “first” stop of the analysis. When these pre-loaded passengers leave the bus, the result is a cumulative alightings count greater than the boardings count.

Figure 13: Load Profile - Average Boardings - Route 102



The highest ridership activity along the Loop is found along Spring Street in Newton, Main Street in Franklin, and Loomis Avenue in Sussex. On the other hand, the Augusta Park & Ride along Route 206 has extremely low ridership activity. In fact, the western leg of the Loop, between the Newton Wal-Mart and the Sussex Wantage Library represents only 2% of total Loop boardings, while consuming 20 minutes of travel time on each trip. This low ridership is not surprising given the agricultural land use that makes up the bulk of the corridor (Figure 14).

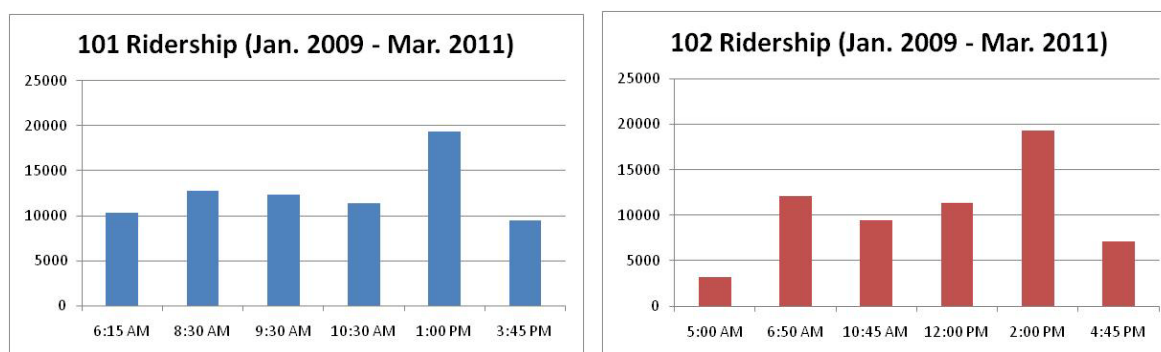
Figure 14: Loop Ridership Distribution and Land Use



While stop-level ridership data is particularly useful in analyzing the routing of a transit service, ridership information by trip can provide insight into the effectiveness of a schedule.

Sussex County Skylands Ride currently provides only six trips per direction on the Loop service. A review of more than two years of trip-level ridership data reveals that the highest ridership trips are in the early afternoon (Figure 15).

Figure 15: Loop Ridership by Trip



As seen in Figures 16 and 17, the Loop trips are not evenly distributed, and large gaps exist where no service is available to passengers for hours at a time.

Figure 16: Distribution of Route 101 Trips<sup>2</sup>

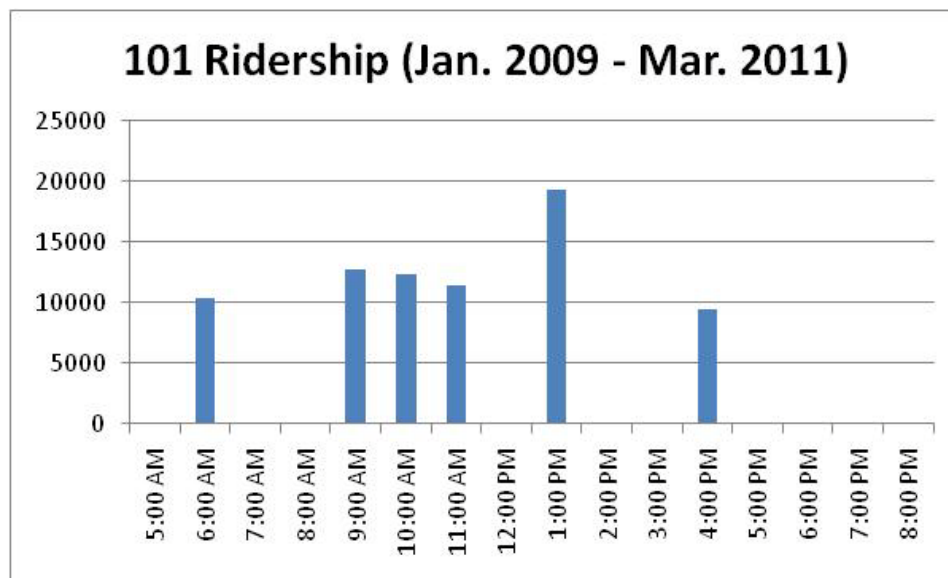
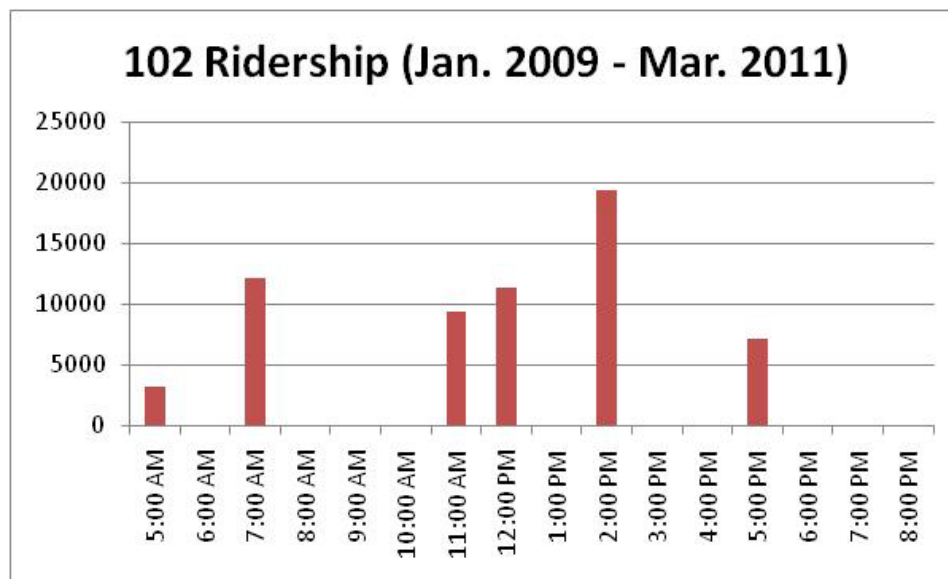


Figure 17: Distribution of Route 102 Trips



From this perspective, it appears that the first trip in the morning on Route 102 is a bit too early to attract many riders, while the elevated level of ridership on the early afternoon trips in both directions is likely the result of the large gaps in service that immediately precede and follow these trips. Passengers may be shying away from the last trip of the afternoon on both routes, because missing the trip would result in being stranded, with no service until the following morning.

<sup>2</sup> Trip departure times rounded to the nearest hour

## Survey Findings

The issues of gaps in service and limited hours of operation show up frequently in the responses of Sussex County residents to surveys regarding transit. Figure 18 shows the top five transit issues that current and prospective transit users have identified in recent years.

**Figure 18: Summary of Transit Survey Findings**

Issue	Survey
1) Limited service locations	<ul style="list-style-type: none"> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan Revision, May 2010</li> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan, October 2008</li> <li>• Sussex County Ten-Year Mobility Study, 2003</li> </ul>
2) Limited hours of service	<ul style="list-style-type: none"> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan Revision, May 2010</li> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan, October 2008</li> <li>• Sussex County Ten-Year Mobility Study, 2003</li> </ul>
3) Lack of knowledge of services available	<ul style="list-style-type: none"> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan Revision, May 2010</li> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan, October 2008</li> <li>• Sussex County Ten-Year Mobility Study, 2003</li> </ul>
4) Service not frequent enough	<ul style="list-style-type: none"> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan Revision, May 2010</li> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan, October 2008</li> <li>• Sussex County Ten-Year Mobility Study, 2003</li> </ul>
5) Limited connections	<ul style="list-style-type: none"> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan Revision, May 2010</li> <li>• Sussex County, Coordinated Public Transit-Human Services Transportation Plan, October 2008</li> </ul>

## Funding Sources

Like all public transportation systems in the United States, Sussex County Skylands Ride relies upon various federal and state funding programs for a large portion of capital, operating, and

administration costs. Remaining costs are typically covered by local funds, passenger fares, and donations.

Skylands Ride's current funding system for 2011 is outlined below in Figure 19.

**Figure 19: Current Skylands Ride Transit Funding Sources**

<b>Program</b>	<b>Federal/ State/Local</b>	<b>Funding Amount (2011)</b>	<b>Description/Purpose</b>
FTA 5310	Federal	---	Capital program to purchase vehicles. This fund is applied for as-needed. In the case of Sussex County, NJ TRANSIT purchases vehicles through 5310 and leases them at no cost to the county.
FTA 5311	Federal	\$349,403	For rural and small urban areas; this is the system's biggest source of funding.
FTA 5316	Federal	\$120,000	For Job Access Reverse Commute; these funds are used to operate demand-response buses who pick up passengers and take them to 101 and 102 for employment access.
FTA 5317	Federal	\$119,280	New Freedom: Sussex County has been awarded a grant in order to transport people to the Netcong rail station. The grant was awarded nearly a year ago, and the county is waiting for all the paperwork to be processed. This new service will be operated on existing vehicles, by existing staff.
Title III - Older Americans Act	Federal	\$84,600	This money is used to transport older adults and includes Medicaid match.
Senior Citizen and Disabled Residents Transportation Assistance Program (SCADRTAP)	State	\$499,630	This program used to be a good source of funding, but it is allocated based on casino revenue; since casino revenue is down, SCADRTAP in turn has decreased.
Medicaid (Title XIX)	State	\$84,504	Skylands Ride provides a livery service on the buses and is reimbursed \$19/ride.
Veterans Affairs	State	\$9,000	This is a very small funding source, and is used to transfer veterans to the VA clinic.

<b>Program</b>	<b>Federal/ State/Local</b>	<b>Funding Amount (2011)</b>	<b>Description/Purpose</b>
Peer Group	State	\$4,000	This is a special fund that is distributed to counties from the state for operation of transit service.
County funds	County	\$325,000	This source of revenue is declining, as the county overall has less funding.
Local funds	Municipal	\$67,000	Currently Vernon and Hardyston Townships have contracts with Skylands Ride for \$50,000 and \$17,000, respectively. These may cease, as the Skylands Ride garage is moving to Hardyston shortly. Also, there is a new mayor in Vernon and the contracts administrator has changed, thus this contract may lapse.
Fares	Local	\$25,000	Passengers pay \$1.00 per fixed-route service (plus an additional \$1.00 for a deviation request) and collect donations for paratransit, effective July 2011.
Highlands Workshop	NGO	\$12/ride	This contract is through the division of vocational rehabilitation.
Dawn & Homestead	NGO	\$15/ride	These two organizations provide additional trips for Skylands Ride, but they are not steady sources of ridership or revenue.



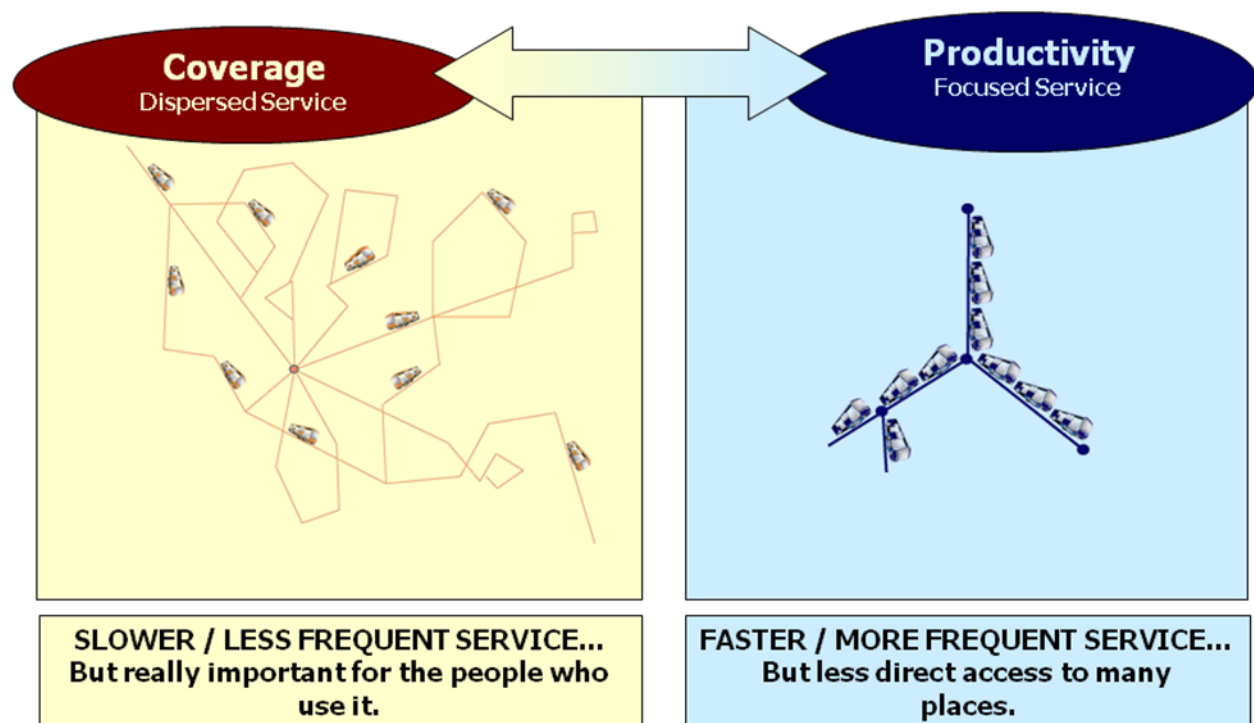
## Chapter 4: Recommendations for Service Improvements

The following chapter will focus on recommendations for improving the transit services offered by Sussex County Skylands Ride. The recommendations are based on the review and analysis of existing Skylands Ride services described in previous chapters, and are designed to directly address each of the five major transit-related issues identified by Sussex County residents.

### Limited Service Locations

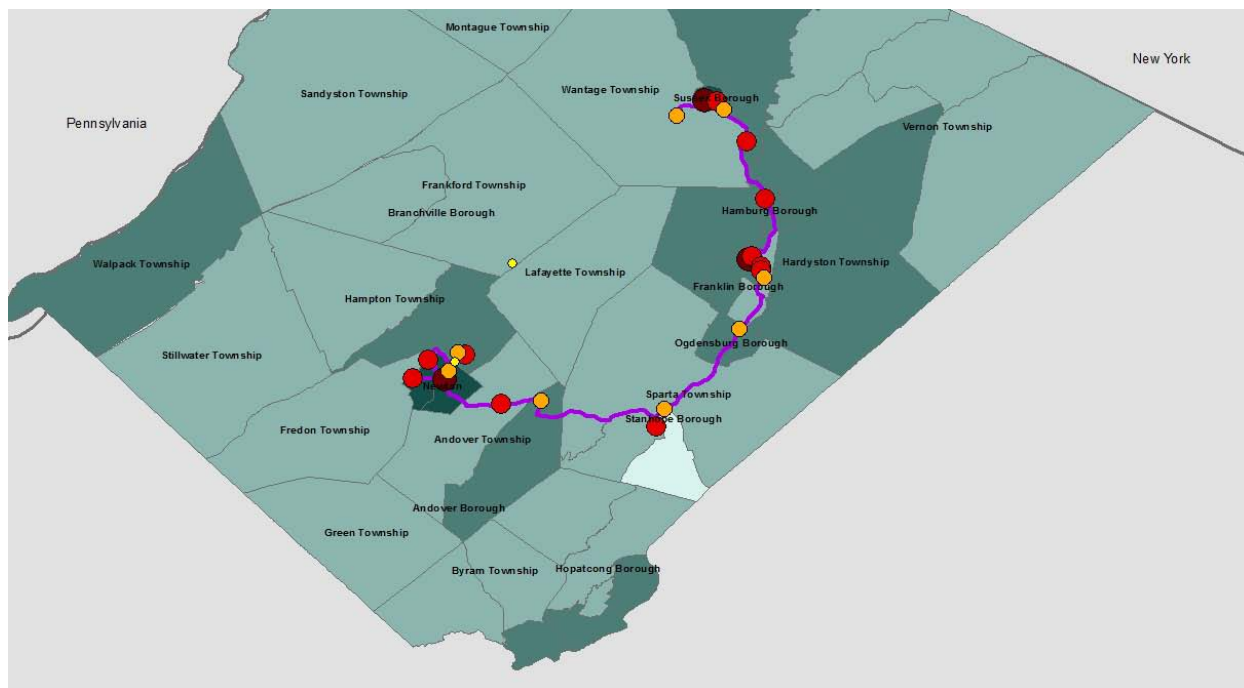
One of the most common dilemmas that all transit systems deal with is finding the proper balance between service coverage and service productivity. Figure 20 illustrates this quandary.

**Figure 20: Service Approaches**



While it is clear that limiting service coverage to a few select corridor results in faster, more frequent service in the corridors served, various demographic, political, and geographic considerations often require a much more dispersed service approach. In Sussex County, 98% of fixed-route ridership is generated in the corridor shown in Figure 21.

**Figure 21: Productive Service Corridor**



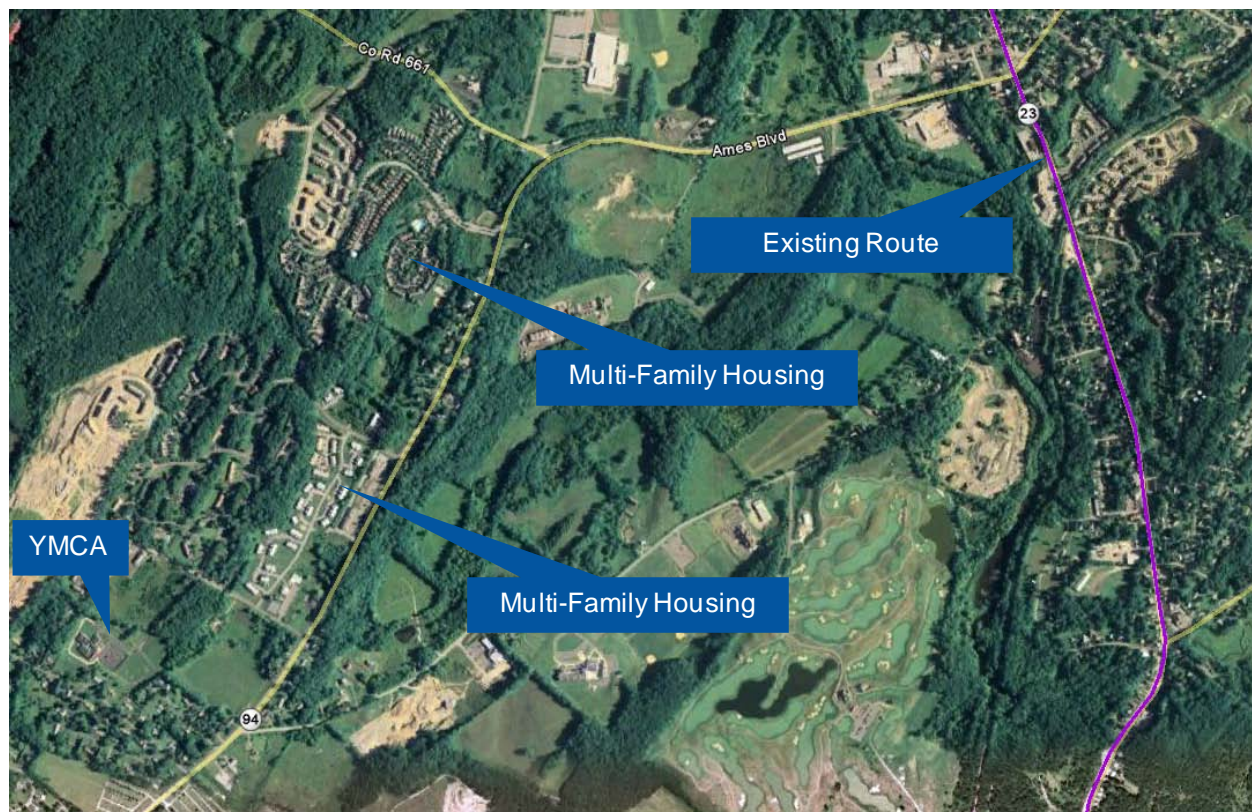
This ridership distribution suggests that the western leg of the current Loop service, which consumes 20 minutes of running time on each trip, may not be well suited for fixed-route service. As discussed previously, the western leg consists primarily of low-density, agricultural land uses.

The elimination of transit service is always a delicate matter, because no matter how few passengers an underperforming segment is attracting, their mobility needs are still worthy of consideration. However, the impact of eliminating unproductive segments of fixed-route service is greatly reduced in Sussex County, by virtue of the demand-responsive “safety net” that exists county-wide.

The elimination of unproductive service along the western leg of the Loop would leave service in place along the most transit-supportive corridor linking Newton and Sussex and would free up resources that could be “re-invested” in areas that are not currently being served, but are good candidates for transit service based on land use and demographics. One such area is the Carlton Village neighborhood in Hamburg, shown in Figure 22.

Buses operating on the transit-supportive corridor can continue to provide deviated fixed-route service, and as will be discussed later in this document, the single corridor will help contribute to the introduction of greater service frequency.

Figure 22: Carlton Village



Carlton Village, which is dense in multi-family housing and anchored by the county's only YMCA has the necessary ingredients to generate strong transit ridership, but it is just beyond walking distance of existing fixed-route transit service. Adding a spur to this area from the existing route alignment will not only make fixed-route transit service accessible to a new pool of prospective passengers, it will also benefit existing riders by adding another important community institution to the list of destination accessible by fixed-route transit.

### Limited Hours of Service

Sussex County Skylands Ride service is currently only available on weekdays from 5:00 a.m. to 6:30 p.m. However, given the length of the Loop route, the last service call for most stops is actually much earlier (Figure 23).

**Figure 23: Loop Schedule**

ROUTE 101							ROUTE 102						
Andover Twp. – Rt. 623 & Mulford	6:15 AM	***	9:30 AM	10:30 AM	***	***	New ton Wal*Mart (Rt. 206)	***	***	10:45 AM	12:00 PM	2:00 PM	***
Spring Street (opp. theater), New ton	6:20 AM	8:30 AM	9:35 AM	10:35 AM	1:00 PM	3:45 PM	Hampton Plaza (Rt. 206)	***	***	10:48 AM	12:03 PM	2:03 PM	***
New ton Hospital (Rt. 94/High St.)	***	8:35 AM	9:40 AM	10:40 AM	1:05 PM	3:51 PM	New ton Shop-Rite (Rt. 206)	***	***	10:51 AM	12:06 PM	2:06 PM	***
Mill St. (High Rise)	***	8:37 AM	9:43 AM	10:43 AM	1:08 PM	3:54 PM	New ton Weis Market (Rt. 206)	***	***	10:53 AM	12:08 PM	2:08 PM	***
*SC Community College (Mill & Plotts)	***	8:40 AM	9:45 AM	10:45 AM	1:10 PM	3:57 PM	Mill St. (High Rise)	***	***	10:54 AM	12:09 PM	2:09 PM	***
Project Self Sufficiency (Mill St.)	***	8:42 AM	9:47 AM	10:47 AM	1:12 PM	3:59 PM	Project Self Sufficiency (Mill St.)	***	***	10:55 AM	12:10 PM	2:10 PM	***
New ton Weis Market (Rt. 206)	***	8:44 AM	9:49 AM	10:49 AM	1:14 PM	4:01 PM	*SC Community College (Mill & Plotts)	5:00 AM	6:50 AM	10:57 AM	12:12 PM	2:12 PM	4:45 PM
New ton Shop-Rite (Rt. 206)	***	8:46 AM	9:51 AM	10:51 AM	1:16 PM	4:03 PM	Spring Street (opp. theater), New ton	5:05 AM	6:55 AM	11:02 AM	12:17 PM	2:17 PM	4:50 PM
Hampton Plaza (Rt. 206)	***	8:49 AM	9:54 AM	10:54 AM	1:19 PM	4:07 PM	New ton Hospital (Rt. 94/High St.)	***	7:00 AM	11:07 AM	12:23 PM	2:23 PM	4:56 PM
New ton Wal*Mart (Rt. 206)	6:25 AM	8:52 AM	9:57 AM	10:57 AM	1:22 PM	4:11 PM	Andover Nursing Home (Rt. 669)	5:13 AM	7:10 AM	11:17 AM	12:33 PM	2:33 PM	5:06 PM
Augusta Park & Ride (Rt. 206)	6:31 AM	9:00 AM	10:05 AM	11:05 AM	1:30 PM	4:20 PM	Sparta Theater (Rt. 181)	***	7:22 AM	11:29 AM	12:45 PM	2:45 PM	5:18 PM
Sussex Wantage Library (Rt. 565)	***	9:10 AM	10:15 AM	11:15 AM	1:40 PM	4:30 PM	Sparta Municipal Building (Rt. 517)	5:25 AM	7:27 AM	11:34 AM	12:50 PM	2:50 PM	5:24 PM
Sussex Middle School (Rt. 639)	6:44 AM	9:13 AM	10:18 AM	11:18 AM	1:43 PM	4:33 PM	Ogdensburg Fire House (Rt. 517)	5:31 AM	7:33 AM	11:40 AM	12:56 PM	2:56 PM	5:30 PM
St. Clare's, Sussex (Walnut St.)	6:46 AM	9:16 AM	10:21 AM	11:21 AM	1:46 PM	4:36 PM	Franklin Weis Market (Rt. 23)	***	***	11:48 AM	1:04 PM	3:04 PM	5:39 PM
A&P at Lakeland Bank (Old Rt. 23)	6:48 AM	9:18 AM	10:23 AM	11:23 AM	1:48 PM	4:38 PM	Franklin Wal*Mart (Rt. 23)	***	7:43 AM	11:50 AM	1:06 PM	3:06 PM	5:41 PM
Wantage Plaza (Rt. 23)	***	9:23 AM	10:28 AM	11:28 AM	1:53 PM	4:44 PM	Franklin Shop-Rite (Rt. 23)	5:39 AM	7:44 AM	11:51 AM	1:07 PM	3:07 PM	5:42 PM
Hamburg Municipal Bldg (Walkill Ave.)	6:58 AM	9:29 AM	10:34 AM	11:34 AM	1:59 PM	4:50 PM	Junction & Main Sts., Franklin	5:43 AM	7:48 AM	11:55 AM	1:11 PM	3:11 PM	5:46 PM
Highlands Workshop, Franklin (Main)	7:05 AM	9:36 AM	10:42 AM	11:42 AM	2:07 PM	4:58 PM	Highlands Workshop, Franklin (Main)	5:44 AM	7:49 AM	11:56 AM	1:12 PM	3:12 PM	5:47 PM
Junction & Main Sts., Franklin	7:06 AM	9:37 AM	10:43 AM	11:43 AM	2:10 PM	4:59 PM	Hamburg Municipal Bldg (Walkill Ave.)	5:50 AM	7:57 AM	12:03 PM	1:20 PM	3:20 PM	5:57 PM
Franklin Weis Market (Rt. 23)	***	9:43 AM	10:49 AM	11:49 AM	2:16 PM	5:05 PM	Wantage Plaza (Rt. 23)	5:55 AM	8:03 AM	12:09 PM	1:26 PM	3:26 PM	6:05 PM
Franklin Wal*Mart (Rt. 23)	***	9:45 AM	10:51 AM	11:51 AM	2:18 PM	5:07 PM	Sussex A&P Plaza (Old Rt. 23)	6:00 AM	8:08 AM	12:14 PM	1:31 PM	3:31 PM	6:10 PM
Franklin Shop-Rite (Rt. 23)	7:10 AM	9:46 AM	10:52 AM	11:52 AM	2:19 PM	5:08 PM	St. Clare's, Sussex (Walnut St.)	6:02 AM	8:10 AM	12:16 PM	1:33 PM	3:33 PM	6:12 PM
Ogdensburg Fire House (Rt. 517)	7:17 AM	9:54 AM	11:00 AM	12:00 PM	2:27 PM	5:16 PM	Sussex Middle School (Rt. 639)	6:05 AM	8:13 AM	12:19 PM	1:36 PM	3:36 PM	6:15 PM
Sparta Municipal Building (Rt. 517)	7:23 AM	10:00 AM	11:06 AM	12:06 PM	2:33 PM	5:22 PM	Sussex Wantage Library (Rt. 565)	6:08 AM	8:16 AM	12:22 PM	1:39 PM	3:39 PM	***
Sparta Theater (Rt. 181)	7:28 AM	10:05 AM	11:11 AM	12:11 PM	2:38 PM	5:28 PM	Augusta Park & Ride (Rt. 206)	6:18 AM	8:28 AM	12:32 PM	1:49 PM	3:49 PM	6:27 PM
Andover Nursing Home (Rt. 669)	7:40 AM	10:17 AM	11:23 AM	12:23 PM	2:50 PM	5:42 PM	New ton Wal*Mart (Rt. 206)	***	8:34 AM	12:40 PM	1:58 PM	3:58 PM	***
Spring Street (opp. theater), New ton	7:47 AM	10:24 AM	11:31 AM	12:31 PM	2:58 PM	5:50 PM	Hampton Plaza (Rt. 206)	***	8:37 AM	12:43 PM	2:01 PM	4:01 PM	***
New ton Hospital (Rt. 94/High St.)	7:52 AM	10:29 AM	11:36 AM	12:37 PM	3:04 PM	***	New ton Shop-Rite (Rt. 206)	***	8:40 AM	12:46 PM	2:04 PM	4:04 PM	***
Mill St. (High Rise)	7:55 AM	10:32 AM	11:39 AM	12:40 PM	3:07 PM	***	New ton Weis Market (Rt. 206)	***	8:42 AM	12:48 PM	2:06 PM	4:06 PM	***
*SC Community College (Mill & Plotts)	7:57 AM	10:35 AM	11:42 AM	12:44 PM	3:10 PM	***	Mill St. (High Rise)	***	8:43 AM	12:49 PM	2:07 PM	4:07 PM	***
Project Self Sufficiency (Mill St.)	***	10:37 AM	11:42 AM	12:46 PM	3:12 PM	***	Project Self Sufficiency (Mill St.)	***	8:44 AM	12:50 PM	2:08 PM	4:08 PM	***
New ton Weis Market (Rt. 206)	***	10:39 AM	11:46 AM	12:48 PM	3:14 PM	***	*SC Community College (Mill & Plotts)	6:28 AM	8:46 AM	12:52 PM	2:10 PM	4:10 PM	***
New ton Shop-Rite (Rt. 206)	***	10:41 AM	11:48 AM	12:50 PM	3:16 PM	***	New ton Hospital (Rt. 94/High St.)	6:33 AM	8:51 AM	12:58 PM	2:15 PM	4:16 PM	***
Hampton Plaza (Rt. 206)	8:02 AM	10:44 AM	11:51 AM	12:51 PM	3:19 PM	***	Spring Street (opp. theater), New ton	6:38 AM	8:57 AM	1:04 PM	2:20 PM	4:22 PM	6:37 PM
New ton Wal*Mart (Rt. 206)	8:05 AM	10:47 AM	11:54 AM	12:54 PM	3:22 PM	***	Rt. 623 & Mulford Rd., Andover Twp.	***	9:03 AM	1:10 PM	2:26 PM	***	***

County residents who would otherwise be interested in commuting by transit may find that Skylands Ride's limited span of service is not compatible with their work hours. These hours of operation are ultimately a function of available funding, and to extend the hours, resources would need to be available to either support another shift or overtime for drivers, supervisors, and dispatchers.

The demand-responsive service would benefit from additional drivers as well, particularly part-time reserve drivers to fill in for regular drivers on vacation or sick-leave. Although 16 demand-responsive vehicles (not including spares) are available for service every weekday, staff shortages make a full pull-out a rare event. Additional drivers could allow for later service as well.

As described in the preceding chapter, Skylands Ride receives funds from a variety of sources, but there may be other federal, state, and local funding resources available to supplement funds already received. The following section describes all funding sources available.

## Federal Programs

In general, Federal Transportation Administration funding programs will pay for up to 80 percent of capital costs and 50 percent of operating, planning, and administration costs. Some funds are formula based, meaning the funds are distributed according to population, while others are competitive grant programs. The next section contains a summary of all FTA programs and the designated recipient, which is the agency who would receive the funds, followed by additional federal programs that can be used for transit.

Additional grants are described below.

- **FTA 5307 Operating Grants.** Part of Sussex County is a Census designated urbanized area, according to the 2000 Census. With careful branding, the proposed demand-



response connection to Netcong rail station may be eligible for 5307 funding as an urban service. Initially these trips would be funded through the New Freedom grant, but once these funds are drawn down, the service may qualify for FTA 5307 funds.

- **Safe Routes to School.** New Jersey received \$5.58 million in FY 2011 under this federal program; funds are apportioned to states for distribution.<sup>3</sup> Safe Routes to School programs enable and encourage children to walk and bike to school. However, improvements to sidewalks and crossings that are along transit routes and also are school routes can be made under this program. The result can be safer path from neighborhoods to schools, and better access to transit stops at the same time.
- **Surface Transportation Program.** This federal fund authorized under SAFETEA-LU can be used for a wide variety of projects, including road improvements, bicycle facilities, updating infrastructure to ADA standards, or building sidewalks. Counties can be a local lead and receive STP funds directly, as long as the project has been vetted through NJTPA.
- **Transportation Enhancements.** Ten percent of STP funds are set aside for Transportation Enhancement projects, which are geared toward improving the aesthetic and environmental aspects of transportation. TE projects must fall under one of 12 eligible categories.<sup>4</sup> In FY 2010, New Jersey was appropriated \$19.3 million in TE funds. Sussex County received two TE grants: One for Hopatcong Road Beautification (\$252,000) and a second for Newton Sidewalks (\$117,000). Other uses for TE funds relevant to this study might include bus stop signage and pedestrian wayfinding, creating a downtown transit station with passenger amenities, or for station area beautification around the future Andover rail station.

### *State Programs*

Sussex County already receives some funds from the Municipal Aid Grant (\$1.75 million for FY 2011) and County Aid Grant (\$1.87 million in FY 2009). These grants primarily encompass roadway improvements, but some are also geared at pedestrian improvements and streetscaping. Additional grants are described below. All are funded through the New Jersey Transportation Trust Fund. Although these funds do not specifically support transit operations, they can improve the walking and cycling experience, which in turn increases the attractiveness and usability of bus service.

- **Safe Streets to Transit Grant.** This program funds improvements that make walking and cycling to transit safe and attractive. A sample project is the Main Street sidewalk construction in Middle Township for \$200,000, and pedestrians safety improvements in Linwood City for \$209,000.
- **Centers of Place Grant.** This program funds non-traditional transportation improvements that advance smart growth. Sussex County has two centers: Newton and Branchville. A sample project is a Streetscape plan in Allentown Borough for \$200,000.
- **Transit Village Grant.** This program requires certification as a transit village by NJDOT. Grants may be used for non-traditional transportation-related projects, and could be used for transit-oriented development around Andover station. A sample project is the Cranford North Avenue station plaza pedestrian safety improvement for \$500,000.

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<sup>3</sup> [http://apps.saferoutesinfo.org/legislation\\_funding/state\\_apportionment.cfm](http://apps.saferoutesinfo.org/legislation_funding/state_apportionment.cfm)

<sup>4</sup> List can be found here: <http://www.state.nj.us/transportation/business/localaid/enhancements.shtm>

### *Other Sources*

- **Fares.** The voluntary donations for demand-responsive service should be replaced with a published fare system to control demand and maintain a revenue stream for the service. This fare system has been approved and is pending implementation. However, discounted fares for fixed-route service should be offered to senior citizens, children, and other special-needs groups to encourage the utilization of the service versus over-reliance on demand-responsive service.
- **Multi-Ride Passes.** Skylands Ride should consider offering a monthly pass for regular users. Passengers appreciate the convenience of multi-use passes and the passes encourage increased use of the service because the service is paid for. The cost of a monthly pass is typically set at the cost of 40 round trips, or four weeks of commuting. Ten-ride Tickets could also be offered as a way to sell transit rides not only to individuals but also to social services agencies who could distribute them to clients. A multi-ride pass should be implemented on the demand-response service pending approval of a set fare system.
- **Universal Passes.** Related to diversifying and expanding Skylands Rides' fare options, there are also opportunities to create universal pass programs with the county's largest employers, institutions and organizations. Universal pass programs are typically structured so that an employer or institution pays a lump sum amount to provide a transit pass to every employee or student. The cost per pass is generally discounted significantly from the cost of purchasing an equivalent number of individual passes. This approach, which has been successful around the country, offers employers a mechanism to promote the use of public transportation at a relatively low cost. The intention of the program is to make transit more convenient – individuals have a pass and there is no cost – so that they will start to use the bus for occasional trips. Once people try riding the bus, they often transition to more regular riders. As a result, transit ridership should increase over time.
- **Access Alternative Funding Streams.** Work with relevant New Jersey agencies to access and maximize funds from programs such as Temporary Assistance for Needy Families, Senior Community Service Employment Program, and Workforce Investment Act funds.<sup>5</sup>
- **Advertising Revenue.** Expand advertising program.
- **Explore the "Additional Programs".** Viewed as atypical funding streams for transit, several of the federal and state programs above may be used for village renovations and improvements, station area planning (especially for the new Andover station), and general walkability and bikeability projects.

Further descriptions and eligibility information of federal and state programs can be found in Appendix B.

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<sup>5</sup> The Community Transportation Association of America published a guide to funding sources located here: <http://www.ctaa.org/webmodules/webarticles/articlefiles/fedinvest.gd.pdf>

## Lack of Knowledge of Services Available

People often do not take transit because they do not know how to find information on it or how to use it. A successful marketing and branding strategy can eliminate these barriers and make the service accessible and attractive for all.

The most recent survey of residents in Sussex proved this very point: one of the top five issues identified is that there is not enough information available on Skylands Ride. People do not know where to wait for the bus, when it is coming, where it is going. These are major barriers to access that need to be eliminated in order to suitably serve local residents.

The following describes strategies to improve the marketing and branding of Skylands Ride. Strategies are often most effective in tandem, but not all strategies need to be implemented at once.

### Name of Service

The names of service play an important role in distinguishing the service from others, and also in signaling the type of transit service that is being offered. Clarity in name and brand help make the services offered more identifiable and understandable.

Currently, Skylands Ride brands its fixed-route service as Route 101 and 102. The service is more commonly referred to as the “Loop”, which makes sense as the service runs in a Loop between Newton and Sussex. If, as recommended, the Loop is replaced with a corridor service, the name of the service would need to be changed as well. One option would be “Skylands Connect,” as the service connects communities along the corridor between Sussex and Newtown. In keeping with this naming convention, the demand-responsive service could be branded Skylands Request. This would allow both services to be identified as part of the Skylands Ride family, while also reflecting the unique role of each.

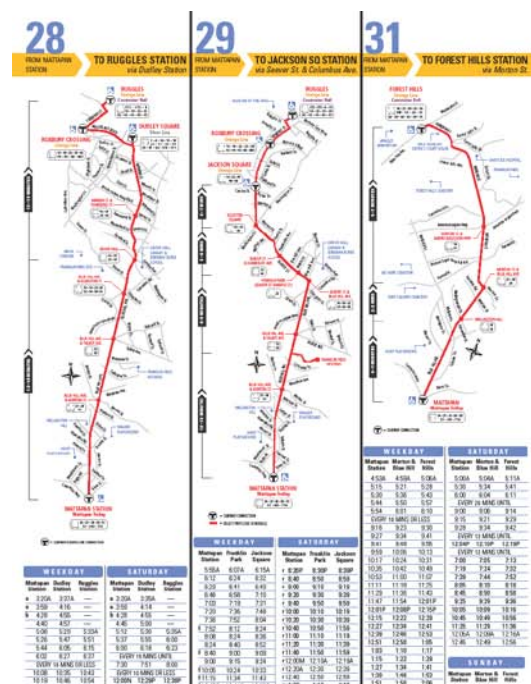
### Marketing Materials

The recommended changes to Skylands Ride routes and schedules present an opportunity for to reexamine the marketing and informational materials that passengers rely upon and prospective passengers refer to when making their travel plans.

Printed schedules, the most basic element of passenger information, should be formatted and packaged in such a way as to be easy to read and easy to carry. For example, tri-fold brochures are far more convenient to carry in a pocket or purse than an 8.5 x 11 sheet of paper. Also, for a fixed-route service, showing a route map along with the time tables can greatly increase the compressibility of the schedule (Figure 24).

In the modern era, it is important to design passenger schedules that are as easy to read online as they are in hard copy. Indeed, customers viewing schedule or other

Figure 24: Schedules with Route Maps



marketing material online will often print the documents out on their own printer, so this too must be considered in the design of the passenger information pieces.

Keeping information as up to date as possible is of utmost importance to riders. Putting a date on printed materials and the website (e.g. "Updated October 2011"), shows riders that information is current.

Skylands Ride may also consider revising its current Customer Guide to include information on both Skylands Ride and other transit providers serving the county. This should include a "how to ride" section and FAQs about using public transportation in general. The guide, system map, and schedule should be available for download online and in print form at major destinations in the county, including municipal buildings, senior centers, hospitals, educational institutions, and commercial centers.

Finally, Skylands Ride should continue to make every effort to join the growing number of transit systems that have made their transit data available to the public through the Google Transit Partners Program (Figure 25). Google Transit is a powerful trip planning and online mapping tool that can improve the transit experience of existing riders and make transit options known to a new market of potential riders. Google's free trip planner presents transit users (and prospective users) with an online tool similar to the driving directions that so many internet users are already familiar with. Google Transit makes public transportation easy to navigate and removes an element of the unknown that acts as a barrier for many potential transit riders. Users can access Google Transit data on any internet-enabled device including hand-held mobile devices. Most importantly, the service is free to both transit providers and users.

**Figure 25: Google Transit**

The trip planner will show you an itinerary with walking and transfer directions as necessary...

**Transit directions to Enterprise Plus High School**

Showing Trip 1: Travel time: about 1 hour 2 mins  
Cost: \$1.50 (vs. \$1.31 driving)

- Walk to Dana (Discovery Village)  
About 7 mins
- Show details
- Bus - 6 - Direction: Downtown Transit Center  
Served by the Redding Area Bus Authority. Info: 503.247.2872  
12:30pm Depart Dana (Discovery Village)  
33 mins  
1:03pm Arrive Victor at Hatfield (southwest corner)
- Walk to 3411 Chun Creek Rd  
About 20 mins
- Show details
- Enterprise Plus High School  
3411 Chun Creek Rd  
Redding, CA 96002

**Local agency information:**  
Contains more information on fares, schedules, and service advisories.  
[Redding Area Bus Authority](#)

These directions are for planning purposes only. You may find that construction projects, traffic, weather, or other events may cause conditions to differ from the map results, and you should plan your route accordingly. You must stay alert and follow all rules and regulations regarding your route.  
Map data ©2009, ©2010, ©2011



### *Branding of Vehicles*

The current branding of Skylands Ride vehicles is both modest and inconsistent. New vehicles are branded with a simple county logo, while older vehicles have a variety of paint schemes. Consistent and highly visible vehicle branding can raise awareness of transit service in a community, while also improving its image. A successful brand and logo can also help tie together a variety of marketing elements including vehicles, signs, printed materials, and websites, making it clear to novice users that the elements all go together.

For experienced transit users, maintaining clear and visible head-signs is very important. As Skylands Ride has both fixed-route and demand-responsive vehicles that sometimes operate in close proximity, distinct informational head-signs can help reduce confusions among passengers regarding the role of an approaching bus.

### *Passenger Amenities*

Regular bus riders know that there is more to a journey on public transit than just riding on the bus. A passenger needs to get to the bus stop, wait for the bus, get on the bus, and then upon alighting, needs to get to their final destination. The availability of passenger amenities improves the entire transit experience, and can serve to raise the profile of transit in a community.

While buses are always on the move and may or may not be seen by the non-riding public, passenger amenities serve as a static and permanent symbol of transit's availability. When well kept, passenger amenities serve as an advertisement for the high quality of service offered by a transit provider. Skylands Ride would certainly benefit from the added exposure of passenger amenities, and Sussex County passengers would benefit from the added comfort and shelter from the weather.

## Service not Frequent Enough

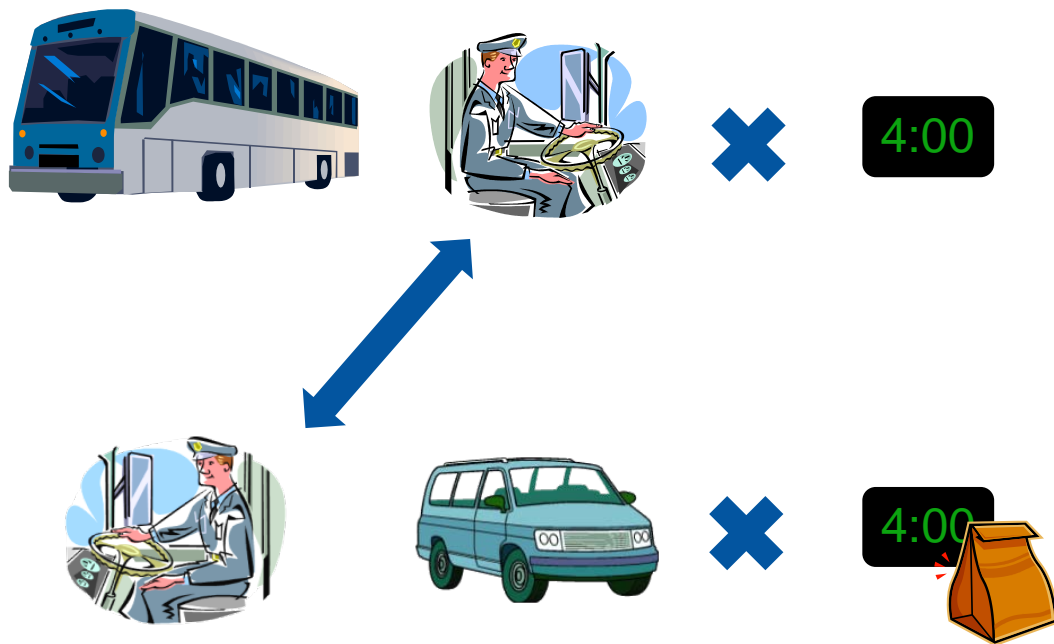
The current operating procedure for Sussex County Skylands Ride is that a driver that pulls a transit vehicle out of the yard, stays with that vehicle until it is returned to the yard at the end of the driver's shift. When a driver goes on break, the transit vehicle becomes unavailable for passenger service.

For demand-responsive service, the impact of such an arrangement on passengers is minimal. Demand-responsive trips are generally scheduled in advance, and pick-up times can be negotiated to accommodate drivers' breaks. In addition, the relatively large Skylands Ride demand-responsive fleet allows for flexibility in scheduling, and if one vehicle is not available because of a driver's break, another vehicle may be dispatched to perform the trip.

However, with fixed-route service, any interruption in service translates directly into reduced service frequency for passengers. Thus, it is critical to find a way to keep the fixed-route vehicles in service, while still allowing drivers to take their necessary break-time. This can be accomplished by having drivers switch between fixed-route and demand-responsive service and limiting lunch breaks to when each driver is in the demand-responsive portion of their shift.

This arrangement is illustrated in Figure 26 below and further described in Appendix C.

Figure 26: Fixed-Route and Demand-Responsive Driver Switch



A driver who begins their shift on fixed-route service would drive for about four hours, and then be met in the field by a demand-responsive vehicle and driver. The two drivers would switch vehicles and drive for another four hours on the other service. The driver who was originally on demand-responsive service would take a lunch break before the switch, while the driver who was originally on fixed-route service would take a lunch break after the switch.

By de-coupling the driver from the vehicle, Skylands Ride could nearly double the number of trips available to passengers in each direction. Irregular service frequency would be eliminated, and buses would arrive once every hour and 15 minutes in each direction (Figure 27).

## Figure 27: Proposed Fixed-Route Schedule

Southbound												
Sussex Wantage Library (Rt. 565)			5 50 AM	7 05 AM	8:20 AM	9:35 AM	10 50 AM	12:05 PM	1:20 PM	2 35 PM	3 50 PM	5:05 PM
Sussex Middle School (Rt. 639)			5 53 AM	7 08 AM	8:23 AM	9:38 AM	10 53 AM	12:08 PM	1:23 PM	2 38 PM	3 53 PM	5:08 PM
St. Clare's, Sussex (Walnut St.)			5 56 AM	7:11 AM	8:26 AM	9:41 AM	10 56 AM	12:11 PM	1:26 PM	2:41 PM	3 56 PM	5:11 PM
A&P at Lakeland Bank (Old Rt. 23)			5 58 AM	7:13 AM	8:28 AM	9:43 AM	10 58 AM	12:13 PM	1:28 PM	2:43 PM	3 58 PM	5:13 PM
Wantage Plaza (Rt. 23)			6 03 AM	7:18 AM	8:33 AM	9:48 AM	11 03 AM	12:18 PM	1:33 PM	2:48 PM	4 03 PM	5:18 PM
Hamburg Municipal Bldg (Walkill Ave.)			6 09 AM	7 24 AM	8:39 AM	9:54 AM	11 09 AM	12:24 PM	1:39 PM	2 54 PM	4 09 PM	5:24 PM
YMCA		5:00 AM	6:15 AM	7 30 AM	8:45 AM	10:00 AM	11:15 AM	12:30 PM	1:45 PM	3 00 PM	4:15 PM	5:30 PM
Highlands Workshop, Franklin (Main)		5:13 AM	6 28 AM	7:43 AM	8:58 AM	10:13 AM	11 28 AM	12:43 PM	1:58 PM	3:13 PM	4 28 PM	5:43 PM
Junction & Main Sts., Franklin		5:14 AM	6 29 AM	7:44 AM	8:59 AM	10:14 AM	11 29 AM	12:44 PM	1:59 PM	3:14 PM	4 29 PM	5:44 PM
Franklin Weis Market (Rt. 23)		5:20 AM	6 35 AM	7 50 AM	9:05 AM	10:20 AM	11 35 AM	12:50 PM	2:05 PM	3 20 PM	4 35 PM	5:50 PM
Franklin Wal*Mart (Rt. 23)		5:22 AM	6 37 AM	7 52 AM	9:07 AM	10:22 AM	11 37 AM	12:52 PM	2:07 PM	3 22 PM	4 37 PM	5:52 PM
Franklin Shop-Rite (Rt. 23)		5:23 AM	6 38 AM	7 53 AM	9:08 AM	10:23 AM	11 38 AM	12:53 PM	2:08 PM	3 23 PM	4 38 PM	5:53 PM
Ogdensburg Fire House (Rt. 517)		5:31 AM	6:46 AM	8 01 AM	9:16 AM	10:31 AM	11:46 AM	1:01 PM	2:16 PM	3 31 PM	4:46 PM	6:01 PM
Sparta Municipal Building (Rt. 517)		5:37 AM	6 52 AM	8 07 AM	9:22 AM	10:37 AM	11 52 AM	1:07 PM	2:22 PM	3 37 PM	4 52 PM	6:07 PM
Sparta Theater		5:42 AM	6 57 AM	8:12 AM	9:27 AM	10:42 AM	11 57 AM	1:12 PM	2:27 PM	3:42 PM	4 57 PM	6:12 PM
Andover Nursing Home (Rt. 669)		5:54 AM	7 09 AM	8 24 AM	9:39 AM	10:54 AM	12 09 PM	1:24 PM	2:39 PM	3 54 PM	5 09 PM	
Hampton & Trinity		6:02 AM	7:17 AM	8 32 AM	9:47 AM	11:02 AM	12:17 PM	1:32 PM	2:47 PM	4 02 PM	5:17 PM	
New ton Memorial Hospital		6:08 AM	7 23 AM	8 38 AM	9:53 AM	11:08 AM	12 23 PM	1:38 PM	2:53 PM	4 08 PM	5 23 PM	
Mill Street (Highrise)		6:11 AM	7 26 AM	8:41 AM	9:56 AM	11:11 AM	12 26 PM	1:41 PM	2:56 PM	4:11 PM	5 26 PM	
Project Self Sufficiency		6:13 AM	7 28 AM	8:43 AM	9:58 AM	11:13 AM	12 28 PM	1:43 PM	2:58 PM	4:13 PM	5 28 PM	
Sussex Community College		6:15 AM	7 30 AM	8:45 AM	10:00 AM	11:15 AM	12 30 PM	1:45 PM	3:00 PM	4:15 PM	5 30 PM	
New ton Weis Market (Rt. 206)		6:18 AM	7 33 AM	8:48 AM	10:03 AM	11:18 AM	12 33 PM	1:48 PM	3:03 PM	4:18 PM	5 33 PM	
New ton Shop-Rite (Rt. 206)		6:20 AM	7 35 AM	8 50 AM	10:05 AM	11:20 AM	12 35 PM	1:50 PM	3:05 PM	4 20 PM	5 35 PM	
New ton Wal*Mart (Rt. 206)		6:22 AM	7 37 AM	8 52 AM	10:07 AM	11:22 AM	12 37 PM	1:52 PM	3:07 PM	4 22 PM	5 37 PM	
Hampton Plaza (Rt. 206)		6:24 AM	7 39 AM	8 54 AM	10:09 AM	11:24 AM	12 39 PM	1:54 PM	3:09 PM	4 24 PM	5 39 PM	
Northbound												
Hampton Plaza (Rt. 206)			6:24 AM	7 39 AM	8 54 AM	10:09 AM	11:24 AM	12 39 PM	1:54 PM	3:09 PM	4 24 PM	5 39 PM
Sussex Community College			6:27 AM	7:42 AM	8 57 AM	10:12 AM	11:27 AM	12:42 PM	1:57 PM	3:12 PM	4 27 PM	5:42 PM
Project Self Sufficiency (ON DEMAND ONLY)			6:29 AM	7:44 AM	8 59 AM	10:14 AM	11:29 AM	12:44 PM	1:59 PM	3:14 PM	4 29 PM	5:44 PM
Mill Street (Highrise)			6:31 AM	7:46 AM	9 01 AM	10:16 AM	11:31 AM	12:46 PM	2:01 PM	3:16 PM	4 31 PM	5:46 PM
New ton Memorial Hospital			6:36 AM	7 51 AM	9 06 AM	10:21 AM	11:36 AM	12 51 PM	2:06 PM	3:21 PM	4 36 PM	5 51 PM
Hampton & Trinity			6:42 AM	7 57 AM	9:12 AM	10:27 AM	11:42 AM	12 57 PM	2:12 PM	3:27 PM	4:42 PM	5 57 PM
Andover Nursing Home (Rt. 669)			6:52 AM	8 07 AM	9 22 AM	10:37 AM	11:52 AM	1 07 PM	2:22 PM	3:37 PM	4 52 PM	6 07 PM
Sparta Theater			7:04 AM	8:19 AM	9 34 AM	10:49 AM	12:04 PM	1:19 PM	2:34 PM	3:49 PM	5 04 PM	6:19 PM
Sparta Municipal Building (Rt. 517)			7:09 AM	8 24 AM	9 39 AM	10:54 AM	12:09 PM	1 24 PM	2:39 PM	3:54 PM	5 09 PM	6 24 PM
Ogdensburg Fire House (Rt. 517)			7:15 AM	8 30 AM	9:45 AM	11:00 AM	12:15 PM	1 30 PM	2:45 PM	4:00 PM	5:15 PM	6 30 PM
Franklin Weis Market (Rt. 23)			7:23 AM	8 38 AM	9 53 AM	11:08 AM	12:23 PM	1 38 PM	2:53 PM	4:08 PM	5 23 PM	6 38 PM
Franklin Wal*Mart (Rt. 23)			7:25 AM	8:40 AM	9 55 AM	11:10 AM	12:25 PM	1:40 PM	2:55 PM	4:10 PM	5 25 PM	6:40 PM
Franklin Shop-Rite (Rt. 23)			7:26 AM	8:41 AM	9 56 AM	11:11 AM	12:26 PM	1:41 PM	2:56 PM	4:11 PM	5 26 PM	6:41 PM
Junction & Main Sts., Franklin			7:30 AM	8:45 AM	10 00 AM	11:15 AM	12:30 PM	1:45 PM	3:00 PM	4:15 PM	5 30 PM	6:45 PM
Highlands Workshop, Franklin (Main)			7:31 AM	8:46 AM	10 01 AM	11:16 AM	12:31 PM	1:46 PM	3:01 PM	4:16 PM	5 31 PM	6:46 PM
YMCA	6:30 AM		7:45 AM	9 00 AM	10:15 AM	11:30 AM	12:45 PM	2 00 PM	3:15 PM	4:30 PM	5:45 PM	
Hamburg Municipal Bldg (Walkill Ave.)	6:36 AM		7:51 AM	9 06 AM	10 21 AM	11:36 AM	12:51 PM	2 06 PM	3:21 PM	4:36 PM		
Wantage Plaza (Rt. 23)	6:42 AM		7:57 AM	9:12 AM	10 27 AM	11:42 AM	12:57 PM	2:12 PM	3:27 PM	4:42 PM		
Sussex A&P Plaza (Old Rt. 23)	6:47 AM		8:02 AM	9:17 AM	10 32 AM	11:47 AM	1:02 PM	2:17 PM	3:32 PM	4:47 PM		
St. Clare's, Sussex (Walnut St.)	6:49 AM		8:04 AM	9:19 AM	10 34 AM	11:49 AM	1:04 PM	2:19 PM	3:34 PM	4:49 PM		
Sussex Middle School (Rt. 639)	6:52 AM		8:07 AM	9 22 AM	10 37 AM	11:52 AM	1:07 PM	2 22 PM	3:37 PM	4:52 PM		
Sussex Wantage Library (Rt. 565)	6:55 AM		8:10 AM	9 25 AM	10:40 AM	11:55 AM	1:10 PM	2 25 PM	3:40 PM	4:55 PM		

### Limited Connections

As mentioned previously, Skylands Ride can afford to be selective on where fixed-route service is deployed because a county-wide demand-responsive service is available to passengers as well. In fact, in some cases demand-responsive trips were permitted to destinations outside of Sussex County. For the most part, these out-of-county trips were for medical appointments in Morris County. As the availability of medical services in Sussex County continues to increase, the justification for these trips has waned. This creates another opportunity for Skylands Ride to evaluate the best use of its resources.

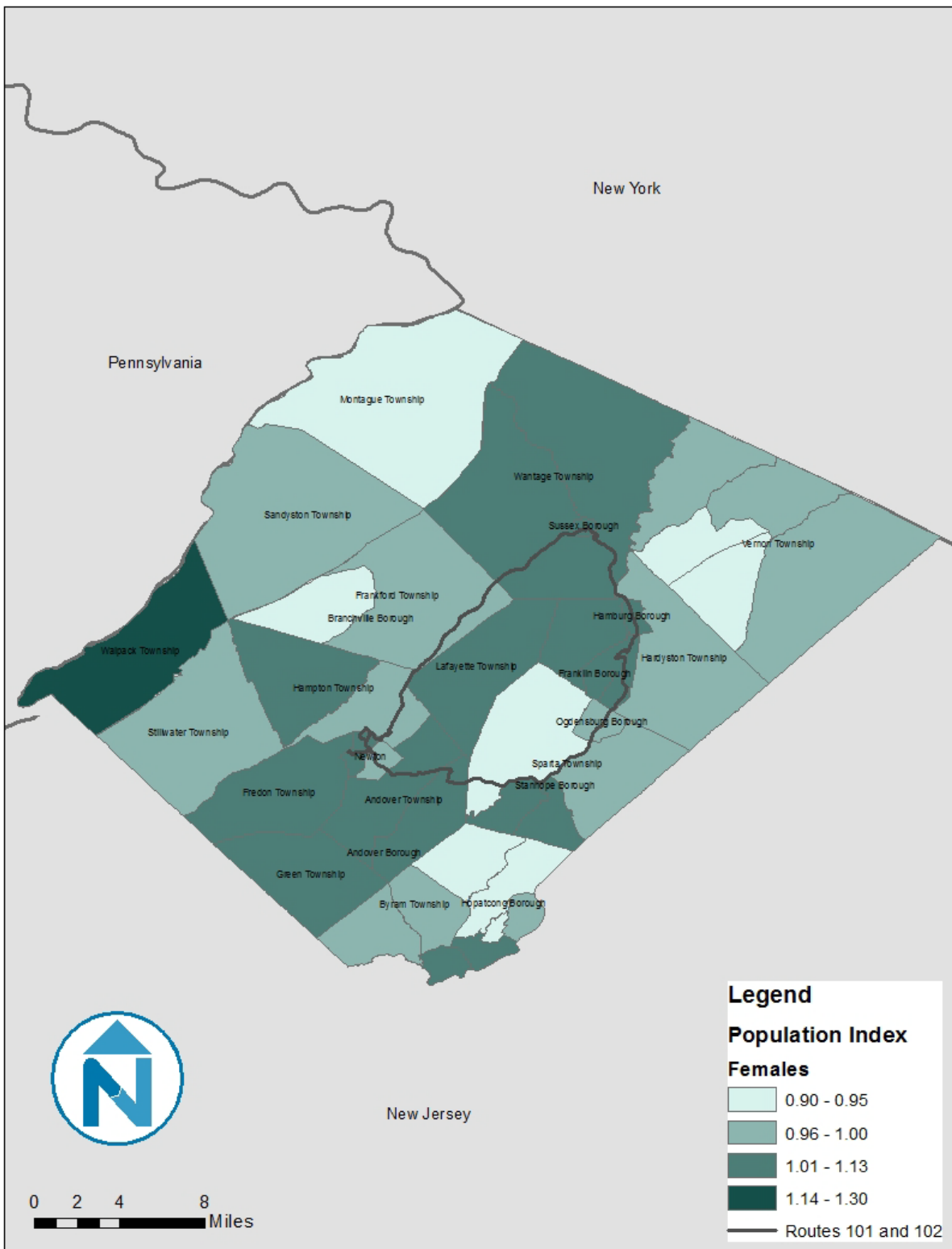
Recently, Sussex County Skylands Ride was awarded a New Freedom grant to increase transit service availability to NJ TRANSIT's Netcong rail station. Currently, the station is served from various points in Sussex County by the private carrier Lakeland Bus Lines. However, the Lakeland service is designed exclusively for commuters who travel out of Sussex County in the mornings (toward New York City) and return in the afternoon. No service is available for "reverse commuters" wishing to travel to jobs in Sussex County via public transportation. Additionally, Lakeland Buses are not wheelchair accessible, making them inaccessible to passengers with certain disabilities.

Skylands Ride can effectively expand accessibility to and from the Netcong rail station by designating it as an approved destination for demand-responsive service. Sussex County residents would be able to schedule a trip to the station as they would for any destination in the county. Commuters from outside the county could also arrange a pick-up from Netcong Station in order to access jobs in Sussex County. In all cases, demand-responsive trips to or from Netcong could be funded using the New Freedom grant funds.

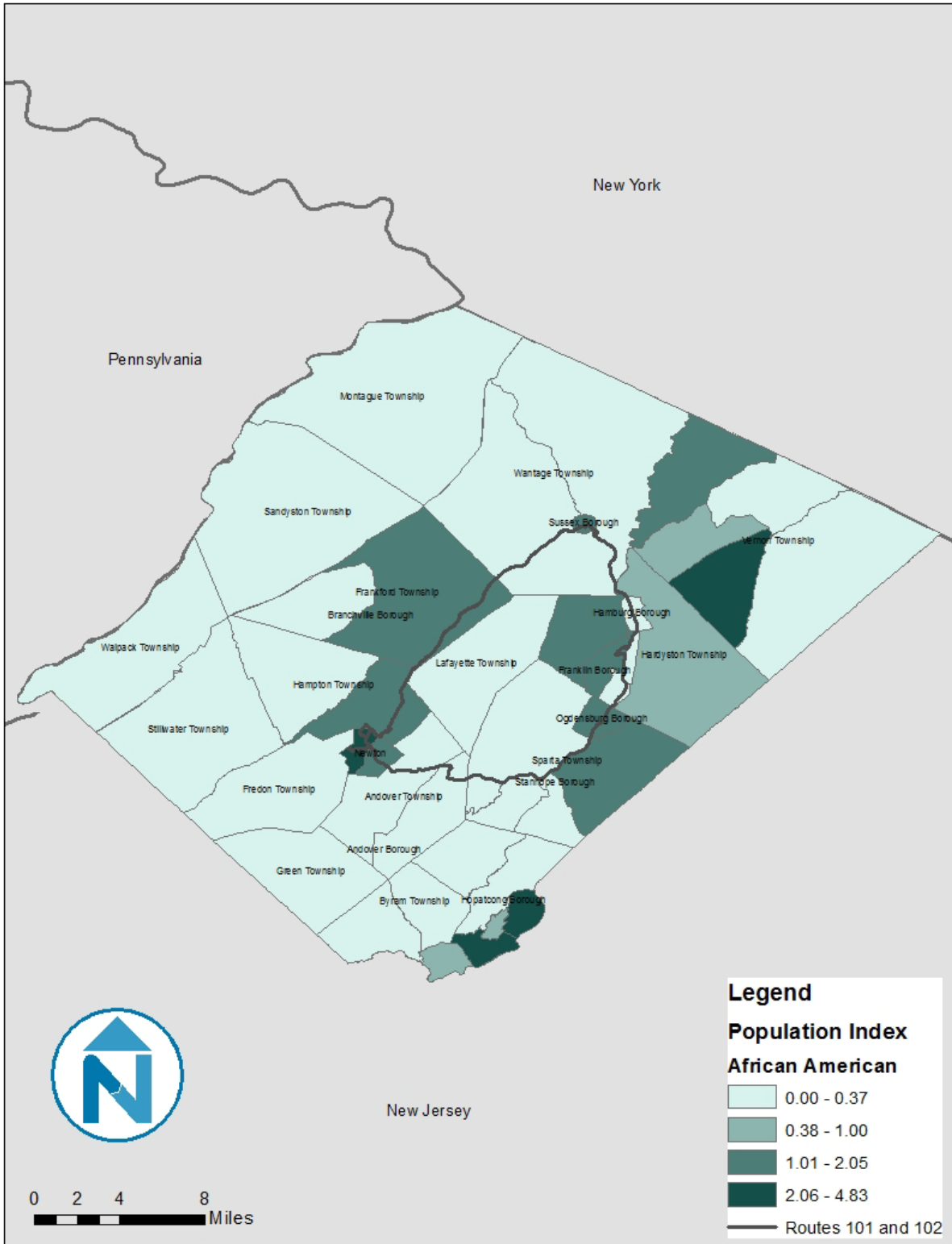
Over time, and if demand warrants, the demand-responsive service can be replaced with fixed-route service, but as it is difficult to predict where in Sussex County the highest demand for service to Netcong will come from, starting out with demand-responsive service is the most advisable approach.

## Appendix A: Transit Propensity Components

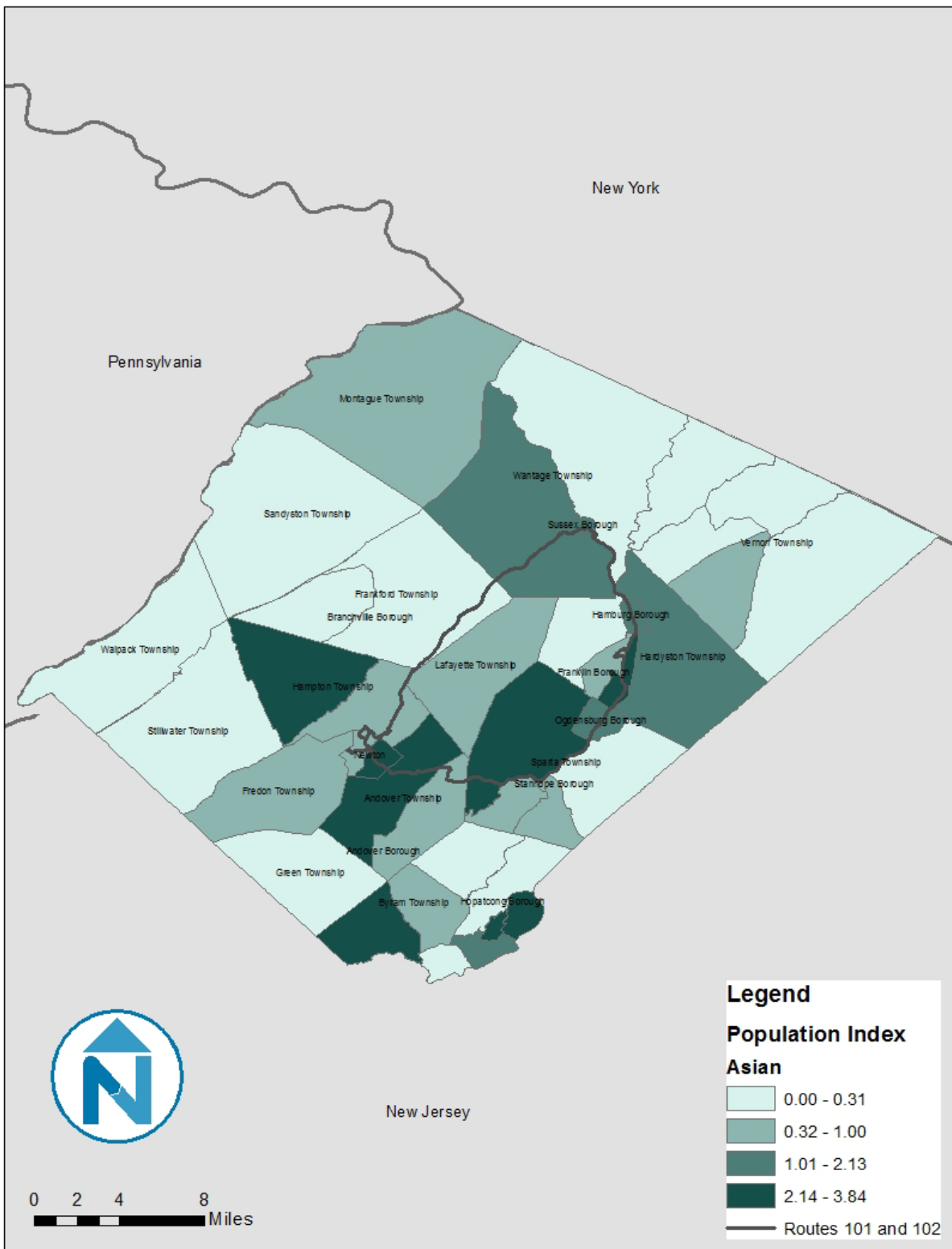
### Female Population Index



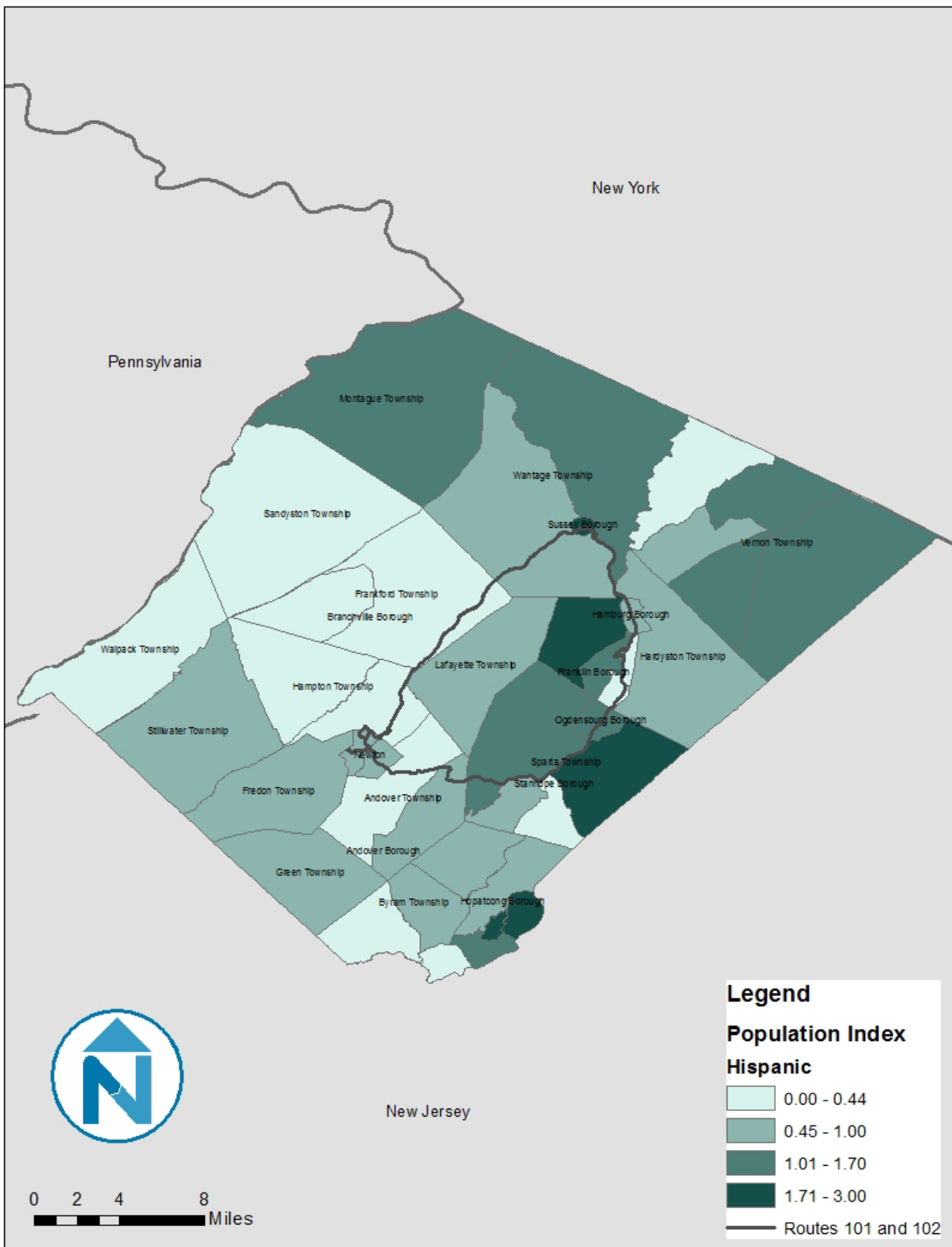
## African American Population Index



## Asian Population Index

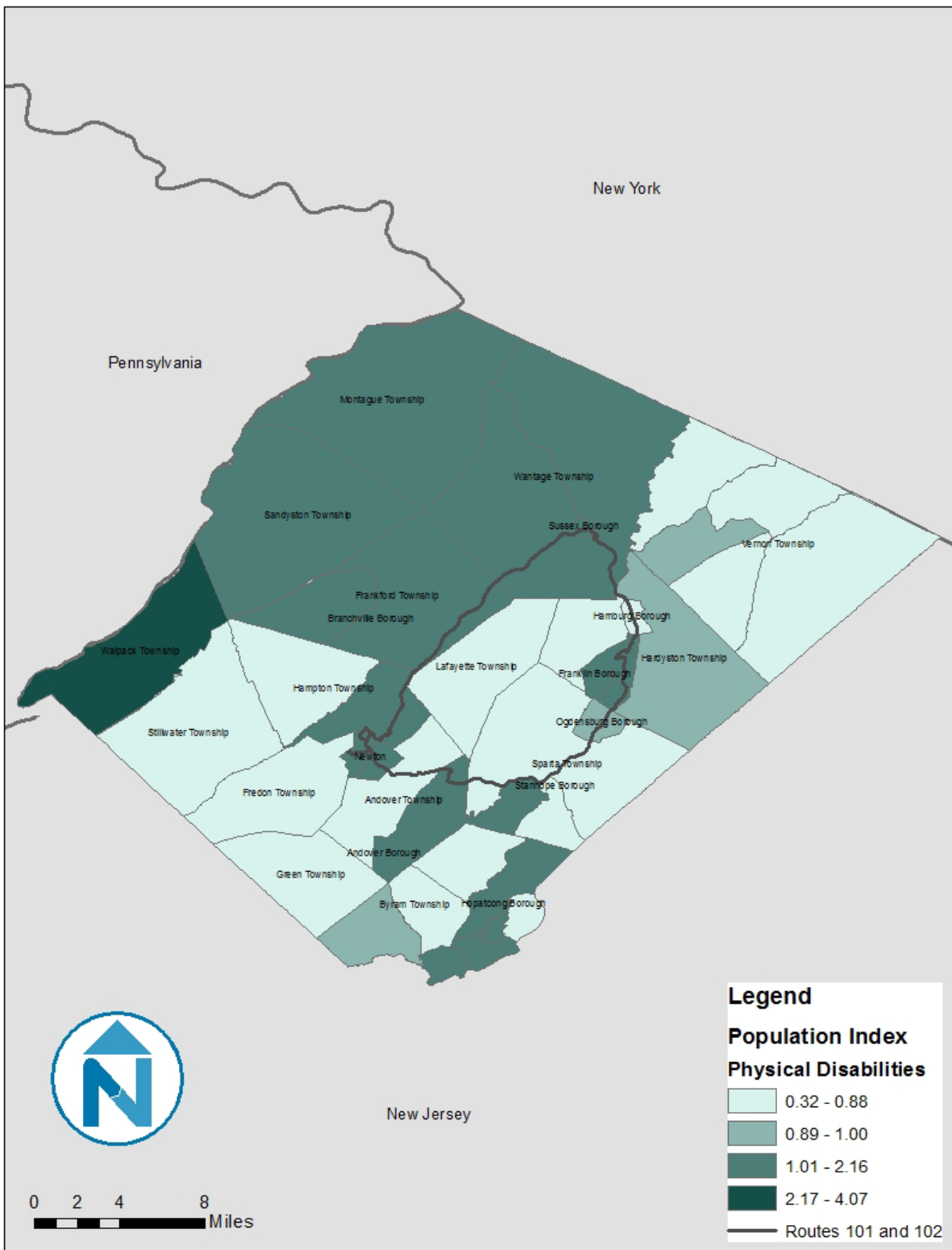


## Hispanic Population Index

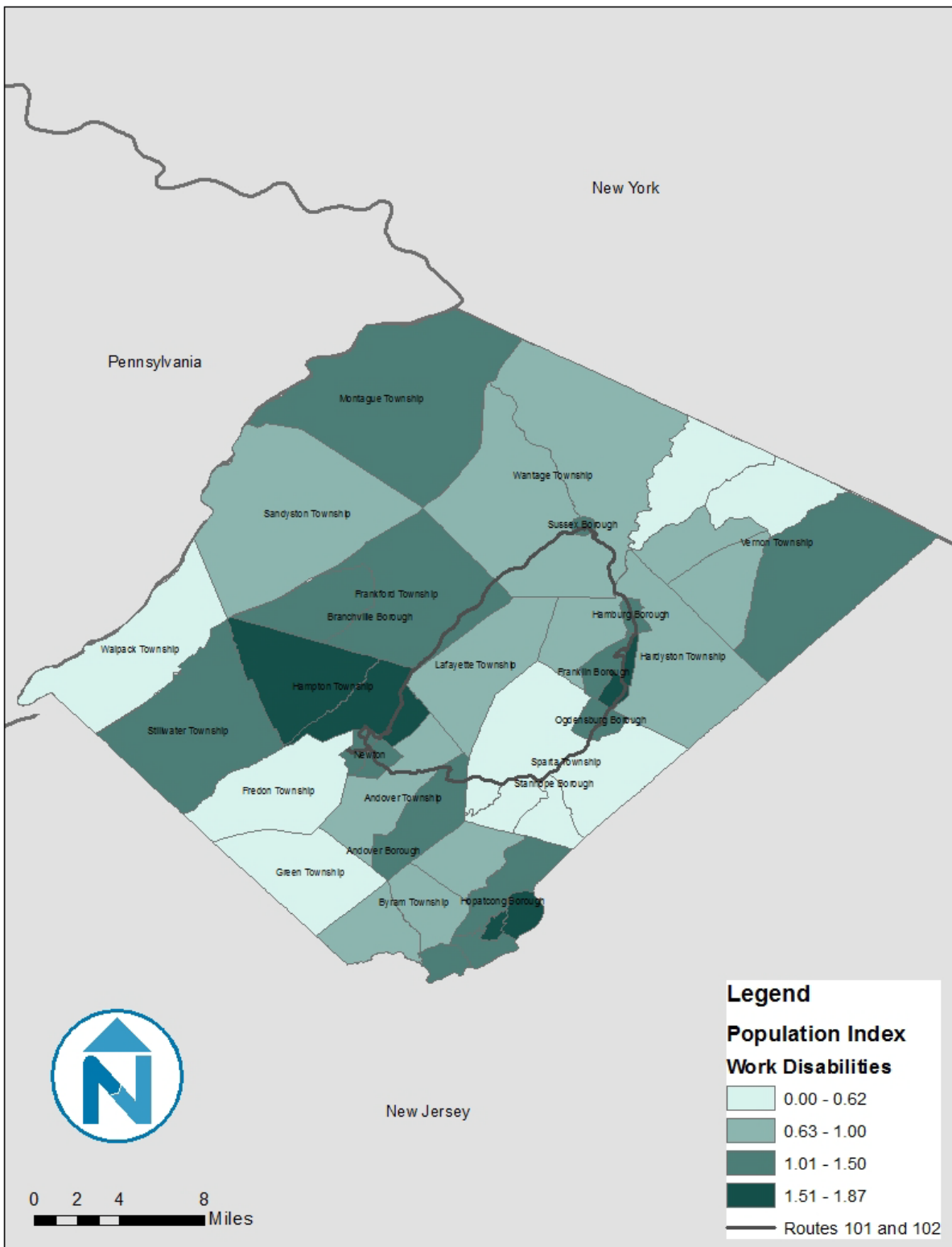




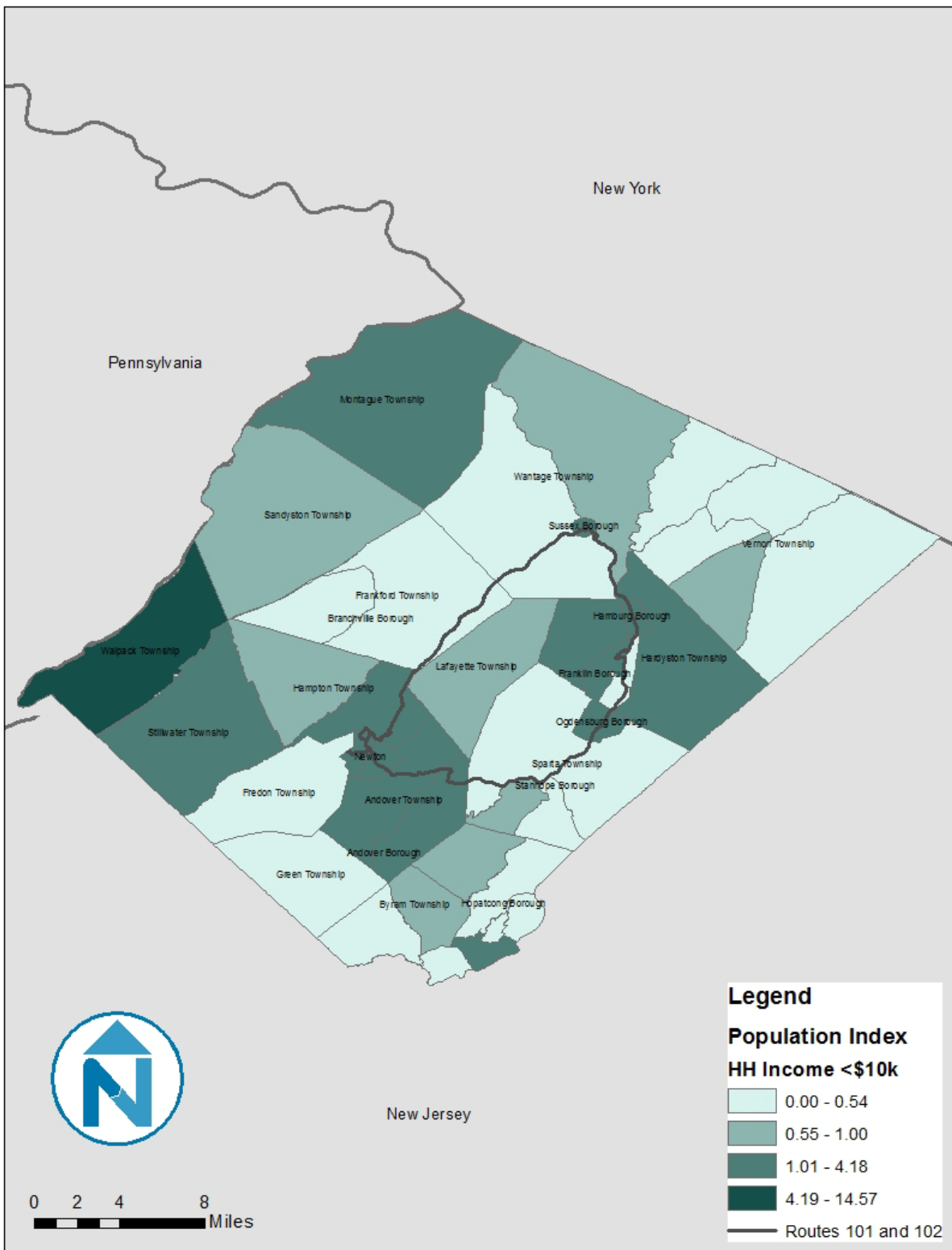
## Physical Disabilities Population Index



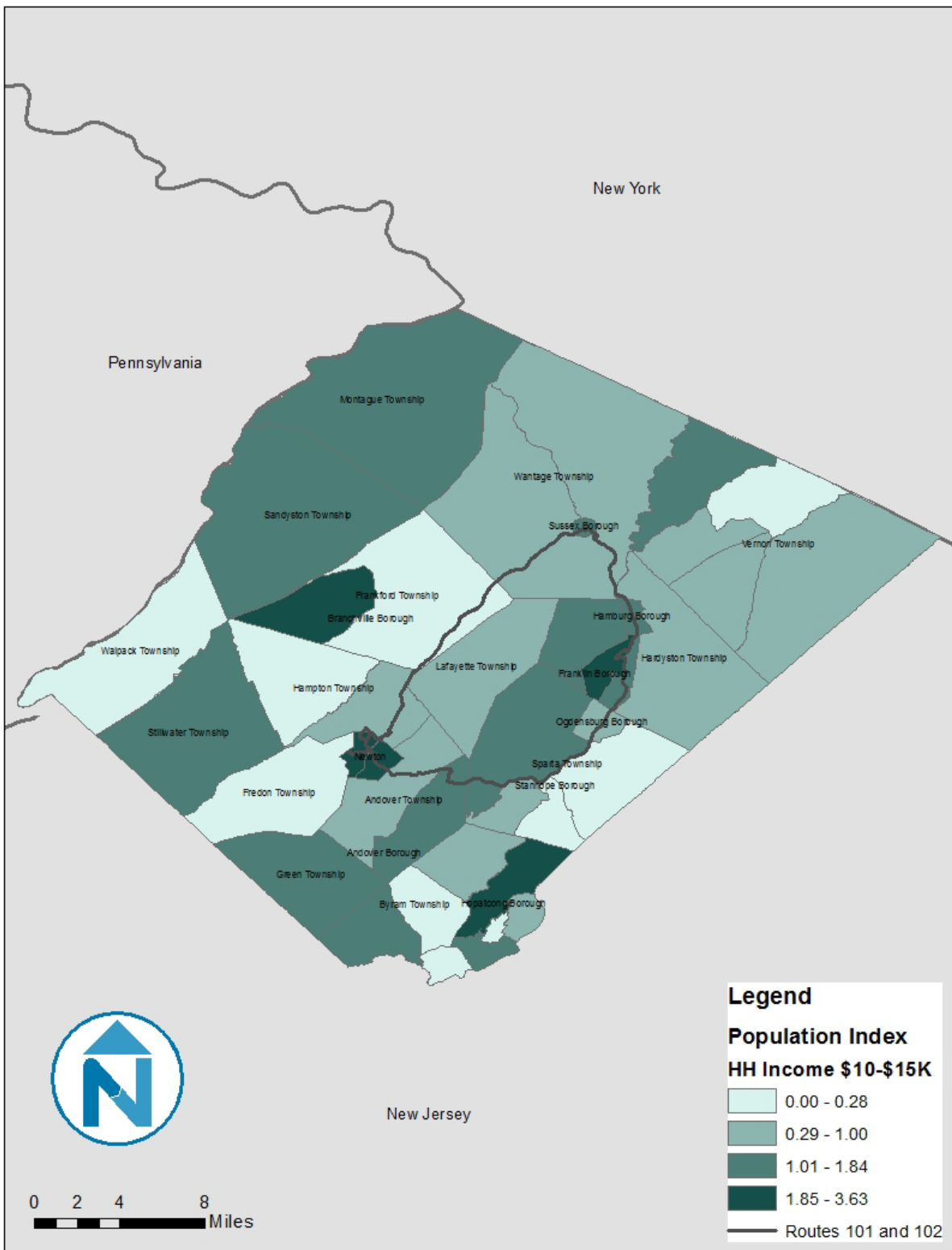
## Work Disabilities Population Index



Household Income under \$10,000 Population Index

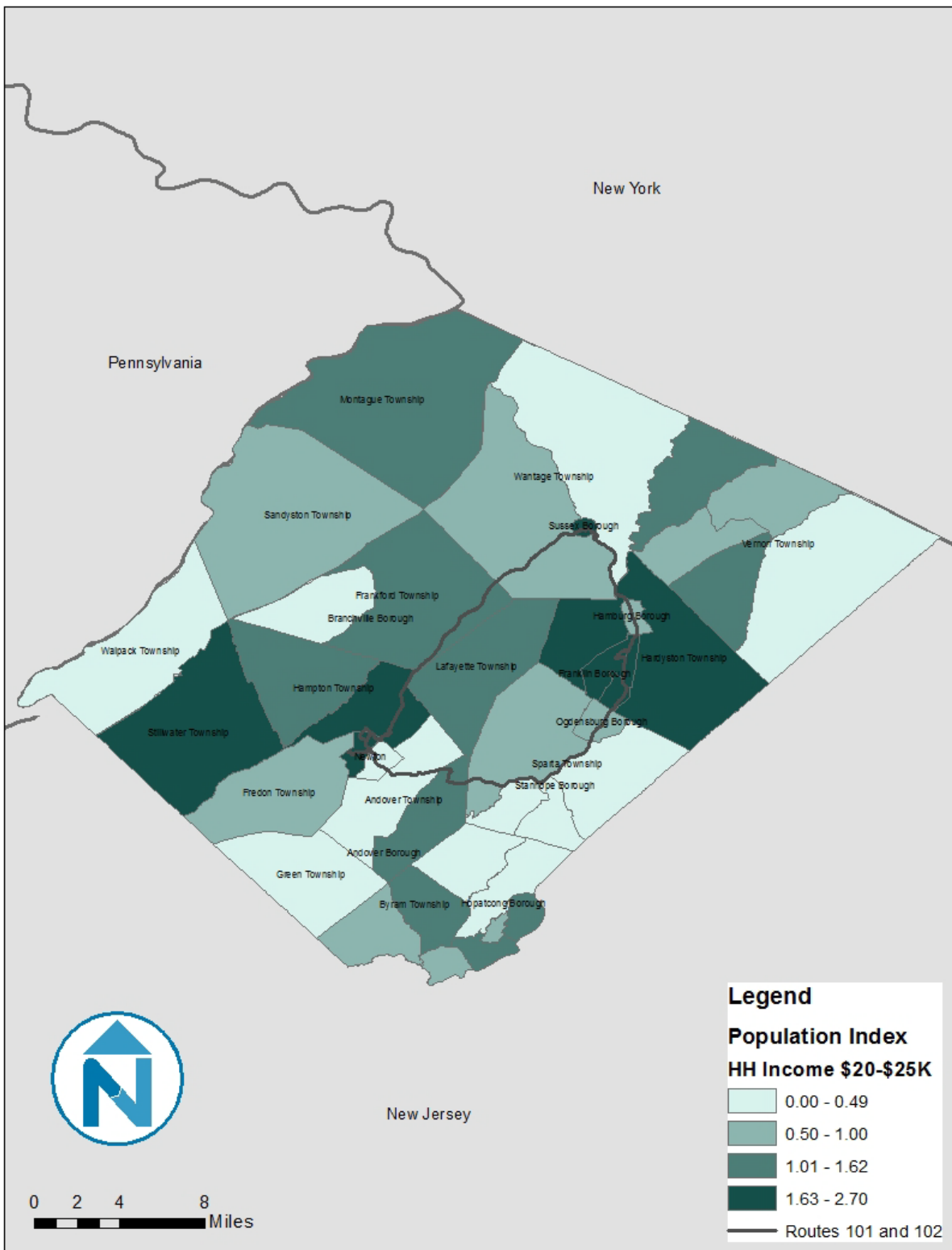


Household Income between \$10,000 and \$15,000 Population Index

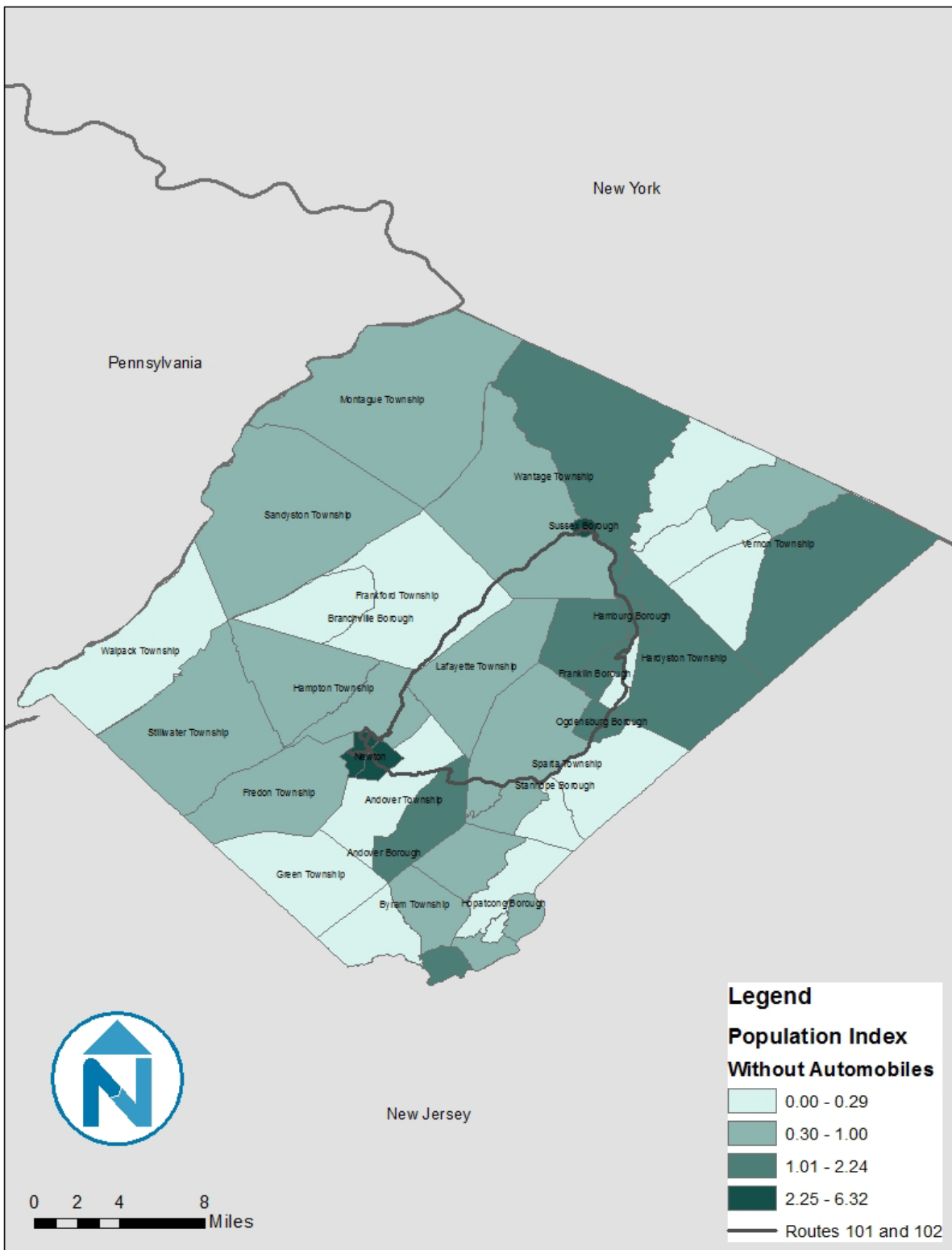




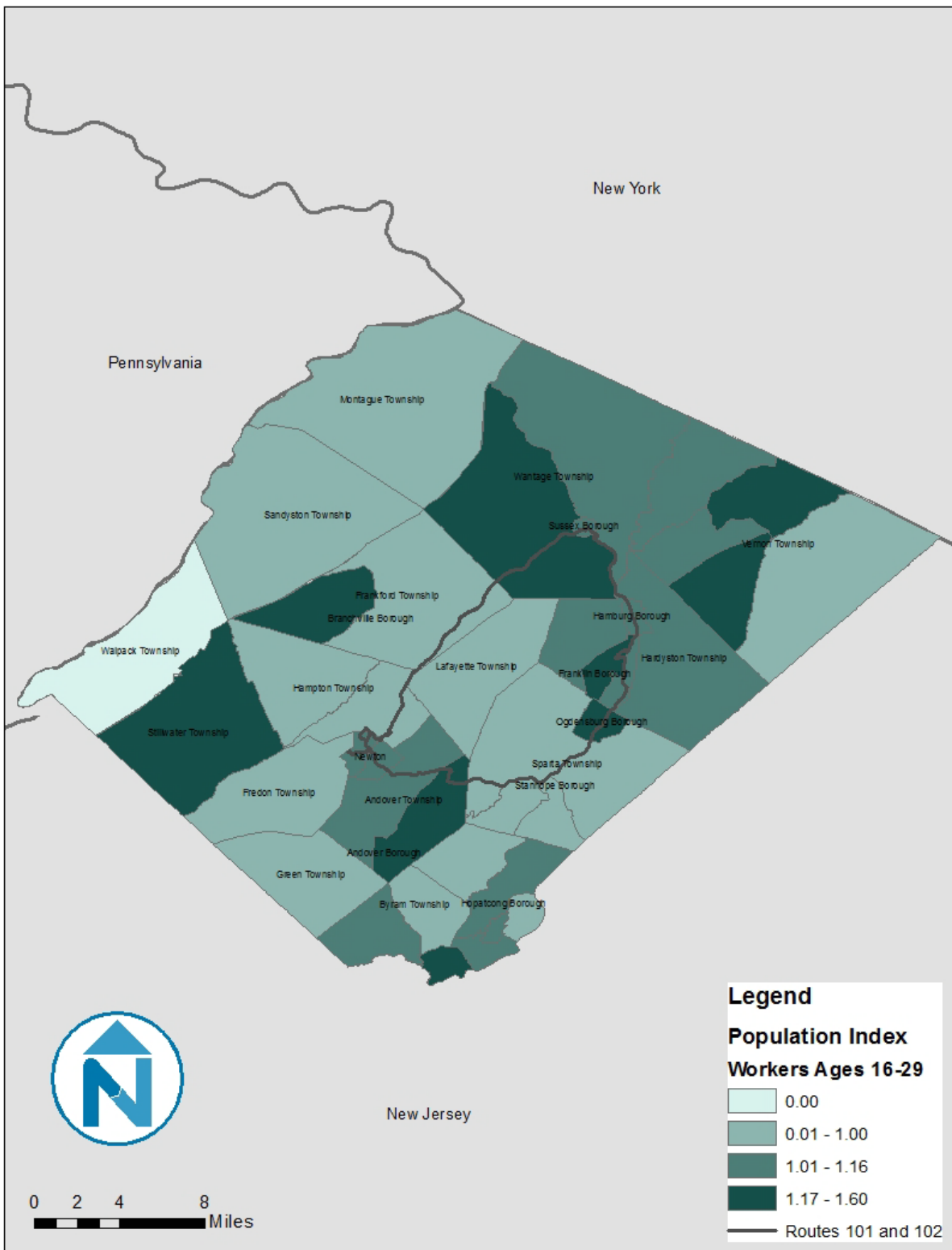
Household Income between \$20,000 and \$25,000 Population Index



## Households with no Automobiles Population Index

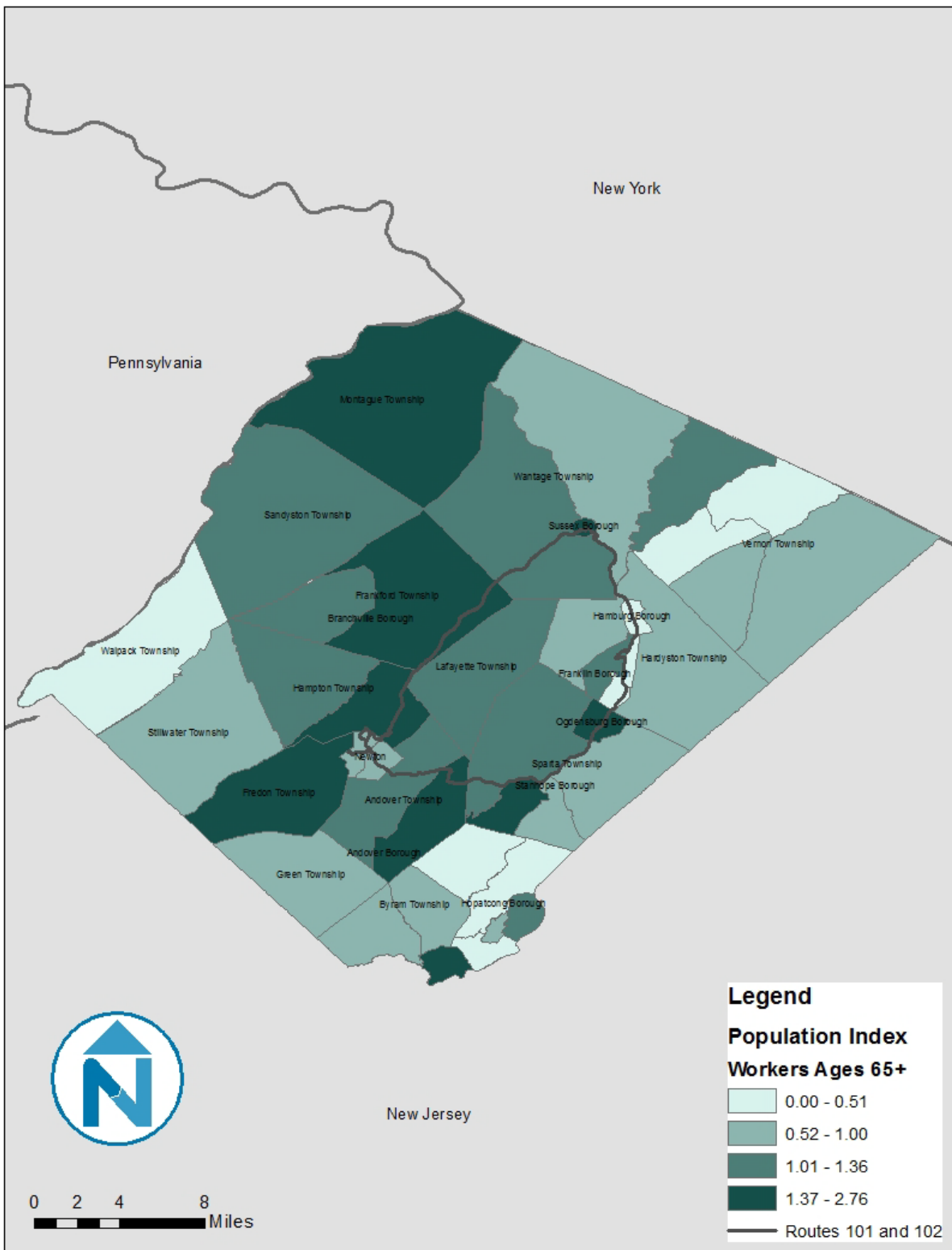


## Workers Age 16 to 29 Population Index





## Workers Over 64 Population Index



## Appendix B: Description of Federal and State Transit Funding Sources

### Federal Funds

The most commonly known and used federal funds for urban and rural transit come from the Federal Transit Administration (5300 numbered programs). Some program funds are dedicated toward capital, operating, or planning purposes, while other programs are more flexible. Funding streams are separated into grants for urbanized areas (Census population of 50,000 or more) and rural areas (Census population less than 50,000).

#### **Metropolitan & Statewide Planning (5303, 5304, 5305)**

Funds planning activities in urbanized areas with populations greater than 50,000. Sussex County is part of the North Jersey Transportation Planning Authority metropolitan planning region.

*Designated Recipient: NJTPA*

#### **Urbanized Area Formula Program (5307)**

Provides capital and operating assistance in urbanized areas on a formula basis.

*Designated Recipient: Sussex County*

#### **Bus and Bus Facilities (5309)**

This capital program provides monies for new and replacement buses and facilities.

*Designated Recipient: NJDOT, Sussex County*

#### **Transportation for Elderly Persons and Persons with Disabilities (5310)**

This fund can be used for capital expenses that support the transportation needs of older adults and people with disabilities. This grant is most often used to purchase or lease vehicles.

*Designated Recipient: NJDOT*

#### **Formula Grants for Other than Urbanized Areas (5311)**

This program, the counterpart to 5307, provides formula funds to support transit in areas with a population of less than 50,000. A subset of this grant is called the Rural Transit Assistance Program.

*Designated Recipient: Sussex County*

#### **Job Access Reverse Commute (5316)**

This grant provides funds for transportation to work for low-income persons. The program is also designed to provide funds to connect employees living in cities to higher-paying jobs in suburban areas.

*Designated Recipient: NJTPA*

#### **New Freedom (5317)**

Provides funds for transportation for people with disabilities that go beyond the requirements of the Americans with Disabilities Act (ADA).

*Designated Recipient: NJTPA*

### **Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER)**

TIGGER grants provide funds to public transportation agencies for capital investments that reduce greenhouse gas emissions and energy use. TIGGER was authorized in the American Recovery and Reinvestment Act (AARA) of 2009. Congress appropriated \$100 million for the program. Grant applications must be for at least \$2 million, and up to \$25 million. For example, the city of Dubuque, IA received \$1.5 million for hybrid bus purchase. Individual projects costing less than \$2 million can be combined into a consolidated proposal. No local match is required.

*Designated Recipient: NJDOT, Sussex County*

### **Transportation Investment Generating Economic Recovery Program (TIGER)**

Another grant created by the AARA, TIGER funds innovative, multimodal, and multi-jurisdictional transportation projects that will provide regional economic and environmental benefits. TIGER 1 allocated \$1.5 billion to the US DOT. A second iteration of the program, TIGER 2, has \$600 million to award. TIGER grants can be awarded for either capital or planning purposes. Capital grants under TIGER 2 ranged from \$1.5 million for a complete streets project to \$47 million for the Atlanta Streetcar. Planning grant awards ranged from \$85,000 to \$2.8 million. Congress has appropriated \$526 million for FY 2011 grants.

### **Congestion Mitigation and Air Quality Program (CMAQ)**

Initially created as part of TEA-21, CMAQ was reauthorized in SAFETEA-LU with just under \$9 billion for state DOTs and MPOs to support transportation and environment projects. Funds under CMAQ are key in improving air quality in non-attainment areas. NJTPA is responsible for tracking air quality conformity, which in the 12-county region does not meet attainment levels.<sup>6</sup> As a sample project, NJTRANSIT received \$75,000 in FY 2010 from CMAQ for the Access to the Region's Core project. CMAQ can also be used for pedestrian and bicycle projects. Under TEA-21, New Jersey received \$80 million per year in CMAQ funds.

### **Transit/Vanpool Benefit**

The federal Commuter Choice program allows an employer to pay for an employee's cost of commuting to work via transit or vanpool. This benefit, which can total up to \$65 per month, can also be used as a parking cash out.

## **State Funds**

### **Senior Citizen/Disabled Resident Transportation Assistance Program**

This fund transports older adults and those with disabilities. Monies are made available from casino tax revenues and can be used for paratransit service and fare subsidies.

### **Title III-B**

Authorized under the Older Americans Act, this program provides funds service connecting older adults and essential services.

### **Senior Community Service Employment Program (SCEP)**

This is a community service and work-based training program for older adults authorized by the Older Americans Act. The federal funds (\$571.9 million currently) are distributed to the New Jersey Department of Labor and Workforce Development. This program may be used for older adult transportation to work.

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<sup>6</sup> [http://www.fhwa.dot.gov/environment/air\\_quality/cmaq/populations/nonattainment\\_2010/nj.cfm](http://www.fhwa.dot.gov/environment/air_quality/cmaq/populations/nonattainment_2010/nj.cfm)

### **Workforce Investment Act**

This federal act provides formula funds to states for use on youth and adult employment and training services. Funds may be used to help provide transportation to training programs. Funds are distributed to the New Jersey Department of Labor and Workforce Development. New Jersey's share is \$9.4 million, and was funded through the American Recovery and Reinvestment Act (ARRA).

### **Temporary Assistance for Needy Families (TANF)**

WorkFirst NJ is the organization who distributes federal TANF money, which aims to get families off welfare, secure people with employment, and give them the tools to become self-sufficient. In New Jersey's case, the block grant is distributed to the Department of Human Services. A subset of WFNJ provides assistance to single individuals without dependents as well. These block grants to states totaled \$16.5 billion annually in FY 2005. State and local TANF agencies can use funds for a range of transportation services as long as the expenditure reasonably accomplishes a purpose of the TANF program, such as travel to work or to pick up dependents to/from work. TANF can be used to operate new and expanded transportation services that benefit eligible families. The funds can also be used to contract services for TANF-eligible individuals. Many TANF agencies use funds to purchase bus passes or reserve trips. Clients are eligible to receive funds for five years. Those who exhaust that time period may continue to receive funds through the Supportive Assistance to Individuals and Families program.

### **Advertising**

This is a common source of revenue for transit providers. Advertising can be placed on vehicles, inside vehicles, on bus passes, etc. Income from advertising for transit agencies typically ranges from 0.1 to 3 percent of operating monies.

## Appendix C: Vehicle Utilization Plan

