



DRAFT FINAL REPORT



**Ulster County Fixed Route Public
Transportation Coordination and Intermodal
Opportunities Analysis**

Prepared for

Ulster County Transportation Council

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INTRODUCTION

The Ulster County Fixed Route and Public Transportation Coordination and Intermodal Opportunities Analysis is being conducted by the Ulster County Transportation Council. It is designed to address issues which reflect the current nature of service and the opportunities for the future. This includes the development of proposals to improve public transportation to residents that are currently provided by several carriers that operate within and beyond Ulster County. Ideally, both existing and future riders would face a “seamless” and “user friendly” public transportation system in terms of schedules, fares and information on how to use the system. Another area of concern being examined is the suitability of current transit facilities and the amenities that they afford customers. Other opportunities for improvement include proposals related to fare coordination, marketing and land use.

To address these issues, a multi-step work program has been developed for the Ulster County study area (Figure 1). At the outset, it should be recognized that the current study is strategic in nature and deals with many issues in a broad systemic manner. It provides a menu of improvements that will need to be refined and analyzed in greater detail as they proceed to implementation. The current study is the initial step in this process.

The first study activities were directed to defining the public transportation system in terms of its supply and demand characteristics. This has been followed by proposals to improve public transportation in a number of areas. To encourage review at key milestones of the project, two interim reports were prepared to present results as they became available and solicit comments. These reports comprise most of the information presented in this Final Report. During the conduct of the study, presentations were made to the Transit Advisory Committee and the general public to obtain their input.

The first chapter is a service inventory and presents a description of service in terms of coverage, communities served and the level of service offered. The latter includes the frequency of service in terms of number of trips and the span of service, or when service is operated. The complexity of service is evident from the number of carriers and the communities served.

To indicate recent trends, operating statistics, ridership and financial information was presented for the operators within Ulster County. More detailed information is available for the two public operators and includes a few performance measures to better delineate trends. In large part, they reinforce the unique nature of the service and the challenging transit environment. This reflects a relatively large geographical area, dispersed development, relatively low density and high automobile ownership rates.

The 2000 U.S. Census provides a wealth of information on Ulster County residents by individual tract. Data were obtained on population and employment, which influence travel. Further, the characteristics of the residents are examined in terms of various indices such as age,

income and automobile ownership, to cite a few. Typically, these are factors that influence the need and propensity to use transit. Statistics are presented in terms of the aggregate, percentage and density values for each tract. These results were combined in a scoring system to portray relative transit need.

The 2000 U.S. Census also gathered information on commuters' travel habits in terms of residence location, job site and mode of travel. The data are helpful in understanding commuter travel patterns and the number of persons that both live and work in Ulster County. Of particular interest are intercounty trips in which more people live in Ulster County and work elsewhere as well as residents of other counties who work in Ulster County. This information can indicate potential travel markets both within and outside Ulster County.

The next portion of this Final Report is the discussion of stakeholder panels that were held with persons interested in public transportation matters. A list of topics were delineated and formed an outline for the discussions which followed. The comments were informative and provided a qualitative view of public transportation services and facilities, which complemented the quantitative results presented previously.

The concluding chapter presents key findings and recommendations in a number of areas and comprises useful strategies during the next few years. The first topic presents proposals related to service and examines service types, network coverage and level of service. An important issue is the complexity of the system and the need for a "user friendly" transit system that can retain current riders and attract new customers. The second area presented relates to the major facilities that support the operating plan. This includes commuter parking lots that serve both bus operations (i.e., park-ride) and carpool staging.

The other topics are concerned with issues of fares and marketing public transportation. Currently, each operator establishes their own fare policy with no coordination or reciprocal agreements. Another aspect of the public transportation system that can be enhanced is how the service is marketed and promoted. Also presented are proposals to encourage development and design of new areas that are "transit friendly" and increase the likelihood of transit use and the system's efficiency. Finally, there is a recognition that the choices are not solely between single occupant vehicle and transit and that ridesharing options need to be stressed.

The study has presented an ambitious menu of proposals that can guide public transportation decisions during the next few years. It is anticipated that this Final Report will provide a vision of an improved transit system. The plan is a framework that will evolve over time to respond to changing conditions.

EXISTING SERVICES

This section of the report reviews the various public transportation operators which currently provide service throughout Ulster County. The public transit services are described in terms of when, where and how often they operate, and several operating and financial data for each of the transit service providers are also presented.

Overview of Carriers

Several carriers operate public transportation services throughout Ulster County. Public transportation service in Ulster County can be categorized as either being a “transit” service or being a “commuter/intercity” service, although sometimes it is difficult to make exact distinctions. The transit operators tend to provide service within Ulster County or to immediately adjacent areas, whereas the commuter/intercity operators tend to provide service either connecting Ulster County with a relatively distant location (e.g., Kerhonkson with New York City) or passing through Ulster County while connecting two other places (e.g., New York City with Albany).

As can be seen in Table 1, there are four operators providing transit services in Ulster County. These are Kingston CitiBus, Ulster County Area Transit (UCAT), Mulligan Bus Lines (which was formerly known as Arrow Bus Lines) and Laidlaw Transit. Table 2 indicates the three operators of commuter/intercity service in Ulster County: Adirondack/Pine Hill Trailways, Coach USA - Short Line and Sharmash Bus - Monroe Bus Corporation. The services provided by these operators will be described in greater detail in a subsequent section of this report.

Several public transportation operators also provide service in the vicinity of Ulster County, but do not actually serve the county itself. However, these operators are of interest because they provide services which people who need to travel to and from Ulster County may utilize. These neighboring public transportation providers are as follows:

- **MTA Metro-North Railroad** - The MTA Metro-North Railroad’s Hudson Line serves Poughkeepsie, located in Dutchess County. It provides relatively frequent service connecting Poughkeepsie - the northern terminal of the Hudson Line - with Grand Central Terminal in New York City on Manhattan’s east side. People traveling to and from Ulster County can utilize the Mulligan Bus Lines service connecting Poughkeepsie with New Paltz in Ulster County.
- **Amtrak** - Amtrak serves the Rhinecliff-Kingston station - which is located in

Rhinecliff in Dutchess County - in addition to the Poughkeepsie station. As was previously mentioned, people traveling to and from Ulster County can utilize the Mulligan Bus Lines service connecting Poughkeepsie with New Paltz in Ulster County. However, there is no connecting public transportation service at the Rhinecliff-Kingston station. Amtrak provides service connecting these stations with Pennsylvania Station in New York City on Manhattan's west side. Amtrak's Empire Service connects New York City with Albany, Buffalo and various upstate New York locations, while other Amtrak intercity trains (e.g., those providing service to Chicago, Montreal, etc.) also serve the Poughkeepsie and Rhinecliff-Kingston stations.

- **Other Bus Services** - In neighboring Dutchess County, there are additional providers of public transportation services which people who need to travel to and from Ulster County may utilize. In Poughkeepsie, people who have traveled from Ulster County on the Mulligan Bus Lines service can connect to the following transit services:
 - < **City of Poughkeepsie Transit** - This service operates within the City of Poughkeepsie and its immediate environs.
 - < **Dutchess County LOOP** - This service operates throughout Dutchess County, with Poughkeepsie as its primary focal point.
 - < **The Leprechaun Connection** - This service connects Poughkeepsie with White Plains, in Westchester County. It is operated by Leprechaun Lines.

Finally, in Orange County, which borders Ulster County to the south, there are also additional providers of public transportation services which people who need to travel to and from Ulster County may utilize. In Newburgh, people who have traveled from Ulster County on the Ulster County Area Transit service can connect to the following transit services:

- < **Newburgh-Beacon-Stewart Link** - This service, operated by Leprechaun Lines, connects Stewart International Airport and Newburgh with Beacon, located in Dutchess County. In Beacon, transfers can be made to the MTA Metro-North Railroad's Hudson Line as well as to the Dutchess County LOOP bus system.
- < **Newburgh Area Bus Service** - This service operates within Newburgh and its immediate environs. It is also operated by Leprechaun Lines.

Public Transportation Services in Ulster County

In this section of the report, the public transportation services operated throughout Ulster County are described in detail. Route descriptions, the frequency of service (i.e., how often services operate) and the span of service (i.e., when services operate) are all reviewed.

Description of Service - Table 1 provides a description of the services operated by the four transit operators in Ulster County, while Table 2 provides a similar description for the three operators of commuter/intercity services in Ulster County. The services provided by each of these operators are as follows:

- **Kingston CitiBus** - Kingston CitiBus operates three bus routes throughout the year in the City of Kingston, as seen in Table 1. One of these bus routes also serves Port Ewen. Route A connects Hannaford's in the Kingston Plaza shopping center with both the uptown and the Rondout areas of Kingston via Broadway. Route B connects Hannaford's in the Kingston Plaza shopping center with both Hurley Avenue and the Business Resource Center via the uptown and the midtown areas of Kingston. Finally, Route C connects Hannaford's in the Kingston Plaza shopping center with Port Ewen via both the Rondout and Golden Hill areas of Kingston. While the three routes converge on Hannaford's, they do not operate on a "timed-transfer" basis.

Kingston CitiBus also operates a fourth bus route from June through October. This seasonal bus route - the Kingston Historic Trolley - connects the Trolley Museum in the Rondout section of Kingston with the Ramada Inn, located west of the New York State Thruway (Interstate 87). The fare on Kingston CitiBus is \$0.75, with tokens sold in packs of three for \$2.00. Transfers cost an additional \$0.30.

- **Ulster County Area Transit** - As seen in Table 1, Ulster County Area Transit (UCAT) operates two different types of bus routes: the Regular Routes and the Rural Routes.

UCAT's Regular Route network consists of nine bus routes which provide public transportation service throughout Ulster County. Only one of the UCAT Regular Routes - the Newburgh Service - leaves Ulster County to serve Newburgh, located in neighboring Orange County. Buses operate between the more densely developed communities of Ulster County along many relatively major roadways. Much of the service area is rural in nature. The UCAT bus network is essentially focused on the Kingston Plaza shopping center in Kingston; however, both the Ulster County Community College (UCCC) and the Hudson Valley Mall are very important locations on the UCAT Regular Route network. UCAT's Regular Routes are "Flexible Fixed Routes", meaning that the bus will go off-route to serve locations within approximately three quarters of a mile of the bus route on a pre-arranged reservation basis. Reservations should be made no less than 24

hours in advance. This arrangement allows UCAT to satisfy the requirements of the Americans with Disabilities Act and not have to operate a complementary demand responsive paratransit system.

UCAT's Rural Route service is a demand responsive service which essentially supplements the Regular Routes in communities where experience has shown that additional service is needed on certain days. Similar to the UCAT Regular Routes' "off-route" flex service, reservations for the UCAT Rural Route service must be made no less than 24 hours in advance. The communities listed in Table 1 all receive UCAT Rural Route service connecting them to either Kingston or New Paltz; however, service operates on a "rover" basis, with only certain communities receiving service on certain weekdays.

Because of the size of its service area, UCAT employs a distance-based zone fare system. The fare for UCAT service is \$0.75 to board the bus (which entitles the passenger to ride within one zone) and \$0.25 for each additional zone. An additional \$0.50 is charged for each single off-route service (i.e., for each pick-up or drop-off not along the basic route).

- **Mulligan Bus Lines** - As shown in Table 1, Mulligan Bus Lines only operates one bus route. This bus route connects New Paltz with Poughkeepsie, in neighboring Dutchess County.
- **Laidlaw Transit** - Similar to Mulligan Bus Lines, Laidlaw Transit also only operates a limited service, as shown in Table 1. This bus route connects Kingston with Saugerties via the New York State Route 32 corridor and Old King's Highway.
- **Adirondack/Pine Hill Trailways** - As shown in Table 2, Adirondack/Pine Hill Trailways operates several bus routes through Ulster County connecting upstate New York locations with New York City as well as Long Island. Adirondack/Pine Hill Trailways provides the only "one-seat ride" service (i.e., no transfer required) between Kingston and the Port Authority Bus Terminal in New York City on Manhattan's west side. Adirondack/Pine Hill Trailways also provides service north to Albany.
- **Coach USA - Short Line** - As shown in Table 2, Coach USA - Short Line provides two basic services. The first is the service along the U.S. Route 209 corridor, which connects Ellenville and Kerhonkson with New York City. The second also utilizes the U.S. Route 209 corridor as well as the New York State Route 52 corridor in Ulster County and connects Kingston and Ellenville with Monticello, located in neighboring Sullivan County.
- **Sharmash Bus - Monroe Bus Corporation** - As shown in Table 2, the "Catskill

Express” bus route operated by Sharmash Bus connects Ellenville, Ulster Heights and Naponoch in Ulster County with various locations in New York City.

Frequency and Span of Service - Table 3 shows the frequencies of service for the four transit operators in Ulster County, while Table 4 shows the same information for the commuter/intercity service providers in Ulster County. Because of the differing natures of the types of services provided, Table 3 presents the frequencies of service - where appropriate - in

terms of minutes between buses (i.e., headway) for each service period, whereas Table 4 presents the approximate number of round trips for each service day.

Tables 5 and 6 present the spans of service for the transit and commuter/intercity operators in Ulster County, respectively. The time service begins on a bus route and the time service ends is presented in both tables. In some cases, there are two distinct spans of service within a single service day. This occurs when there is no service available on a bus route for an extended period of time during the service day, such as for bus routes which are oriented towards specific trip purposes (e.g., work trips).

The frequencies and spans of service for each of the operators in Ulster County are as follows:

- **Kingston CitiBus** - Kingston CitiBus operates service on its three basic bus routes (i.e., Routes A, B and C) for 12 hours on weekdays (i.e., 6:30AM to 6:30PM) and for eight hours on Saturdays (i.e., 9:30AM to 5:30PM). Service operates every hour and there is no service on Sundays. The Kingston Historic Trolley operates only between June and October; however, service operates seven days a week from noon until 5:00PM.
- **Ulster County Area Transit** - Ulster County Area Transit (UCAT) operates nine Regular Routes; however, eight of these bus routes operate on weekdays and only one of these bus routes (i.e., the Kingston-Saugerties service) also operates on Saturdays. The ninth UCAT Regular Route is the Woodstock-New Paltz service, which operates only on Saturdays.

On weekdays, UCAT Regular Route headways can vary widely, depending on both the bus route as well as on the direction of travel. The most frequent bus routes are the Kingston-New Paltz service (which also serves the Ulster County Community College) and the Kingston-Saugerties service (which also serves the Hudson Valley Mall). UCAT Regular Route service starts at approximately 6:00AM, but ending times vary. One route ceases operating by 3:30PM (i.e., the New Paltz Shuttle), while another operates until 10:30PM (i.e., the Kingston-Saugerties service). On Saturdays, the two UCAT Regular Routes both start at 8:00AM and are finished with service by 6:00PM. There is no UCAT Regular Route service on Sundays.

The UCAT Rural Routes, as previously mentioned, are a supplemental demand responsive service that operate “rover” service connecting either Kingston or New Paltz with specific communities on certain days. Service begins at approximately 9:00AM and is completed by 3:00PM.

- **Mulligan Bus Lines** - Mulligan Bus Lines operates service approximately every hour to hour and a half throughout the day on weekdays and on Saturdays; there is no Mulligan Bus Lines service on Sundays.
- **Laidlaw Transit** - Laidlaw Transit operates just one trip between Kingston and Saugerties during the morning and afternoon weekday peak periods; no service is operated at any other time on weekdays or on weekends.
- **Adirondack/Pine Hill Trailways** - As can be seen in Tables 4 and 6, Adirondack/Pine Hill Trailways operates a relatively lengthy span of service throughout the week on all of its routes, with the exception of the Kingston-Albany service. This route only operates one round trip on weekdays oriented to Albany-bound commuters. Service on both the New York City-Utica and New York City-Albany services - which operate via Kingston and New Paltz - is relatively frequent.

The two routes which provide service to Long Island are very “tailored” bus routes which are designed to meet the needs of the academic communities attending school at upstate campuses and who wish to travel relatively frequently to downstate locations, especially on weekends. Service can vary on these bus routes depending on the academic calendar, and certain services may only operate on specific dates.

- **Coach USA - Short Line** - The two bus routes provided by Coach USA - Short Line operate relatively consistently throughout the entire week and have a lengthy and similarly consistent span of service on all service days. In general, however, the amount of service provided by Coach USA - Short Line in Ulster County is less than that provided by Adirondack/Pine Hill Trailways.
- **Sharmash Bus - Monroe Bus Corporation** - The “Catskill Express” bus route operates three round trips on weekdays and four round trips on Sundays. However, only two round trips are operated on Fridays and no service is operated at all on Saturdays. With the exception of Fridays (i.e., when service ends by 3:00PM), service operates for about 11 hours on weekdays (i.e., from 9:00AM to 8:00PM) and for about 12 hours on Sundays (i.e., from 8:00AM to 8:00PM).

The unique schedule of this bus service (i.e., service ending earlier on Fridays and no service at all on Saturdays) is reflective of the needs and religious beliefs of the clientele who utilize this bus service.

Coordination Between Services

Unfortunately, there is little schedule coordination among the various public transportation providers in Ulster County at the present time. Similarly, there is no fare coordination as well. However, several carriers meet at certain key locations where passengers may transfer among the bus routes. These connecting locations are summarized in the accompanying table.

Service Area Matrix

Location	Public Transportation Service Provider						
	UCAT	CitiBus	Mulligan	Laidlaw	Trailways	Short Line	Sharmash
Kingston Plaza	T	T		T			
Kingston Terminal	T	T			T	T	
Port Ewen		T			T		
Saugerties	T			T	T		
Woodstock	T				T		
Pine Hill	T				T		
Ellenville	T					T	T
Spring Glen	T					T	
New Paltz Terminal	T		T		T		
Highland	T		T		T		

Transportation Facilities

Currently, there are various public transportation facilities located throughout Ulster County. Each of these are described in this section of the report.

Terminals - Presently, there are only two major public transportation terminals located in Ulster County. These facilities - which are primarily utilized by the commuter/intercity service providers - include a waiting room, public restrooms and a ticket office. These facilities also allow for off-street loading and unloading of buses. The terminals in Ulster County are as follows:

- **Kingston Bus Terminal** - This facility is located on Washington Avenue in Kingston. Served by Adirondack/Pine Hill Trailways, Coach USA - Short Line, Kingston CitiBus and Ulster County Area Transit (UCAT), this terminal is located a short distance from the interchange with the New York State Thruway (Interstate 87) but is still within walking distance of the uptown area of Kingston.
- **New Paltz Bus Terminal** - This second terminal is located at the intersection of Main and Prospect Streets in New Paltz. This facility is served by UCAT, Mulligan Bus Lines and Adirondack/Pine Hill Trailways.

Stations and Agents - Throughout Ulster County, there are locations where the public transportation providers have relatively major “stations” (i.e., boarding locations) and - in the case of the commuter/intercity service providers - where authorized agents sell tickets for bus service.

For the transit providers in Ulster County, the Hannaford’s supermarket at the Kingston Plaza shopping center is a major location which is served by several bus routes operated by Kingston CitiBus, UCAT and Laidlaw Transit. It is, in fact, the de facto “hub” of the Kingston CitiBus system. Other major “stations” are the Hudson Valley Mall (served solely by UCAT) and the Ulster County Community College (which is also served solely by UCAT).

The authorized agents for the commuter/intercity carriers, in addition to those at the two bus terminals previously mentioned, are as follows:

- **Adirondack/Pine Hill Trailways** - Agents are located in Woodstock (at H. Houst & Son), Rosendale (at Rosendale Hardware), Pine Hill (at Belleayre Plaza) and Phoenicia (at Morne Imports).
- **Coach USA - Short Line** - Agents are located in Ellenville (at Dollar World) and Kerhonkson (at the Sunoco Food Mart).

At the present time, there are no agents for Sharmash Bus - Monroe Bus Corporation in Ulster County.

Park-and-Ride Lots - There are several Park-and-Ride lots located throughout Ulster County. These lots can be utilized either to access public transportation services or to create carpools (i.e., “carpool staging”). The park-and-ride lot locations are as follows:

- **New York State Thruway Exit 20** - Served by UCAT and Adirondack/Pine Hill Trailways.

- **State Routes 32 and 199** - Served by Laidlaw Transit.
- **New York State Thruway Exit 19/Interstate 587** - This lot is located on the traffic circle and is served by UCAT and Adirondack/Pine Hill Trailways.
- **Port Ewen** - Along U.S. Route 9W near the Riverview Condos; served by Kingston CitiBus and Adirondack/Pine Hill Trailways.
- **Rosendale** - Along New York State Route 32 near the Rosendale Recreation Center; served by UCAT and Adirondack/Pine Hill Trailways.
- **New York State Thruway Exit 18** - Served by UCAT, Adirondack/Pine Hill Trailways and Mulligan Bus Lines.
- **Lloyd** - Along U.S. Route 9W at New York State Route 299; served by Adirondack/Pine Hill Trailways and Mulligan Bus Lines.

Ridership Information

Information on ridership is regularly gathered by both Kingston CitiBus (by driver shift) and Ulster County Area Transit (by individual bus trip). Typical information was compiled for a representative weekday and Saturday to indicate ridership levels for both carriers. As can be seen in Table 7, UCAT Regular Route ridership and Kingston CitiBus ridership are approximately the same on a weekly basis. However, UCAT Regular Route ridership exceeds that of Kingston CitiBus on weekdays, but on Saturdays Kingston CitiBus carries more passengers than UCAT.

Table 7 also shows that UCAT's most popular Regular Route is the Kingston-New Paltz service, followed by the Kingston-Saugerties service and then the Kingston-Ellenville service. The least utilized UCAT Regular Route on weekdays is the Kingston-Walkkill service. On Saturdays, only two routes are operated, and the Kingston-Saugerties service carries most of the UCAT Regular Route ridership on Saturdays.

Figure 2 illustrates UCAT's Regular Route boardings by service day. Clearly, weekday ridership outpaces Saturday ridership. It is also apparent that weekday ridership is more "peaked", with pronounced ridership highs in both the morning and afternoon peak periods. Figure 3 illustrates the ridership by route and by time of day for a weekday for the UCAT Regular Routes. Once again, the two "peaks" are apparent. The extent to which the previously mentioned top three UCAT Regular Routes - in terms of boardings - shape the daily ridership patterns is also apparent. Finally, Figure 4 illustrates the primacy of the Kingston-Saugerties service on Saturdays in terms of boardings by route and by time of day. This bus route also serves the Hudson Valley Mall, a popular shopping destination for many of UCAT's clientele.

Table 7 and Figure 5 both show that Kingston CitiBus ridership is essentially more evenly distributed on weekdays among the three bus routes. On Saturdays, however, Route A is clearly the most popular Kingston CitiBus route, with more than 61 percent of the boardings. Figures 6 and 7 illustrate how the ridership on each of the Kingston CitiBus routes varies depending upon the time of day, with Route A being the most popular bus route throughout the day on Saturdays, but only during the AM period on weekdays. During the weekday PM period, Route B is the most popular Kingston CitiBus route.

Operating and Financial Trends

Operating and financial trends for the last five years were gathered for the various public transportation operators in Ulster County. This included data from 1999 through 2003, because this was the last full year for which data was readily available. The most detailed data was compiled for the two major transit operators in Ulster County: Ulster County Area Transit (UCAT) and Kingston CitiBus.

Ulster County Area Transit - Table 8 summarizes the operating and financial trends for UCAT over the last five years. As can be seen in Table 8, UCAT is carrying more passengers and supplying more service in terms of both vehicle hours and vehicle miles. However, the productivity of the UCAT system is slightly declining in terms of both passengers per vehicle hour and per vehicle mile. In part, this reflects expansion of service in areas where transit use is less prevalent. UCAT's costs have accelerated more quickly than its revenues, which reflect both service increases and escalating costs. Accordingly, farebox recovery has subsequently declined from 23.76 percent in 1999 to 12.64 percent in 2003. The system's unit costs have increased per vehicle hour, per vehicle hour and per passenger. The corresponding revenue statistics have not kept pace with the increases in costs.

Kingston CitiBus - Table 9 summarizes the operating and financial trends for Kingston CitiBus over the last five years. Kingston CitiBus is carrying slightly fewer passengers, but the amount of service supplied in terms of vehicle hours and vehicle miles has essentially remained the same. To an extent, this reflects certain anomalies in the reporting of some data items and statistics. The productivity of Kingston CitiBus has declined, but only slightly. While costs are increasing, revenue is actually declining, and the farebox recovery has also subsequently declined from 19.94 percent in 1999 to 15.74 percent in 2003. The financial results are reflective of the generally declining trend in terms of Kingston CitiBus data, with costs increasing by every measure (i.e., per vehicle hour, per vehicle hour and per passenger) and revenue declining by every measure except by passenger, where it has remained essentially the same.

Other Operators - Some operating data over the last five years was gathered for some of the other public transportation operators in Ulster County. The results in Table 10 are based on reports compiled by New York State Department of Transportation (NYSDOT) for operating assistance. The values include all subsidized operations and include service beyond Ulster

County. The number of passengers per mile has been generally declining since 1999. However, there are two exceptions to this trend: the services operated by Mulligan Bus Lines - which connects New Paltz with the Poughkeepsie station of the MTA Metro-North Railroad - and Coach USA - Short Line. However, the rise in passengers per mile for Coach USA - Short Line was negligible.

SERVICE AREA

This section of the report will describe the Ulster County service area in terms of various data which can be gathered from the 2000 U.S. Census. Several socioeconomic characteristics are presented, and these are then utilized to develop an aggregate “transit needs score” which ranks areas in Ulster County according to their propensity and need to utilize public transportation. Finally, information from the 2000 U.S. Census regarding people’s commuting habits (i.e., the “journey-to-work” data) will also be examined to determine the locations between which people in Ulster County regularly travel.

Socioeconomic Characteristics

There are various socioeconomic characteristics which can be utilized to describe Ulster County and to determine the areas of the county where public transportation would likely be most utilized and where service should be developed.

Figure 8 illustrates the population by census tract in Ulster County, and Figure 9 illustrates the population density in terms of people per square mile. Clearly, the western areas of the county are both less populated and less densely populated, while the areas nearest the Hudson River along the eastern edge of the county are generally more populated. The communities of Kingston, New Paltz and Saugerties are the most densely populated portions of Ulster County.

Senior citizens are more likely than people in general to utilize public transportation. Figures 10, 11 and 12 illustrate senior citizen population, percent of total population and senior citizen population density for seniors older than 65, respectively. The areas in which senior citizens over age 65 are most densely concentrated are in Saugerties, Kingston and Highland. Figures 13 through 15 illustrate the same statistics (i.e., aggregate, percent and density), but for senior citizens more than 75 years of age. However, the data remains essentially unchanged, with Kingston, portions of Saugerties and Highland showing the highest densities of senior citizens over age 75.

Another group more likely than people in general to utilize public transportation are youths, since many cannot yet operate an automobile. Figures 16, 17 and 18 illustrate the youth population, percent of total population and population density of youths in Ulster County, respectively. In terms of both aggregate numbers and percentage of the population, most youths live in the areas in the eastern portion of Ulster County in areas surrounding some of the more established “urban centers”. However, in terms of population density, the areas most densely populated with youths are again the urban centers of Kingston, Saugerties and Ellenville.

Another group with a high propensity to utilize public transportation are households

which - for whatever reason - do not have an automobile available. Figures 19, 20 and 21 illustrate the number of zero car households, percent of zero car households and zero car household density in Ulster County, respectively. Interestingly, in terms of the aggregate number of zero car households illustrated in Figure 19, the Woodstock area ranks highly. However, in terms of the density of zero car households, the urban centers of Saugerties, Kingston, New Paltz and Ellenville once again rank highly.

Clearly, people who live below the poverty line are more likely to utilize public transportation since they may not be able to afford an automobile. Figures 22, 23 and 24 illustrate the population in poverty, the percent of population in poverty and the density of the population in poverty in Ulster County, respectively. Interestingly, in terms of the percentage of population in poverty, the western - and more rural and remote - areas of Ulster County rank highly. However, in terms of the density of the population in poverty, the urban centers of Saugerties, Kingston, New Paltz and Ellenville once again rank highly.

Figures 25 and 26 illustrate the number and percentage of people in Ulster County who are already utilizing public transportation, respectively. Once again, the communities of Kingston, New Paltz, Saugerties and Ellenville rank highly in terms of percentage. Interestingly, however, large census tracts along the New York State Route 28 corridor and north of Ellenville along the U.S. Route 209 corridor also rank highly; this may be due to the fact that some of these census tracts are very large in physical terms and the data may be reflecting a small portion within the tract which has not been physically subdivided. It should also be kept in mind that the highest classification for the percent of the total population utilizing public transportation is “more than three percent”, which is - in any event - a relatively low percentage of the total travel market.

People in the labor force also are possible candidates for public transportation service. Figures 27 and 28 illustrate the number and density of people in Ulster County in the labor force, respectively. Once again, the urban centers of Kingston, New Paltz and Saugerties rank highly in terms of labor force density. In general, the eastern portion of Ulster County has the predominant density of people within the labor force.

Finally, the location of employment in Ulster County is also reflective of areas that have a need for public transportation services. Figures 29 and 30 illustrate the number and density of employment locations in Ulster County, respectively. Similar to the previous data, the urban centers of Kingston and New Paltz rank highly in terms of employment density. The communities of Ellenville, Saugerties and Woodstock are also highly ranked, as are areas north of Kingston (i.e., the Town of Ulster) and south of Kingston along New York State Route 32. However, these areas do not rank as high as Kingston and New Paltz in terms of employment density. Interestingly, however, large census tracts along the U.S. Route 9W corridor as well as along the U.S. Route 209 corridor between Ellenville and Kingston rank highly in terms of aggregate numbers. Overall, almost all of the measurable employment and employment density in Ulster County is located in the eastern portion of the county.

Transit Needs Score

All of the previously cited data from the 2000 U.S. Census was gathered and synthesized to produce a “transit needs score”, which shows where in Ulster County the need and propensity to utilize public transportation services are greatest. As seen in Figure 31, the expected urban centers of Kingston, Ellenville, New Paltz and Highland rank highly, as do areas along the southern edge of Ulster County near Wallkill and along the U.S. Route 209 corridor between Kingston and Ellenville.

In the aggregate, the analysis indicates that public transportation services are presently being provided in those areas where they are most needed, although some adjustments and service enhancements may increase the effectiveness of the services offered by the various providers.

Journey To Work Information

As was previously mentioned, the 2000 U.S. Census also provided a wealth of information regarding the work and residence locations of people who either live or work in Ulster County. Table 11 shows where Ulster County residents traveled to for work, where people who filled Ulster County jobs traveled from, and what was the “net flow” of trips either to or from Ulster County according to the 2000 U.S. Census.

As seen in Table 11, most Ulster County residents traveled to jobs within Ulster County itself, and most Ulster County jobs were filled by Ulster County residents. However, when the “net flow” of intercounty travel is considered (i.e., when the travel by Ulster County residents to places outside the county for work is reconciled with the number of people from that other county traveling back into Ulster County for work), Dutchess County saw the most Ulster County residents traveling there for work, followed by Orange County. The county which contributed the largest net flow of trips to fill Ulster County jobs was Greene County.

Interestingly, historical census data indicates that the same situation in terms of net flows was also true for the 1990 U.S. Census journey-to-work information. The number of trips to Dutchess County has increased from 6,150 net outflow trips to 7,255, and the number of trips to Orange County has increased from 4,814 net outflow trips to 6,680. However, the number of “net inflow” trips from Greene County decreased from 571 in 1990 to 510 in 2000. It should be noted that the number of jobs within Ulster County itself declined from 56,617 jobs in 1990 to 54,375 jobs in 2000. This is likely due to the loss of jobs at IBM in Ulster County.

It is also interesting to note that Ulster County is increasingly becoming part of the New York City commutershed. The number of trips to Manhattan has increased from 833 net outflow trips in 1990 to 1,475 net outflow trips in 2000, a 77 percent increase.

The accompanying tables will further delineate the trips between specific municipalities

in those counties which have the highest level of trip interaction with Ulster County and municipalities within Ulster County itself. The accompanying table summarizes the number of trips between Ulster County and Dutchess County and shows only the top ten municipalities in each county which either generate or receive trips.

**Ulster County-Dutchess County Trip Activity
(Top Ten Municipalities)**

Ulster County Residence Locations	Number of Work Trips to Dutchess County	Dutchess County Work Destinations	Total Work Trips
Esopus Town	1,034	Beacon City	274
Gardiner Town	373	East Fishkill Town	658
Kingston City	879	Fishkill Town	646
Lloyd Town	2,008	Hyde Park Town	469
Marlboro Town	1,045	La Grange Town	264
New Paltz Town	1,067	Poughkeepsie City	2,059
Plattekill Town	861	Poughkeepsie Town	4,311
Rosendale Town	400	Red Hook Town	487
Saugerties Town	849	Rhinebeck Town	708
Ulster Town	704	Wappinger Town	370
Dutchess County Residence Locations	Number of Work Trips to Ulster County	Ulster County Work Destinations	Total Work Trips
Clinton Town	121	Esopus Town	156
East Fishkill Town	102	Kingston City	1,000
Hyde Park Town	405	Kingston Town	52
Milan Town	115	Lloyd Town	443
Pleasant Valley Town	119	Marlboro Town	122
Poughkeepsie City	535	New Paltz Town	483
Poughkeepsie Town	476	Saugerties Town	156
Red Hook Town	631	Shawangunk Town	84
Rhinebeck Town	293	Ulster Town	642
Wappinger Town	152	Wawarsing Town	105

The next accompanying table summarizes the number of trips between Ulster County and Orange County and again shows only the top ten municipalities in each county which either generate or receive trips.

**Ulster County-Orange County Trip Activity
(Top Ten Municipalities)**

Ulster County Residence Locations	Number of Work Trips to Orange County	Orange County Work Destinations	Total Work Trips
Esopus Town	195	Crawford Town	668
Gardiner Town	547	Goshen Town	392
Kingston City	194	Highland Town	188
Lloyd Town	490	Middletown City	441
Marlboro Town	1,052	Monroe Town	174
New Paltz Town	582	Montgomery Town	1,151
Plattekill Town	1,446	New Windsor Town	755
Rochester Town	198	Newburgh City	1,320
Shawangunk Town	2,711	Newburgh Town	1,886
Wawarsing Town	547	Wallkill Town	730
Orange County Residence Locations	Number of Work Trips to Ulster County	Ulster County Work Destinations	Total Work Trips
Cornwall Town	88	Gardiner Town	80
Crawford Town	137	Kingston City	158
Goshen Town	57	Lloyd Town	197
Middletown City	99	Marlboro Town	182
Monroe Town	65	New Paltz Town	286
Montgomery Town	281	Plattekill Town	129
Newburgh City	104	Rosendale Town	43
Newburgh Town	557	Shawangunk Town	396
New Windsor Town	153	Ulster Town	123
Wallkill Town	158	Wawarsing Town	228

Similar to the previous two tables, the next accompanying table summarizes the number of trips between Ulster County and Westchester County and once again shows only the top ten municipalities in each county which either generate or receive trips. It should be noted that both Bedford and Rye were tied for tenth place in terms of the number of work trips destined there from Ulster County. In addition, the City of Mount Vernon, the City of Rye and the Town of Rye were also all tied for ninth, tenth and - by default - eleventh place in terms of the number of residents who traveled to Ulster County for work.

**Ulster County-Westchester County Trip Activity
(Top Ten Municipalities)**

Ulster County Residence Locations	Number of Work Trips to Westchester County	Westchester County Work Destinations	Total Work Trips
Esopus Town	84	Bedford Town	36
Gardiner Town	51	Cortlandt Town	134
Kingston City	85	Greenburgh Town	160
Lloyd Town	114	Harrison Town	74
Marlboro Town	136	Mamaroneck Town	41
New Paltz Town	71	Mount Pleasant Town	130
Plattekill Town	157	Mount Vernon City	41
Saugerties Town	53	Peekskill City	62
Shawangunk Town	78	Rye Town	36
Wawarsing Town	83	White Plains City	137
		Yonkers City	87
Westchester County Residence Locations	Number of Work Trips to Ulster County	Ulster County Work Destinations	Total Work Trips
Cortlandt Town	26	Esopus Town	17
Greenburgh Town	36	Kingston City	45
Mamaroneck Town	9	Lloyd Town	23
Mount Kisco Town	11	Marbletown Town	16
Mount Pleasant Town	18	New Paltz Town	28
Mount Vernon City	8	Rosendale Town	11
New Rochelle City	32	Shandaken Town	11
Peekskill City	44	Shawangunk Town	10
Rye City	8	Wawarsing Town	31
Rye Town	8	Woodstock Town	15
Yonkers City	26		

Finally, the next accompanying table summarizes only the number of work trips made by Ulster County residents to Manhattan (i.e., New York County). Similar to the previous tables, the accompanying table shows only the top ten municipalities in Ulster County which generate trips.

**Ulster County To Manhattan Work Trip Activity
(Top Ten Municipalities)**

Ulster County Residence Locations	Number of Work Trips to New York County (Manhattan)
Gardiner Town	69
Lloyd Town	97
Marbletown Town	92
Marlboro Town	91
New Paltz Town	127
Plattekill Town	84
Rochester Town	226
Saugerties Town	79
Shawangunk Town	118
Woodstock Town	213

An additional informational item which the 2000 U.S. Census journey-to-work data provides is a pairing of trip origins and destinations which can provide a list of the actual number of trips originating in one municipality and destined for another. Table 12 shows these “trip interchanges” between Ulster County and either Dutchess County or Orange County where there were more than 250 trips between municipalities.

Finally, as can be seen in Table 12, the only municipalities in Dutchess County to which Ulster County residents traveled to for work in relatively large numbers were the City of Poughkeepsie and the Town of Poughkeepsie. Interestingly, no municipality in Orange County sent more than 250 residents to a single municipality in Ulster County.

STAKEHOLDER INTERVIEWS

Much of the information gathered in the analysis has been quantitative in describing the public transportation system and its setting within Ulster County. Stakeholder interviews offer a valuable qualitative view of current and desired conditions for public transportation. Because the current analysis is being conducted at the same time a long range transportation plan is being developed, a single set of interviews were conducted to support both studies.

Methodology

An important input of any transit analysis is to identify issues and concerns that should be addressed. The topics include the role of public transportation, its deficiencies and opportunities, along with suggested improvements. The stakeholder interview process consisted of three basic steps: identification of the stakeholders, list of topics to be discussed and finally, the actual conduct of the interviews. As noted above, the process was tailored to assure useful information for both the transit and long range analyses.

The list of stakeholders was selected in consultation with Ulster County agency staff. The Consultant provided a list of the types of organizations that would provide a broad cross-section of views. Because of the number of stakeholders and their linkages, it was decided that the interviews would be conducted in panels with persons from the same organization, common or shared interest or perspective. A total of eleven panels were held as follows:

- Human Service Providers
- Transportation Agency Staff
- Emergency Responders
- Municipal Leaders
- Citizen and Special Interest Groups
- City of Kingston
- Tourism and Visitor Industry
- Transit Operators
- Post Secondary Education
- Elementary and Secondary Education
- Chamber of Commerce/Business and Industry

Several dozen individuals from numerous agencies and organizations were included in the initial stakeholder list with the attendees presented in Table 13. The stakeholders represented a broad range of government agencies, non-profit organizations and private sector interests.

While the stakeholder interview process provides a flexible format for soliciting views, a

list of topics was prepared prior to the conduct of the interview. It provided an outline of issues to be discussed and in some cases led to the discussion of other topics. This is not surprising in light of the diverse backgrounds of the participants. The discussion areas included more general questions about public transportation needs to specific improvements. The initial list of topics related to public transportation are presented below:

- knowledge and awareness of public transportation
- knowledge of how to get information
- system performance in terms of service, vehicles, operations and marketing
- primary users of existing system
- potential travel markets and users
- responsiveness of current public transportation system in meeting needs
- needs and markets that should be met or met better
- desired transit improvements
- bus shelters, amenities and park-ride lots
- terminal and multimodal facilities
- other issues and topics

The concluding step was the conduct of the interviews. As noted above, they were conducted in panels of several individuals. During the interviews, a facilitator presented the topics for discussion and solicited comments. The time spent on each topic varied, which reflected the interest and opinions of the participants. The individuals were assured that specific comments would not be attributed to them, which encourages candid responses.

Findings and Results

The stakeholder interviews provided a broad range of views on public transportation in Ulster County, which included both the two public systems and the private carriers. On some issues comments were isolated, while in others they represented a commonly held view. Another point is that the views are subjective and reflect attitudes and perceptions. Further, the majority of stakeholder interviewees are not transit riders. If they ride, it is infrequent and in response to unplanned events. Nonetheless, the comments provide a useful input to the planning process. The remainder of this chapter provides a summary and highlights the results of the

interview process that focused on public transportation. As noted previously, topics related to other modes and long range issues were explored.

- **Knowledge and awareness of who provides current public transportation system and what services are available** - None of the stakeholders indicated that they were frequent transit users, but were aware that there was public transportation service in Ulster County. In most instances, they cited seeing vehicles on the street and less often people waiting on street corners, which was the limit of their knowledge. Because of the relative extent of the service, UCAT was mentioned along with Trailways and one individual cited the CitiBus Trolley that has a streetcar appearance. Their knowledge of the transit system was limited and not based on first hand knowledge.

A consistent theme was that while they knew there was bus service in Ulster County, they did not know where and when the transit system operated. Many indicated that they would not know how to get information to use public transportation. Their view was that most residents of Ulster County did not know about the public transportation and were unaware of the carriers.

In some cases, interviewees had some knowledge of the transit system through clients in various human service programs. This included demand responsive services not available to the general public (e.g., senior citizens and Medicaid). One observation was that they did not become more familiar with services since their clients did not prefer riding the bus.

- **Knowledge of how to get information on how to use the public transportation system** - Consistent with the comments above, most participants indicated that they did not know how to get information on routes and schedules. Some suggested that possibly the transit providers and the services offered were in the phone book. A few individuals suggested that with an hour of time they could get the necessary information and plan a trip on the bus system.

Several individuals volunteered that the lack of information on the public transportation system was not surprising in view of the auto orientation of Ulster County. A few participants indicated that when they sought out information from UCAT, the agency was responsive and helpful. A reference was made to MetroPool, which prepared a map and information guide for Ulster County.

- **System performance in terms of service, vehicles, operations and marketing** - A wide range of comments were received on transit system performance. For most of the participants, the public transportation system was viewed favorably.

Some noted that the system appeared to be well managed, buses were clean and afforded a reliable travel mode, particularly in comparison to taxicabs. Many indicated that their evaluation reflected the rural nature and size of Ulster County with lengthy and diverse trip patterns. Also, the evaluation of the stakeholders was based on available funding.

Areas of concern were the relatively infrequent service and the lack of evening service in some communities (e.g., Kingston). Both complaints led to comments that it is difficult to use transit for many work trips and access to adult education programs. Concerns were expressed regarding the fares of intercity bus service and the need for more service in the region (e.g., Orange County).

A common deficiency was the lack of a “seamless” public transportation system. Integration among the carriers with respect to schedule coordination and fares was cited. As noted above, a recurring theme was the need for more and better public information and marketing. Comments made were that there was no single source of information on public transportation. Some indicated that some of the public information materials were confusing, difficult to understand and not user friendly.

- **Primary users of existing system** - For travel within Ulster County, there was almost unanimous agreement that the primary users of the current public transportation system were mostly “captive” riders. These are individuals who do not own a car or are unable to drive and must use the bus to make their trip. Groups frequently cited were low income residents, senior citizens, individuals with disabilities and students. The last group included persons traveling between home and school as well as shopping centers and after school jobs.

For trips outside Ulster County such as New York City, the users have markedly different characteristics. These commuters are typically “choice” riders who have a car available but decide to use public transportation.

There was agreement that only selected groups ride the bus system and demand responsive services and that the overall market share for transit among the general population is low.

- **Potential travel markets and users** - The majority of stakeholders thought that the potential transit market would be similar to that currently using the public transportation system (i.e., persons without a car and/or who don’t have a license). For trips within Ulster County, the automobile had the competitive

advantage in terms of travel time and convenience. The low density development patterns and dimensions of Ulster County make it a difficult area to serve with public transportation. However, one stakeholder thought that the cost savings of transit riding in comparison to driving would serve as an incentive for greater transit use. Most interviewees thought that travel time and convenience was a far more important determinant of mode choice than trip costs.

Many felt that the availability of the automobile was the ultimate factor in selecting travel mode and that if someone had a car they drove, and if they were captive they rode the bus or didn't make the trip. This dichotomy was thought to shift with even more auto users because of the rising affluence of newcomers to Ulster County. Another impediment to transit use was linked trips where commuters made other trips on their way to and from work. This would include daycare and shopping with two income households.

One market that was suggested for greater transit riding were children under 16 years of age. As noted previously, this could include traveling to after school jobs or recreational travel to shopping centers. Another possible market, particularly outside urban centers, would be greater reliance on demand responsive service rather than fixed route bus service. While several individuals indicated that more frequent service with a longer span would be necessary to generate a new transit market, they were not optimistic regarding the ability to attract new customers and make substantial gains in transit riding.

The transit market was viewed somewhat differently for longer trips to other counties, particularly New York City. The cost of parking and the long trip lengths could encourage transit use. Related suggestions included extending rail service to Ulster County. Also, weekend visitors could be induced to use train service to reach the area, with bus service enabling them to complete their trip. Related to visitors was the need for transit services at festivals, which had been served in the past.

- **Responsiveness of current public transportation in meeting needs** - The majority sentiment was that the transit system was responsive to the community in that it served the small group of people who have few mobility options. The transit system overall meets the needs of these individuals quite well given the constraints of the service area and funding. The concern was that only a very small portion of residents utilize the bus system and relatively few trips are made by public transportation. To an extent, this situation could be improved with more information, although Ulster County is viewed as an auto oriented community. People are used to driving and this habit is very hard to change.

Some suggested that the system could be more responsive to the needs by using

smaller buses and constructing terminals in urban areas, particularly Kingston. Another point was that human service clients' needs are not being fully met. Also, some anticipated increased weekend visitors from New York City with second homes in Ulster County. This market would suggest bus connections with rail service in Dutchess County.

Another intercounty issue was the impact of casinos in Sullivan County and possibly work trips for Ulster County residents. It was not viewed as a substantial marketing opportunity for public transportation. A final comment related to operations by one individual was that service should be concentrated in urban areas and not try to serve to any great extent the rural portions of Ulster County.

- **Needs and markets that should be met or met better** - Many of the comments in this portion of the stakeholder interviews were similar to points made above. This included attempting to transport human service clients, although it was recognized that the specialized services offered currently are probably the best approach. Bus service should respond to current improvement plans by Metro-North Railroad as well as linkages with Amtrak in Rhinecliff.

Service is not viewed as adequately serving workers and shoppers in the evening as well as students after school. One view was that people should be provided more transit options. This would include use of vintage trolley car buses, a shuttle route in New Paltz and service to Newburgh and Middletown. At the same time that people were mentioning needs, they also recognized that funding was limited and that Ulster County is a challenging environment for public transportation.

Other items mentioned included better coordination between transit operators in terms of service and fare. Also, information should be readily available and easy to follow for trip planning purposes. Related to this suggestion is a single source of information for all services.

- **Desired transit improvements** - Somewhat surprisingly, this topic generated a relatively limited number of suggestions. In part, this may reflect the limited knowledge of current routes and schedules. Also, the view was that transit's role is limited to captive riders since residents are oriented to the automobile and development patterns with low densities are difficult to support bus service. Another point regarding this portion of the interviews was that participants offered suggestions other than those related to service.

Specific service suggestions are summarized below:

- < Tourist oriented service to Woodstock
- < Kingston to Belleayre to serve work and social recreational trips
- < Shuttle routes in New Paltz and more densely developed areas
- < Shuttle route between Kingston and Hudson Valley Mall
- < Access to Newburgh and Beacon
- < Service north of U.S. Route 209
- < Possible replacement of fixed route service with demand responsive operations
- < Service to Albany
- < Extend direct rail service through Ulster County

Other suggested improvements are summarized below:

- < Improved schedule and fare coordination between operators
- < Passes and other multiple-ride fare media
- < UPASS program at UCCC and SUNY where student fees permit unlimited rides
- < UniTicket fare program that permits transfers between bus and rail service in Poughkeepsie

- **Bus shelters, amenities and park-ride lots** - Participants were asked to comment on physical attributes of the public transportation system. A frequent comment was that amenities such as benches and shelters would increase the awareness of the transit system. This is consistent with the comments discussed previously about the need for more public information. One individual indicated that they did not want shelters that contained advertising. Another common observation was that there was a need for more benches and shelters to make riders' trips more comfortable. Interviewees typically noted that the nature of the service area did not warrant amenities throughout Ulster County. The view was that they should be at select sites where warranted by demand and potential usage. In addition to the more generic call for more densely developed areas, specific suggestions were made for Rosendale and Woodstock.

Two additional points about bus shelters were made. The first was the observation that UCAT was planning to install 16 shelters. Also, one panelist suggested that shelters be considered at locations where school buses stop.

The topic of park-ride lots did not generate a great deal of comment or discussion. Suggestions were made that municipal lots be used where ever possible. Also, the park-ride lot sites should support travel not only south, but also to Albany. Specific suggestions were Rosendale, Saugerties and Woodstock in the vicinity of New York State Routes 28 and 375.

- **Terminals and multimodal facilities** - Stakeholders were asked to comment on bus terminals and other waiting facilities in terms of locations and appropriate features. The majority of participants felt that this was an area that should be improved, although some comments were made as to whether there was a need and could the facilities be cost effective. A recurring theme was that such facilities appear warranted in the more urbanized portions of Ulster County. Frequent comments were made that terminals of some sort are necessary for Kingston, New Paltz and Ellenville, where the need was more directly related to ridership and development patterns.

Other communities cited more than once were Saugerties and Woodstock. Other locations suggested were: Wallkill, Plattekill at the New York State Thruway interchange and in the vicinity of U.S. Route 9W and New York State Route 199, U.S. Route 9W and New York State Route 299, along New York State 28 in Woodstock and New York State Routes 212 and 375 also serving Woodstock, as well as a site in the southern portion of Ulster County serving trips destined for Orange County.

A limited number of comments were made regarding the possible site for a terminal in Kingston. Sites mentioned included the current Trailways facility, the vicinity of the traffic circle leading to the New York State Thruway, Kingston Plaza (Hannaford's) and an existing parking garage in the Uptown area. Also, one participant mentioned the efforts of Ellenville to have a bus terminal constructed in their community.

There were few comments on specific attributes of the facilities other than they should serve as many transit operators as possible. Urban development opportunities were only mentioned for Kingston.

- **Other issues and topics** - The concluding portion of the stakeholder interviews regarding public transportation was to ask each panel to make any comments and suggestions that were not on the original list of discussion items. Diverse

comments were received in a few areas. The need for direct rail service in Ulster County was viewed by some as a worthwhile project that had the potential to attract transit riders.

The current situation in Kingston with respect to freight trains that block traffic for an extended period of time was cited. It is very disruptive and there is a need for strategies or facilities to remedy this situation.

Some discussion was held regarding the need for urban development patterns that support transit usage. This would include increased density, clustering development and design features that are transit friendly. The latter would include the placement of buildings closest to the street and the use of sidewalks.

The discussion above describes the process and comments of the stakeholders and provides timely input to the planning process and subsequent study steps.

FINDINGS AND RECOMMENDATIONS

The analysis has been directed in four areas: (1) service, (2) facilities, (3) fares and (4) marketing. Each of these topics are presented in terms of the current situation, an assessment of the current situation and opportunities for improvement. Discussion of these issues should lead to adoption of the plan and the establishing of a consensus for moving forward with implementation.

Service

In a previous section of the report, a description of the various public transportation services available in Ulster County in terms of route alignments, frequency and span of service was provided. This section of the report describes the service recommendations for the two major carriers (i.e., Ulster County Area Transit and Kingston CitiBus) which provide local public transit service in Ulster County. These recommendations are more strategic in nature; the intent is not to produce specific route realignment or schedule recommendations, which would be the case with a Transportation Development Plan (TDP). Moreover, the detailed ridership data (i.e., ride checks) to support such a tactical effort is not available. The current transit examination is intended to address the various strategic issues affecting public transportation in Ulster County. Nonetheless, the proposals provide an indication of future improvements.

Kingston CitiBus - Kingston CitiBus service has three basic bus routes (i.e., Routes A, B and C) and operates six days a week (i.e., no service operates on Sundays). A seasonal “Historic Trolley” route is also operated during the summer months seven days a week. The three core bus routes each have a one hour cycle time. The recommendations for CitiBus service are as follows:

- **Transit Hub and Pulse Point** - This recommendation consists of two suggestions which would improve mobility. The first suggestion is that the Kingston Plaza shopping center be the focal point for all bus routes. Second, buses should be scheduled to permit timed transfers at this location. With a “pulse scheduled” system, Routes A, B and C would all arrive at the shopping center at about the same time. After a short layover to permit transfers between routes, the buses would all depart this location. The attractive feature of this plan is that it serves a major generator and eliminates excessive waiting times to transfer between bus routes. This is particularly the case since the routes operate at hourly intervals.

An additional feature of this plan is that it would include scheduled times on a “clockface” basis. This is viewed as user-friendly, since patrons can easily remember bus times. For example, all buses could depart Kingston Plaza on the hour on a recurring basis (e.g., 9:00AM, 10:00AM, etc.) throughout the day. This

proposal is consistent with the current hourly service and alignments since all CitiBus routes already operate to the Kingston Plaza shopping center.

Although it is recognized that the geographical center of Kingston is likely somewhere in the midtown area (e.g., near the Kingston Hospital or City Hall), the creation of a “pulse point” at Kingston Plaza is most logical because it provides all of the CitiBus service area with a one-seat ride to the Hannaford’s supermarket at Kingston Plaza, which is an important travel generator for the clientele utilizing CitiBus. In addition, by locating the pulse point at the Kingston Plaza shopping center, transfers between the Kingston CitiBus system and the Ulster County Area Transit (UCAT) system are more easily facilitated because Kingston Plaza is the primary location served by UCAT in the City of Kingston.

- **Route Simplification** - The three CitiBus routes are very circuitous and could likely be simplified in terms of their geometry, thus increasing patron comprehension of the bus system. It might also be possible to increase patron comprehension of the CitiBus system by introducing new route designations (i.e., to more clearly indicate which parts of Kingston are being served) while still only utilizing three buses throughout the service day.

The seasonal Historic Trolley service is well-suited to its intended market and should remain unchanged.

- **Reduce Use of “On Request” Areas** - Kingston CitiBus should attempt to reduce the use of “on request” service areas (such as those that currently exist on Routes B and C) as much as possible. Although such “on request” areas can - in some cases - be useful, they can also make routes more circuitous and confusing to patrons (especially to occasional users of the bus system or those considering public transportation for the first time).

Ulster County Area Transit - The Ulster County Area Transit (UCAT) service operates nine bus routes as well as two Rural Route services. The Rural Routes provide demand responsive bus service in different portions of Ulster County on specific weekdays on a rotating basis and connect with Kingston and New Paltz.

Eight of the nine UCAT routes operate on weekdays, and one of these eight bus routes also operates on Saturdays. The ninth UCAT bus route only operates on Saturdays. There is no UCAT service on Sundays. Another feature of the UCAT bus network is that it does not have a complementary demand responsive service to meet the requirements of the Americans with Disabilities Act (ADA). Instead, fixed route services will deviate or “flex” from their normal alignment to satisfy ADA requirements. The recommendations for UCAT service are as follows:

- **Improve Frequencies and Spans of Service** - The current UCAT bus system is

well-situated throughout Ulster County; almost all major traffic generators, travel corridors and important State Routes are provided with some level of service. The system affords a high degree of coverage, particularly in light of the size of Ulster County and the dispersed development pattern.

The relative frequencies of service are consistent with the level of demand in terms of the existing ridership in that the present service is geared towards a transit dependent clientele. Further, the system focuses on the two largest concentrations of activity (i.e., Kingston and New Paltz) as well as the Ulster County Community College and the Hudson Valley Mall. However, certain key market segments (e.g., students traveling to after school activities) are not being served.

If the UCAT system is to grow its ridership and - by extension - its overall impact on the community, then the public transportation service needs to be operated in a more user-friendly manner. This implies improved frequencies and spans of service on the UCAT bus routes, as well as more consistent clockface headways whenever possible.

For example, major activity centers such as the Hudson Valley Mall should be provided with consistently scheduled service (e.g., hourly service at the same number of minutes past the hour) to and from communities such as Kingston or Saugerties. It is recognized that there is, to some extent, a tradeoff between providing user-friendly service (e.g., operating consistent headways) and overall efficiency; however, it is also felt that the possible gain in ridership is worth the effort.

- **Transit Hub and Pulse Point** - As part of the effort to provide uniform clockface headways on the various UCAT bus routes, a single common transfer point at which the various UCAT services can meet to transfer passengers at approximately the same time should be established in Kingston. Preferably, this UCAT pulse point would - similar to that proposed for Kingston CitiBus - also be located at the Kingston Plaza shopping center. As was previously mentioned, Kingston Plaza is the primary location served by UCAT in the City of Kingston and - for various reasons - is the most logical location for both systems to establish a common transfer center.
- **Eliminate Use Of “On Request” Service at Major Stops** - UCAT’s bus routes are “Flexible Fixed Routes”, meaning that the bus will go off-route to serve some locations either by informing the bus operator when boarding or on a pre-arranged reservation basis. This permits UCAT to avoid traveling to locations where no one is at the bus stop and delaying riders already on the bus. As was also noted previously, the flex arrangement also allows UCAT to satisfy the requirements of the Americans with Disabilities Act (ADA) and not have to operate a

complementary demand responsive paratransit system.

However, one drawback to this system is that many major stops (e.g., the Hudson Valley Mall) are served only on an “on request” basis on certain trips. This practice should be eliminated because major traffic generators should receive transit service on a consistent basis.

- **Eliminate “Closed Door” Service in Kingston** - Presently, UCAT bus routes must operate “closed door” service within the City of Kingston. This practice is meant to maximize the utilization of the Kingston CitiBus system for local trips within Kingston. This also has revenue implications since fares - combined with state and federal subsidies - affect the tax support from the City of Kingston.

However, it limits the choice of many potential patrons in the City of Kingston in terms of which bus route may be most convenient for them to utilize at any given time. For this reason, this policy should be eliminated and revenue sharing arrangements negotiated between Kingston CitiBus and UCAT.

- **Intercounty Service** - As part of the current study, travel patterns between Ulster County and its neighboring counties were examined. Clearly, the level of travel interchange between Ulster County and both Dutchess and Orange Counties is relatively large. However, many of both the origins and destinations are spread out and relatively dispersed, thus making them very difficult to serve economically with public transportation. For example, mode splits of between one to three percent would mandate concentrated travel markets far in excess of what the commuter travel patterns from the U.S. Census present. Also, intercounty trips could involve transfers between a bus from Ulster County with the local bus system in the adjacent county. In view of the trip lengths, the need to transfer would be a disincentive to transit riding. Further, the route distances and the need to provide several trips in the morning and afternoon would require considerable transit resources. An attractive alternative to the single occupant automobile and transit would be either carpools and vanpools.

Nonetheless, one of the UCAT bus routes already serves Newburgh in Orange County; another operator (i.e., Mulligan Bus Lines) links New Paltz with Poughkeepsie and its railroad station. Improved intercounty service would consist of improved frequency of service for these lines.

These results also suggest that opportunities for intercounty transit services are limited and expansion of the current system should be done in the context of a demonstration project, possibly using CMAQ funds. For example, NYSDOT will be implementing a ferry service between Newburgh and Beacon which will overcome inadequate parking at the Metro North station. Consideration was given to have a bus route operate between the southern portion of Ulster County

and the parking lot at the ferry stop in Orange County. The concern with such a proposal is the length of the trip and the number of transfers involved and

vehicles ridden. It would appear that the ferry service is better suited to a park-ride situation for Ulster County commuters.

To complete intercounty service, we propose that a new bus route should be operated linking Kingston Plaza, the Kingston Bus Terminal and the existing commuter parking lot at the intersection of State Routes 32 and 199 with the Rhinecliff Amtrak station in Dutchess County via the Kingston-Rhinecliff Bridge. This will allow Ulster County residents another opportunity to utilize public transportation to travel between Ulster County and New York City, Westchester and Putnam Counties or Albany.

Typically, rail-bus connections are better able to attract reverse commuters than persons who reside in outlying areas and travel to jobs in less distant locations. As noted above, this would be operated in the context of a demonstration project. Alternatively, the linkage between Kingston and the Rhinecliff station would be more direct, with a ferry connection such as discussed previously for Newburgh and Beacon.

- **Shopping Shuttle** - The concentration of retail activity in the vicinity of the Hudson Valley Mall makes it an important trip attraction in terms of shopping and jobs. At the same time, it is difficult to serve by transit since buildings are set back considerable distances from the road and there are no sidewalks. An alternative to the current routing and number of “on request” trips is to have a shuttle route that circulates through the numerous commercial properties and have the primary routes not divert. In this situation, the current bus routes would perform the line haul portion of the trip with a connecting shuttle performing the collection/distribution function.

Consistent with other proposals, it is suggested that this be operated as a demonstration project between Thanksgiving and Christmas when retail activity is greatest. The shuttle could also serve persons who drive to a store, park their car and then use the shuttle to visit other retail establishments. This type of operation has been employed in Bergen County. In the Lehigh Valley, the transit operator has created a unique brand for this service.

- **Upgrade of New Paltz Shuttle Route** - The present New Paltz Shuttle bus route operated by UCAT needs to be upgraded so that it utilizes a dedicated vehicle on a consistent headway (e.g., every 30 minutes) throughout the entire service day. Currently, only four round trips are operated on this bus route, with an irregular

headway. This bus route should serve the SUNY New Paltz campus, the New Paltz central business district and the commercial district along State Route 32. As is mentioned in another section of this report, the upgraded New Paltz Shuttle route could be funded with the proceeds from a U-PASS student transit fare instrument.

- **Provide Special Services** - During special seasonal events, some special transit services could be provided by UCAT to locations such as Woodstock or Belleayre from Kingston. These services would supplement the existing UCAT bus service to these locations.

Transportation Demand Management

Often, mode choice is thought of as a decision to drive alone or to utilize public transportation. In the challenging transit environment of Ulster County (e.g., low density, dispersed travel patterns and high levels of auto ownership), only a very small percentage of residents utilize the transit system. For the local bus system, most riders are “captive” and do not have a car available for their trips. For these individuals the transit system offers a “life line” service since the travel decision is to use transit or not make the trip. For the intercity bus riders, most patrons are “choice” in that they could have driven, but opted to ride the bus for a variety of reasons.

To provide another modal option, steps should be taken to encourage shared ride, which includes carpools and vanpools. While the current analysis focuses on public transportation, efforts should be directed at encouraging greater utilization of shared ride. This would include carpool matching programs, outreach to employers, guaranteed ride home, a single source of information, improved marketing and carpool staging parking lots.

Land Use and Design

An important ingredient to a successful transit system is the land use patterns and the way development occurs in Ulster County. Public transportation works best where development and activities are concentrated or clustered in specific communities that are already served by the transit system. In this way, transit can be viable in terms of utilization and productivity. With continued growth in Ulster County, it is likely that new areas will be developed. To the extent possible, this activity should be concentrated adjacent to existing transit nodes and along established corridors.

This is in contrast to the situation where new development occurs beyond the existing transit coverage area. Often, these projects request transit service, which places demands on the transit operator to meet these needs. Buses may be required to divert to these sites from the traditional route, which adds time to the trips of current riders and results in less frequent service

unless buses are added, which is costly. Another system response has been the on-call service which is confusing to riders, results in irregular headways and makes scheduling of service more difficult.

Clearly, a preferred strategy is to encourage development patterns that support public transportation. Public agencies or publicly supported non profit human service providers should be discouraged from relocating to sites beyond the coverage area of the existing transit system. Moreover, they should attempt to locate in those more densely developed areas where the level of public transportation is greatest. Private developers should also be cognizant of public transportation in site selection and the need for mobility options other than the private automobile.

The positive interaction of land use and public transportation should be an evaluation criterion in the land use review function of the Ulster County Planning Board. Further, efforts should be undertaken to educate municipal officials regarding this matter since zoning rests with local boards.

Related to land use and development patterns are the spatial arrangements and the features that are incorporated in development proposals. Development patterns in most suburban and rural residential neighborhoods, employment centers and retail activity corridors is generally based on the assumption that people will travel to the destination via the automobile. This results in neighborhoods, business parks and commercial strips with poor or non-existent pedestrian amenities such as sidewalks, crosswalks and pedestrian phases at traffic lights.

Also, the general suburban development pattern for commercial establishments is to place buildings at the rear of any parcel with a large parking lot separating the building from the road. Commercial buildings also tend to be isolated from one another with each having their own parking facilities with separate entrances and exits from the street. These conditions, along with the lack of pedestrian amenities, discourage transit ridership and make the service less productive. This is clearly evident in the commercial development patterns in the vicinity of the Hudson Valley Mall. No provisions are made for pedestrians and distances to the buildings are quite long. If the bus diverts to each of these locations, it generates a lengthy and circuitous trip for the current riders and discourages new riders. In a similar fashion, many residential projects are being developed as gated communities with street patterns that are not conducive to transit operations or use.

For transit to be viable, passengers must be able to safely and conveniently walk to the point where they can access the transit system. Other elements would be bus pull-outs to permit safe boarding and alighting. Accordingly, transit friendly design guidelines should be encouraged by the Ulster County Planning Board and an element of all site design reviews.

Facilities

Another important element of the study is to examine public transportation facility needs in terms of both park-ride lots and bus terminals. With respect to the former, the analysis has been broadened to include commuter parking lots which support carpool staging activities. There are only a few areas and bus services in Ulster County that could support a more conventional park-ride lot. However, when the demand for this type of facility is combined with the demand generated by those who carpool, some locations may satisfy reasonable warrants to justify a commuter parking facility. Figure 32 indicates the locations of the existing and proposed facilities. The Appendix provides aerial photographs of the existing and proposed sites for both the bus terminals as well as the commuter parking facilities.

A bus terminal implies a facility that typically provides off-street locations for buses and passenger boarding and alighting. Further, the facilities should comprise hubs or focal points where riders can transfer from one bus route to another. Also, the terminal should provide various amenities (e.g., a building with a controlled climate, adequate lighting, restrooms, etc.) as well as a means to purchase tickets.

Bus terminals are most commonly located within an urban area and provide parking only to the extent that the site they are located on allows them to do so. Most typically, bus terminals do not have a large amount of parking and are located in such a manner as to facilitate easy connections with the local transit service. By being located in an urban area, they are also usually located at a distance from most residential areas at which taxicab fares to reach the terminal are reasonable.

Terminals - Presently, there are only two major public transportation terminals located in Ulster County. These facilities - which are primarily utilized by the commuter/intercity service providers - include a waiting room with public telephones, public restrooms, some retail activities and a ticket office. These facilities also allow for the off-street loading and unloading of buses. It should be noted that the ticket offices at these bus terminals are staffed with bus company personnel. At some other major bus stops throughout Ulster County where passenger activity does not warrant a terminal, a “ticket agent” is utilized. These ticket agents are typically an existing retail establishment at or near the bus stop which has a contractual arrangement with the bus company to sell tickets on a commission basis.

All future terminal facilities should incorporate these elements as part of their standard design. In addition, any existing and planned terminals should also provide for boarding and alighting areas for the commuter/intercity service providers that are protected from the weather as passengers proceed to and from their buses. Any existing and planned terminals should also provide bicycle racks or bicycle storage lockers - or perhaps both, if appropriate - to help facilitate the use of bus service by bicyclists, along with a taxi stand. A “kiss-ride” lane (i.e., a passenger pick-up and drop-off lane) for bus passengers should also be provided.

Provisions should be also be made for local buses (i.e., Kingston CitiBus and Ulster

County Area Transit) to provide connecting service. This could be accomplished either by off-street loading and unloading or, as will be described more fully in a subsequent section of this report, by designating bus stops on adjacent local streets. To the extent possible, future terminal facilities should also provide some parking spaces. However, this feature is not a priority for a bus terminal and - as was previously mentioned - is dependent on the specific conditions and dimensions of a site. The existing terminal facilities in Ulster County are as follows:

- **Kingston Bus Terminal** - This facility is located on Washington Avenue in Kingston. Served by Adirondack/Pine Hill Trailways, with limited service provided by Coach USA - ShortLine, this terminal is located a short distance from the interchange with the New York State Thruway (I-87) but is still within walking distance of the Uptown area of Kingston. Connecting service is provided by CitiBus and UCAT, which utilize city streets for boarding and alighting. As was previously mentioned, UCAT service in Kingston is provided on a “closed door” basis.

Although served by the local transit providers, the Kingston Bus Terminal is not the hub of the local bus system in Kingston; that function is served by the Kingston Plaza shopping center. One attractive feature of the existing Kingston Bus Terminal is that a large canopy provides some level of weather protection for passengers as they board and alight from the commuter/intercity buses.

Currently, parking is available at the Kingston Bus Terminal. Approximately 40 spots are available; on the day that field observations were conducted, approximately 37 spots were being utilized.

Both the building and dimensions of the site are constrained and not consistent with the level of activity. It does not afford a very high level of amenities to patrons and parking is not sufficient to meet demand. Clearly, one possibility is to try and modernize the current facility and provide a more comfortable environment for riders. It should be recognized that there are limitations with this approach because of space constraints. As was previously mentioned, the site is convenient to both the Uptown area of Kingston and I-87.

Future Opportunities - A review of the current facility suggests that a bus terminal, including a passenger terminal building of approximately 5,000 to 6,000 square feet, would be appropriate for the level of passenger activity in Kingston. The bus terminal would include all of the previously cited elements of a standard design for future terminal facilities, including some retail activity, bicycle racks, public telephones and - if possible - some parking. The bus terminal in Kingston would also include as many as six off-street bus berths for the commuter/intercity buses. These berths would be of a “deep sawtooth” design.

Accommodations along adjacent streets would also be provided for five local transit buses (i.e., three CitiBus vehicles and two UCAT vehicles). The transit buses could be facilitated utilizing either shallow sawtooth berths or by a straightforward linear arrangement along the curbfront. This is possible because the transit buses presently utilized by both CitiBus and UCAT are shorter than the “over-the-road” motorcoaches utilized by the commuter/intercity service providers. Whichever site is eventually selected for a bus terminal in Kingston should continue to have good access to the New York State Thruway (I-87), such as is provided along the Washington Avenue corridor.

Initial consideration for a new bus terminal in Kingston was given to the site of the existing Uptown Parking Garage, located along North Front Street. The initial conceptualization for this site was for a multi-modal facility, with both commuter/intercity and transit bus service being accommodated on the lower level of a garage structure, with automobile parking provided on the upper levels. However, current plans for this site call for a residential condominium apartment tower to be constructed above a multi-level garage, which precludes its use as a bus terminal.

There are three possible opportunities for a future expansion and/or relocation of the Kingston Bus Terminal. The first option is to expand the existing site either by combining it with the adjacent Utility Platers site immediately to the north, by combining it with the site immediately to the east of the current terminal, or by some combination of these two alternatives. This would permit construction of a more modern facility with increased parking. However, this would involve both the demolition of the existing structures on the site as well as the acquisition of active businesses and their properties. In addition, the existing site is still not the hub of the local transit system and therefore an expanded and more modern facility at the site would still not lend itself to integration with the local transit system as well as another site might.

The other two options involve relocating the Kingston Bus Terminal. The first of these would utilize the site of the Ulster County Sheriff’s Office at the intersection of Frog Alley and Schwenk Drive. The Sheriff’s Office is scheduled to move to a new facility. This site would be adequate to construct a modern bus facility, but would require the demolition of the existing structures on the site.

Further expansion of this site is possible by combining it with the adjacent Kingston Pontiac automobile dealership site immediately to the east. However, this would involve both the demolition of the existing structures on the site as well as the acquisition of an active business and its property. This option would likely require that a new traffic signal be located at the intersection of Frog Alley and Schwenk Drive.

Finally, the most promising location for a new Kingston Bus Terminal is a parcel east of the existing Hannaford's supermarket in the Kingston Plaza shopping center. This site presents a "blank slate" for development because it is on open land. An advantage of this location is that it could readily accommodate the commuter/intercity service providers as well as the local transit operators. As was previously mentioned, this site is also located adjacent to the Hannaford's supermarket, which is a significant traffic generator for the Kingston CitiBus system. Access to and from I-87 is also relatively easy, and the possibility exists that Colonel Chandler Drive (I-587) would be "de-designated" as part of the Interstate Highway System and be converted to an arterial roadway with more direct access roadways in the vicinity of this parcel. One concern with this site is that it is located in the Esopus Creek floodplain; however, this could be remedied with an appropriate amount of fill which would raise the elevation of the site.

The discussion above has been directed primarily to the commuter/intercity service providers and - depending on the design - provisions could be made either for the on-street loading and unloading of the local transit bus services or even for their off-street loading/unloading, if a site could accommodate it. However, a less ambitious scheme would be to construct separate facilities for UCAT and CitiBus at Hannaford's in the Kingston Plaza shopping center should the commuter/intercity bus terminal remain at its current site.

This could be accomplished by dedicating space to the transit function and either constructing canopies and shelters or through the more costly approach of a transit terminal. While the supermarket is a major trip generator, one concern with the latter approach is having two separate facilities for intercity and local buses (i.e., there would be no benefits from an intermodal connection between the service providers).

- **New Paltz Bus Terminal** - This second terminal is located at the intersection of Main and Prospect Streets in New Paltz. This facility is utilized by Adirondack/Pine Hill Trailways and connections are possible with local carriers (i.e., UCAT, Mulligan Bus Lines). The facility provides a small waiting area, ticket sales and adjacent retail activities. Weather protection is not provided to passengers as they board and alight buses. This facility is similar to the terminal in Kingston in that it is situated on a small parcel.

Currently, some limited parking is available at the New Paltz Bus Terminal. Approximately 25 spots are available; on the day that field observations were conducted, approximately 18 spots were being utilized. As was previously mentioned, the New Paltz Bus Terminal does not currently afford any protection from the elements for passengers boarding and alighting buses.

Future Opportunities - A review suggests that a bus terminal, including a

passenger terminal building of approximately 3,000 to 4,000 square feet, would be appropriate for the level of passenger activity in New Paltz. The bus terminal would include all of the previously mentioned elements of a standard design for future terminal facilities, including - if possible - some parking. The bus terminal in New Paltz would also include as many as three or four off-street bus berths for the commuter/intercity buses. Similar to the proposed design for a Kingston facility, these berths would be of a “deep sawtooth” design.

Accommodations along adjacent streets would also be provided for two local transit buses (i.e., for both Mulligan Bus Lines and UCAT vehicles). The transit buses could be facilitated utilizing either shallow sawtooth berths or by a straightforward linear arrangement along the curbfront. As with the proposed Kingston facility, this is possible because the vehicles presently utilized by both Mulligan Bus Lines and UCAT are shorter than the “over-the-road” motorcoaches utilized by the commuter/intercity service providers.

The bus terminal in New Paltz should remain in the central business district, where it can more effectively serve the entire community. The SUNY New Paltz campus itself is already served by several Adirondack/Pine Hill Trailways trips and would also be well-connected with a downtown bus terminal by an expanded UCAT New Paltz Shuttle.

A suggestion has been made that a bus terminal be constructed on the SUNY New Paltz campus since many riders are students. One concern with an additional bus terminal on the campus is that it would essentially require the duplication of the ticket office function already provided for at the downtown New Paltz Bus Terminal.

Another suggestion has been made that a bus terminal facility be constructed at the site of the park-ride lot at Exit 18 of the New York State Thruway. This is not convenient to either the downtown New Paltz area or to the SUNY New Paltz campus. This site is oriented almost exclusively to automobile access. Issues related to the provision of a ticket agent would also be a concern.

The current location of the New Paltz Bus Terminal is well-situated; it would be difficult to find a similar site for a new bus terminal in downtown New Paltz that does not require the demolition of existing structures and the acquisition of businesses and property. In the near term, an increased level of amenities (e.g., canopies to provide protection from the weather) could be provided for bus passengers at the existing New Paltz Bus Terminal. In the long term, the aforementioned features of a modern and expanded terminal could be provided if the existing site were to be expanded.

There are several other possible opportunities for future bus terminal facilities throughout

Ulster County. These are as follows:

- **Ellenville** - A station agent used to sell tickets from Dollar World, located along Canal Street in downtown Ellenville. The Dollar World store has now closed; although this arrangement was modest, it was also functional.

The municipality of Ellenville has developed a plan for bus terminal facility which includes a passenger terminal building of approximately 2,000 square feet. This terminal would be located immediately east of Dollar World along Center Street. The plan calls for a bus terminal with on-street loading and unloading of buses; the building would include public restrooms and a ticket office. While this is a preliminary plan for physical facilities, one issue that would need to be addressed is staffing at the new terminal.

The ticket seller at Dollar World was a commissioned ticket agent; at the proposed terminal in Ellenville either some arrangement for staffing from Coach USA- ShortLine would have to be developed, or some retail amenity would need to be included in the planned terminal building so that the proprietor could become a ticket agent in a manner similar to the arrangement that existed at Dollar World. This plan has been submitted as a Transportation Improvement Plan (TIP) project and could help stimulate economic redevelopment in the downtown Ellenville area.

Another scheme that was previously considered was to create a new terminal facility with all of the appropriate amenities along Market Street, which connects Center and Canal Streets in downtown Ellenville. This would allow for buses to easily reverse direction and head back onto U.S. Route 209. This new facility could utilize shallow sawtooth bus berths along Market Street. Similar to the new bus terminal proposed by Ellenville along Center Street and submitted as a TIP project, a new Market Street bus terminal in Ellenville could also help stimulate economic redevelopment in the downtown area.

Future Opportunities - Discussions should be initiated between Ellenville and Coach USA - ShortLine to establish an operating agreement for any new bus terminal facility.

- **Saugerties** - There is no bus terminal in downtown Saugerties, and the opportunities for one appear to be limited by the narrow streets and sidewalks and current development patterns. Moreover, demand does not appear to be sufficient to warrant a new terminal.

Future Opportunities - A more economical approach would be to construct canopies or install shelters. An example of this possibility is the provision of some level of amenity - such as a bus passenger waiting shelter - at the Price

Chopper supermarket along State Route 212. This established retail location could also serve as a commissioned ticket agent.

- **Woodstock** - Similar to Saugerties, there is no bus terminal in downtown Woodstock and the opportunities for one appear to be limited. Houst Hardware serves as a ticket agent for Adirondack/Pine Hill Trailways.

Future Opportunities - One possibility is to provide some expanded passenger amenities - such as passenger waiting shelters or canopies - to provide some level of weather protection. Such amenities and architectural treatments would have to recognize the unique nature of the area. Pedestrian enhancements could include special striping, signage and speed “humps” along either side of Mill Hill Road and Tinker Street (i.e., State Route 212) in front of Houst Hardware and the Woodstock Green.

- **Wallkill** - A possibility for some type of terminal and/or park-and-ride facility in Wallkill exists near the connection to the existing rail trail; some parking already exists at Garrison Park. This facility could possibly provide some type of connection with transit services in neighboring Orange County.

Future Opportunities - The current as well as the potential demand for public transportation service in Wallkill would suggest a more modest treatment such as a shelter, rather than a bus terminal.

Finally, some enhanced level of passenger amenities (i.e., new bus passenger waiting shelters or canopies) could be provided in the Town of Ulster at some of the more important passenger traffic generators, such as the Hudson Valley Mall.

Commuter Parking Lots - There are several commuter parking lots located throughout Ulster County. These lots can be utilized either to access public transportation services or permit carpool staging. Although the focus of this study is on public transportation throughout Ulster County, this section of the report also examines commuter parking lots which may be utilized exclusively for carpool staging.

All existing and future commuter parking lots should adhere to a minimum standard design whose elements include such features and amenities as:

- trailblazer signs
- entrance signs
- bus stop signs (if appropriate)
- roadway pavement

- pedestrian surfaces
- security features (e.g., emergency telephone)
- adequate lighting
- attractive landscaping
- passenger waiting shelters
- trash receptacles
- newspaper vending machines
- public telephones

Finally, a unified system of advertising, promoting and marketing the commuter parking lots needs to be developed so that potential patrons of the commuter parking lots are aware of their existence and where they are located. The existing commuter parking lot locations in Ulster County are as follows:

- **New York State Thruway Exit 20 (Saugerties)** - This commuter parking lot, served by Adirondack/Pine Hill Trailways, is poorly paved, although some lighting is provided. There are approximately 12 parking spots available; on the day that field observations were conducted, approximately four spots were being utilized.

Future Opportunities - It appears that this lot can be expanded to approximately 40 to 50 spaces. In addition, a bus passenger waiting shelter should be provided along the access road for both Adirondack/Pine Hill Trailways and UCAT services.

- **State Routes 32 and 199** - This commuter parking lot, served by Laidlaw Transit, is unpaved and has access issues which make it difficult to enter and leave the lot from State Route 32. There are approximately 12 to 15 parking spots available; on the day that field observations were conducted, approximately eight spots were being utilized. This commuter parking lot developed informally and is located near the Kingston-Rhinecliff Bridge (i.e., State Route 199); it is possible that either commuters to jobs in Dutchess County or commuters from Dutchess County enroute to the New York State Thruway are the primary users of this commuter parking lot.

Future Opportunities - It appears that this lot can be expanded to the west to accommodate approximately 50 spaces. In addition, a bus passenger waiting shelter should be provided along State Route 32. Some of the access issues may be addressed with either a new traffic signal at the lot's entrance or by moving the entrance to the commuter parking lot to the north along State Route 32.

- **New York State Thruway Exit 19/Interstate 587 (Kingston)** - This commuter parking lot is located on the traffic circle in Kingston and is not served by any

public transportation providers. There are approximately 35 parking spots available; on the day that field observations were conducted, approximately 34 spots were being utilized, and ten additional cars had parked along the exit driveway from the commuter parking lot. Although this commuter parking lot is heavily utilized, because of the site's geometry (i.e., its location on the traffic circle), opportunities for expansion are limited and may in fact be precluded.

Future Opportunities - As was previously mentioned, the opportunities for expanding this commuter parking lot appear to be limited due to the constraints of the site. However, some modest amenities (e.g., a passenger waiting shelter for people forming carpools) may be appropriate. This commuter parking lot is not served by any of the public transportation providers and it would appear that - due to the proximity of the downtown Kingston Bus Terminal - there is no need for a public transportation provider to also serve this commuter parking lot.

Finally, an "annex" to this commuter parking lot could be constructed in Kingston near the traffic circle. This lot would be located on the west side of Washington Street, near the tourism information "caboose". However, it should be noted that this location is in the Esopus Creek's floodplain and is prone to flooding.

- **Port Ewen** - This site, along U.S. Route 9W near the Riverview Condos, is not a commuter parking lot (i.e., there do not appear to be any parking spots). It appears to be a unused bus turn-around pad with a passenger waiting shelter.
- **Rosendale** - This commuter parking lot, located along State Route 32 near the Rosendale Recreation Center, is served by UCAT and Adirondack/Pine Hill Trailways. This barely paved lot is very substandard in terms of its design and amenities; there are also some issues regarding the ownership of the parcel. This commuter parking lot was developed informally and, over the years, its use has grown to meet demand. On the day that field observations were conducted, approximately all 14 spots were being utilized.

Future Opportunities - A new, relocated commuter parking lot is planned for a site opposite the Rosendale Recreation Center along State Route 32, on the site of an existing junkyard. The Ulster County Department of Highways and Bridges has prepared a plan for a commuter parking lot with approximately 60 parking spots, a 1,000 square foot passenger waiting building with public restrooms, and a one-way loop driveway through the parking lot. The plan has been presented to Adirondack/Pine Hill Trailways for their comments.

This is a worthwhile project and should proceed to implementation. At the present time, traffic and other issues are under discussion. The ticket agent for Rosendale is located at Rosendale Hardware, which is north of the proposed commuter parking lot. This would suggest the need for adequate sidewalk

connections between the hardware store and the planned commuter parking lot.

- **New York State Thruway Exit 18 (New Paltz)** - This commuter parking lot, served by Adirondack/Pine Hill Trailways, closely meets reasonable standards and is very well utilized. On the day that field observations were conducted, approximately all 80 spots were being utilized. The design of the facility is very well laid out.

Future Opportunities - It is possible that this lot can be expanded by 40 to 50 more parking spaces either by building along the area near State Route 299 or by building in the existing paved area located south of the current park-ride lot. This expansion appears to be needed because of the high utilization of this commuter parking lot. Some additional amenities may also be provided as part of the commuter parking lot expansion.

An additional parcel is located north of State Route 299 and is owned by the New York State Thruway Authority. This parcel could be utilized as an “annex” for a future expansion of the commuter parking lot; however, its use would likely be restricted to carpool staging. The use of this parcel as a park-ride lot for public transportation would be difficult because it would either require a pedestrian crossing of a relatively busy portion of State Route 299 so passengers could reach the bus waiting shelters or it would require that buses add time to their trips by making a second stop at the New Paltz interchange.

Finally, the New Paltz commuter parking lot could be utilized on weekends to help reduce traffic congestion within the village (i.e., provided the UCAT New Paltz Shuttle were to operate on weekends and serve this facility) and to generally support large events in New Paltz such as festivals.

- **Lloyd** - This commuter parking lot, located along U.S. Route 9W at State Route 299, is served by Adirondack/Pine Hill Trailways. This lot also meets the proposed design standards; however, only about one dozen of the approximately 80 to 100 parking spaces were utilized. However, this represents a level of utilization similar to the other commuter parking lots in Ulster County. It would appear that the location of this commuter parking lot contributes to its relatively low utilization; the location may not be attractive to commuters that ride the bus or carpool. In fact, this commuter parking lot was so empty that it was being utilized to trans-ship goods between tractor-trailer trucks and local delivery vans. Nonetheless, Mulligan Bus Lines is preparing to realign the route its service between New Paltz and Poughkeepsie utilizes. Instead of operating through the historical core of Highland, Mulligan’s buses will directly serve the Lloyd commuter parking lot.

There are several possible opportunities for future commuter parking lots throughout

Ulster County. These are as follows:

- **Ellenville** - Some type of commuter parking arrangement could be developed for the parking lot behind Dollar World, where the Coach USA - ShortLine station agent was previously located. Alternatively, some type of commuter parking could be incorporated into the design for a new bus terminal facility currently proposed for Ellenville.
- **Woodstock** - There are no commuter parking lots in downtown Woodstock, and the opportunities for a new site appear to be limited. However, there are some possibilities for commuter parking lots in Woodstock. The first is to utilize the municipal overflow lot behind the Woodstock Green on County Route 33. People would still have to walk south to the bus stop on State Route 212, perhaps requiring the widening of some sidewalks. Alternatively, buses could directly serve the commuter parking lot; however, this could require the widening of the road itself and additional scheduled running time for the buses, which is not viewed as desirable.

Other sites that were suggested for a Woodstock commuter parking lot are the parking lot near the intersection of State Routes 212 and 375 (i.e., serving the Indonesian Interiors store) or the parking lot of the Woodstock Playhouse. However, there is some concern as to whether these parking lots have enough capacity to provide sufficient commuter parking. An additional concern is that pedestrians would need to cross a relatively busy portion of State Route 212 to board or alight from any eastbound buses (i.e., assuming the buses do not pull into the commuter parking lot). The use of these sites would require negotiation for use of the site with the property owner; in addition, the potential exists to have one of the retail establishments become a commissioned ticket agent.

Any site used by commuters would need to have appropriate amenities and trailblazer signs. As was previously mentioned, a concern with the municipal overflow lot on County Route 33 is that patrons would have to walk a few hundred feet to reach the bus stop since it would not be likely that buses would divert to this location. Nonetheless, the current existence of a ticket agency near this parking lot would suggest it as a viable option. One possible modification is to make arrangements for limited overnight parking by public transportation patrons.

- **Saugerties** - There are two possible sites for a commuter parking lot in the vicinity of Saugerties. The first is the parking lot located at the Hess gas station located at the intersection of State Routes 32 and 212. This site would potentially also serve public transportation providers and not solely function as a carpool staging commuter parking lot. An additional positive factor is that this intersection is controlled by a traffic signal. The use of this site would require

negotiation for use of the site with the property owner; in addition, the potential exists to have the retail establishment become a commissioned ticket agent.

Another site is the parking lot at the Grand Union/CVS shopping center, located west of the railroad. Although the Grand Union has closed, the use of this site would - similar to the Hess gas station - require negotiation for use of the site with the property owner. In addition, the potential again exists to have the retail establishment become a commissioned ticket agent.

It should also be noted that the Saugerties commuter parking lot could be utilized on weekends to help reduce traffic congestion within the village (i.e., provided that special shuttle buses were to serve this facility) and to generally support large events in Saugerties such as festivals.

Finally, there are no commuter parking lots in downtown Saugerties, and the opportunities for one appear to be limited. Two somewhat limited possibilities are to utilize the parking lot behind the Village Police station in some manner or a portion of the parking lot at the Price Chopper supermarket along State Route 212.

- **Wallkill** - As was previously mentioned, a possibility for some type of terminal and/or commuter parking facility in Wallkill exists near the connection to the existing rail trail; some parking already exists at Garrison Park. This facility could possibly provide some type of connection with transit services in neighboring Orange County.
- **West Hurley** - A new commuter parking lot is being considered at the northeast corner of the intersection of State Routes 28 and 375. This lot would be served by UCAT and Adirondack/Pine Hill Trailways and would also provide recreational access to the bike/rail trail along State Route 28.
- **Marlboro/Milton** - The U.S. Route 9W corridor in the Marlboro/Milton area is congested, and traffic is expected to worsen over the next few years. At the present time, a complete congestion management plan is being prepared for this area. This area is conveniently located near both the Mid-Hudson Bridge (i.e., U.S. Route 44/State Route 55) and the Newburgh-Beacon Bridge (i.e., Interstate 84/State Route 52).

The potential exists for Ulster County commuters to utilize a commuter parking lot in this area to access the MTA Metro-North Railroad's Beacon station either via carpool staging or a connecting transit service. A facility in this area could also possibly provide some type of connection with transit services in neighboring

Orange County.

There are two possible sites in the Marlboro/Milton area for a commuter parking lot. The first is a site one block west of U.S. Route 9W on the Milton Turnpike (i.e., County Route 10). Patrons of public transportation service would walk between this lot and U.S. Route 9W to board and alight buses; this lot could also be utilized for carpool staging. This location is attractive because the intersection with U.S. Route 9W has a traffic signal.

Another commuter parking lot could be located at the Bridgeview Plaza shopping center, located on U.S. Route 9W. As with the potential use of any retail property's parking lot for commuter parking, the use of this site would require negotiation for use of the parking lot with the property owner. In addition, the potential exists to have the retail establishment become a commissioned ticket agent.

This section of the report provided an overview of the existing terminal facilities and commuter parking lots, as well as opportunities for expansion and potential future locations for similar transportation facilities. It is intended that this section of the report will encourage further discussion of transit facility needs, which will ultimately lead to a recommended plan.

Costs - The facilities described above consist of terminals and parking lots. The expenditures for these facilities would include construction costs, equipment purchases, engineering/design fees and contingencies. In addition, costs would be incurred for land acquisition, site preparation and design features associated with a particular project. These are very site specific items and a cost estimate would mandate more detailed engineering analysis and design. Nonetheless, to indicate the relative magnitude of necessary expenditures, representative costs have been determined.

The costs of the terminals will be influenced by the final design features and various environmental steps to prepare the site. The most major project is a terminal in Kingston which would serve different operators and modes. Based on experience in other facilities, capital costs (excluding land) could be approximately 6.5 million dollars. The lack of adequate space would preclude an entirely new facility in New Paltz with the more modest changes expected to cost \$350,000. The City of Ellenville has submitted a proposal for a facility and their cost estimate was about \$800,000. Woodstock is another community where a new terminal is not proposed, but improvements consist of greater amenities and identification. While the specific design features would greatly influence the expenditures, it would be reasonable to expect cost that approximate \$200,000.

The parking lots are similar to the terminals in that expenditures would vary by site specific conditions and design features. For example, drainage would greatly influence costs and could result in vastly different expenditures between two similar types of projects. In the current analysis, it is anticipated that unit costs would range from \$1,500 to \$2,000 per parking space.

In turn, this would result in costs for a 50-space lot of between \$75,000 and \$100,000. An allowance of about \$50,000 for various amenities at each facility would not be unreasonable.

Fares

Each transit operator establishes its own policies with respect to fares, which are oriented to its specific markets. Typically, fares can be examined in terms of five criteria as follows:

- **Equity** in that different users are treated fairly with respect to the nature of the transit trip and fare charged.
- **Administration** which indicates that fares are to be collected, recorded and accounted for in a relatively straightforward manner.
- **Comprehension** that assures that the fare structure is simple and that riders can readily understand the amount charged.
- **Revenue**, combined with government subsidies, which should be adequate to cover the costs of operating service.
- **Social** policies that address values that government officials place on worthwhile features (e.g., reduced fares for senior citizens) and which are sometimes mandated.

In the current analysis, it is assumed that the review of current fare structures and policies are established by each operator based on these considerations, although the importance assigned to each may vary among the different carriers. Moreover, these are policy considerations which are left to the discretion of each carrier (i.e., their management or governing board). The current study reviews fares from a systemwide approach and what can be done to improve the situation for current riders and attract new patrons.

Consistent with the strategic nature of the study, four specific fare proposals are suggested for consideration. Each of these is summarized below:

Prepayment Media - Some systems offer riders an opportunity to pay their fare by prepayment media, such as monthly passes or multiple ride tickets. This affords riders a convenience, since they are not required to pay their fare on boarding the bus or purchase an individual ticket. In some cases, these fare programs also provide a discount to commuters in comparison to individual fares. The commuter/intercity carriers (e.g., Adirondack/Pine Hill Trailways, etc.) offer patrons the opportunity to purchase multiple-ride tickets and a monthly pass. This concept should be extended to Kingston CitiBus - which already has tickets - and UCAT, as well as the other carriers. Another possibility is semester passes for students at the

State University of New York at New Paltz (SUNY New Paltz) and at the Ulster County Community College (UCCC).

Fare Coordination - Currently, no arrangements or reciprocal agreements exist between the bus operators serving Ulster County. Persons who transfer between operators are forced to pay a second fare to complete their journey. There are no transfer privileges at either a reduced or free fare basis. For example, persons who live in certain portions of Kingston and wish to travel to the Hudson Valley Mall would be forced to pay two fares. They would pay their fare when they board a CitiBus route in their neighborhood in Kingston and a second fare to UCAT when they transferred. They would again be required to pay two fares to complete their return trip later that day. The recommendation would be that operators should negotiate fare agreements to permit a reduced charge for transferring passengers.

Another feature of the fare structure that affects UCAT in Kingston are that their buses operate “closed door” within the municipal boundaries. With this arrangement, persons are not allowed to make trips which start and end in Kingston on UCAT buses. The rationale for such an approach is that it avoids competition between the operators and could reduce farebox revenue for Kingston CitiBus. Since both UCAT and CitiBus are subsidized carriers, the case could be made that the benefits of greater service to Kingston residents offsets the potential diversion of revenue.

Other possibilities for fare coordination would be between UCAT and carriers in Orange County and between Mulligan Bus Lines and operators in Dutchess County.

U-PASS - Transit agencies in communities which have colleges and universities in their transit service area have found this to be an attractive approach to encourage transit use and help underwrite the cost of service. For example, Indiana University and Bloomington Public Transit Corporation have entered into an agreement that allows students to ride any bus route without paying a fare by presenting their student identification card. Indiana University collects a fee from students which is then paid to the transit operator. Similar examples exist in State College (Pennsylvania State University) and Madison (University of Wisconsin), to cite only a few.

In Ulster County, a U-PASS arrangement could be adopted between SUNY New Paltz and UCAT. The current service might not be sufficiently attractive to warrant a U-PASS plan. However, should a frequent shuttle be operated in New Paltz that served SUNY and the core area of New Paltz, this could be a viable option. Further, the U-PASS arrangement could help underwrite the cost of an expanded shuttle service that would greatly increase student mobility. Moreover, this concept could be expanded in New Paltz to include Mulligan Bus Lines with service to Poughkeepsie.

Another possibility for a U-PASS arrangement would be between Ulster County Community College and UCAT. The rationale for such a plan is the existing concentration of service to this major generator and the desire to increase transit ridership.

UniTicket - MTA Metro-North Railroad operates service from Poughkeepsie to Grand Central Terminal in New York City. This agency has entered into an agreement with the Bee Line bus system in Westchester County. Persons who purchase a rail pass can pay an additional charge and are permitted to ride a Bee Line bus at a discounted fare. Metro-North and Bee Line have an agreement to share the UniTicket fare. Similar arrangements exist between the MTA Long Island Rail Road and MTA Long Island Bus in Nassau County. It would appear that such an arrangement could be achieved between Mulligan Bus Lines and Metro-North at Poughkeepsie.

Promotional Fares - Fares could be coordinated with specific marketing campaigns and could include free ride coupons or special discount fares. For example, a potential market identified in Ulster County are high school students for after school travel. Possible actions could include free coupons to introduce students to public transportation. Another possibility would be youth/student reduced fares.

Marketing

The stakeholder interviews indicated that many residents did not know what transit services are available and how to get information on how to use the system. To remedy this situation, this section presents proposals to strengthen the public awareness of public transportation in Ulster County and encourage increased ridership. A corollary benefit is that it also builds support for the transit system and the public funds that close the gap between costs and patron fares. Various suggestions are made that directly apply to the public agencies (i.e., UCAT and Kingston CitiBus), but many of the proposals could apply to all carriers. The suggested marketing initiatives are highlighted and summarized below.

Marketing Plan - A number of activities can be suggested and justified as transit marketing activities. With limitations on staff time and financial resources, it is necessary to have a defined program with carefully selected and integrated actions. To accomplish this, the marketing plan should consist of three distinct elements as follows:

- **Defining Objectives** - The marketing efforts need to be focused and lead to selection of specific actions that support a desired outcome. In view of the current low awareness of the transit system and how to use it, there is a need for three primary objectives. The first is to increase public awareness, improve the system image and make the case for a vital public service. Second, the system needs to provide information on itself that is user-friendly to both existing and prospective patrons. Finally, the operators need to promote service to retain current customers and attract new riders among target groups (e.g., teenagers).
- **Project Selection/Design** - There must be strong links between the proposed projects and the objectives cited above. They need to be clearly articulated in writing to facilitate more detailed project design. It should include the

justification for actions, the necessary resources and a schedule.

- **Evaluation** - As marketing projects are defined, they should include activities to measure their success. In view of limited resources, the evaluation process should be relatively simple and able to be accomplished quickly. This could mean various surveys to gauge whether the promotion had the intended effect.

An essential element of any marketing program is that sufficient resources be directed to this activity. While there are no absolute rules as to proper amounts, marketing expenditures should typically account for three to five percent of operating costs. For example, this would suggest a marketing budget approximately \$60,000 to \$85,000 for UCAT.

Specific Elements - Much of the information currently provided on services is either not available or is not user-friendly. It is difficult to plan a trip, some of which reflects the nature of the service as well as the materials provided the public. To address this situation, the following multi-tiered actions are suggested:

- **Route Timetables** - Each route should have a separate timetable that provides a drawing of the areas and major generators served, along with the streets traversed and a schedule presenting times at key locations and transfer opportunities. One specific recommendation is that Mulligan Bus Lines' timetable should show the times of connecting MTA Metro-North Railroad trains at Poughkeepsie and their arrival and departure times at Grand Central Terminal.
- **System Map** - A map should show the entire bus network in Ulster County for all carriers. It can either be in a schematic format or a scale map, but clearly list all streets used and possibly an enlargement in the more densely developed areas. Telephone information numbers and website addresses should also be provided.
- **Ride Guide** - Some systems have found it helpful to print a single document which includes schedule information for all routes. It would provide information on fares, how to ride the transit system, website information and telephone information numbers.
- **Single Source** - It would be preferable if inquiries were directed to a single source for information on the Ulster County public transportation system. Ideally, this could include a source of information for carpooling. Failing to create a single information source, each operator should be aware of services available by connecting carriers.
- **Bus Stop Signs** - Another means to increase system awareness and help perspective riders use the transit system is to erect bus stop signs. A design guide would need to be established regarding placement and the message content, particularly where a stop has more than one operator. Typically, bus stop signs

include route designation, system names, logos, telephone information numbers and web page addresses.

The route timetables, system maps and ride guides should be prepared at two levels. The first would be for the routes operated for each carrier and the second would be for the entire system. To the extent possible, the public information materials should be in a consistent format, although it is recognized that there are differences between the types of service provided and the trip market served.

Priorities

The proposals described previously present a comprehensive and ambitious program of public transportation improvements. It is recognized that there are not sufficient resources to implement all of the recommendations in a single year. To address this situation, each of the proposals have been assigned a priority based on a qualitative scale of 1 (highest) to 5 (lowest) to distinguish the relative priority for each proposal. It is anticipated that those projects that have the highest priority would be initiated during the next year or two with other projects having a longer horizon time. Further, the priorities may be revised and updated since the transit setting may change during the few years. Nonetheless, the priorities below provide guidance in the relative importance of the study proposals.

Service Proposals

Proposal	Priority
<i>Kingston CitiBus</i>	
Transit Hub and Pulse Point	1
Route Simplification	1
Reduce Use of “On Request”	2
<i>Ulster County Area Transit</i>	
Improved Frequency and Span of Service	2
Kingston Transit Hub and Pulse Point	1
Eliminate Use of “On Request” at Major Stops	2
Eliminate “Closed Door” Service in Kingston	2
Intercounty: Newburgh Expanded Service	3
Intercounty: Kingston-Rhinecliff	5

Intercounty: New Paltz-Poughkeepsie Expanded Service (Mulligan Bus Lines)	2
Upgrade New Paltz Shuttle	1
Provide Special Services	4

Facility Proposals

Proposal	Priority
<i>Terminals</i>	
New Kingston Facility	1
Upgrade Existing New Paltz Facility	2
New Ellenville Bus Facility	3
Saugerties (Price Chopper)	5
Woodstock Green	3
New Walkkill Facility	5
<i>Commuter Parking Lots (Existing)</i>	
I-87 Exit 20 (Saugerties)	1
State Routes 32 and 199	1
I-87 Exit 19 (Kingston “Annex”)	3
Port Ewen	No Action
Rosendale	1
I-87 Exit 18 (New Paltz)	2
Lloyd	No Action
<i>Commuter Parking Lots (New)</i>	
Ellenville	3
Woodstock Municipal	2
Woodstock at State Routes 212 and 375	5
Saugerties (Hess)	5
Saugerties (Grand Union/CVS)	2
Walkill	4
West Hurley	3
Marlboro/Milton (Milton Turnpike)	5
Marlboro/Milton (Bridgeview Plaza)	3

Other Proposals

Proposal	Priority
<i>Fare</i>	
Prepayment Media	2
CitiBus/UCAT Fare Coordination	1
U-PASS	3
Uni-Ticket	3
Promotional Fares	1
<i>Marketing</i>	
Marketing Plan	1
User Friendly Timetables	1
System Map	1
Ride Guide	3
Single Source	2
Bus Stop Signs	1
<i>Miscellaneous</i>	
Transportation Demand Management	2
Land Use and Design	1

Table 1
Description of Service - Transit Services

Route	Between	And
Kingston CitiBus		
Route A	Kingston Plaza and Westbrook Lane	Delaware Avenue and North Street
Route B	Hurley Avenue	Business Resource Center
Route C	Board of Cooperative Educational Services	Amy Kay Boulevard and N.Y. Route 32
Kingston Historic Trolley <i>(June-October Only)</i>	Trolley Museum	Ramada Inn
Ulster County Area Transit		
<i>Regular Routes</i>		
Kingston-Saugerties	Kingston Plaza	Saugerties/Woodstock
Kingston-New Paltz	Kingston Plaza	New Paltz/Ulster County Community College
Kingston-Pine Hill	Kingston Plaza	Phoenicia/Shandaken/Belleayre
Kingston-Ellenville	Kingston Plaza	Ellenville/Spring Glen
Kingston-Wallkill	Kingston Plaza	Wallkill/Plattekill
Kingston-Gardiner	Kingston Plaza	Gardiner/Plattekill/Highland/Marlboro
Woodstock-New Paltz	Woodstock	New Paltz
Newburgh Service	Kingston/New Paltz	Newburgh
New Paltz Shuttle	loop route in New Paltz area	
<i>Rural Routes (Demand Responsive Service)</i>		
New Paltz Service	New Paltz	Clintondale, Gardiner, Highland, Marlboro or the New Paltz area
Kingston Service	Kingston	Clintondale, Connelly, East Kingston, Ellenville, Gardiner, Highland, Marlboro, New Paltz, Olivebridge, Pine Bush, Port Ewen, Rifton, Rosendale, Saugerties, Sawkill, Seven Greens, Sunset Garden, Tillson, Ulster Park, Wallkill, West Park or Woodstock
Mulligan Bus Lines		
Poughkeepsie	New Paltz	Poughkeepsie Railroad Station
Laidlaw Transit		
Kingston-Saugerties	Kingston	Saugerties via N.Y. 32

Table 2
Description of Service - Commuter/Intercity Services

Route	Between	And
Adirondack/Pine Hill Trailways		
New York City-Utica	New York City, New Paltz and Kingston via N.Y. 32 corridor	Woodstock and Utica or Oneonta via N.Y. 28 corridor
New York City-Albany	Albany, Saugerties and Kingston	New York City via New Paltz and N.Y. 32 corridor
upstate New York-Long Island	Albany, Oneonta, SUNY Albany	Babylon/Freeport (Long Island) via Kingston, New Paltz, SUNY New Paltz and N.Y. 32 corridor
SUNY Albany-Long Island Expressway	SUNY Albany and SUNY New Paltz	Long Island Expressway Park-and-Ride Lots
Newburgh-Albany	Newburgh and Poughkeepsie via U.S. 9W corridor	Kingston or Albany
Kingston-Albany	Kingston	Albany via U.S. 9W corridor
Coach USA - Short Line		
U.S. 209 Service	Kerhonkson	New York City via Ellenville
Monticello Service	Kingston	Monticello via Ellenville and upstate points
Sharmash Bus - Monroe Bus Corporation		
Catskill Express	Kerhonkson	New York City via Naponoch, Ulster Heights, and Ellenville

Table 3
Frequency of Service - Transit Services
(Headway in Minutes)

Route	Weekdays				Saturday	Sunday
	AM Peak	Midday	PM Peak	Evening		
Kingston CitiBus						
Route A	60	60	60	--	60	--
Route B	60	60	60	--	60	--
Route C	60	60	60	--	60	--
Kingston Historic Trolley <i>(June-October Only)</i>	--	60	60	--	60	60
Ulster County Area Transit						
<i>Regular Routes (Exact Headway May Vary Depending Upon Direction of Travel)</i>						
Kingston-Saugerties	40	60	40	120	105	--
Kingston-New Paltz	30	95	30	1 trip	--	--
Kingston-Pine Hill	2 trips	130	1 trip	1 trip	--	--
Kingston-Ellenville	83	158	135	2 trips	--	--
Kingston-Wallkill	1 trip	--	1 trip	--	--	--
Kingston-Gardiner	2 trips	--	2 trips	--	--	--
Woodstock-New Paltz	--	--	--	--	2 trips	--
Newburgh Service	2 trips	1 trip	1 trip	1 trip	--	--
New Paltz Shuttle	1 trip	101	--	--	--	--
<i>Rural Routes</i>						
New Paltz Service	demand responsive service				--	--
Kingston Service	demand responsive service				--	--
Mulligan Bus Lines						
Poughkeepsie	70	105	90	--	85	--
Laidlaw Transit						
Kingston-Saugerties	1 trip	--	1 trip	--	--	--

Table 4
Frequency of Service - Commuter/Intercity Services
(Approximate Number of Round Trips)

Route	Weekdays	Saturday	Sunday
Adirondack/Pine Hill Trailways			
New York City-Utica	9 trips	8 trips	8 trips
New York City-Albany	10 trips	6 trips	7 trips
upstate New York-Long Island <i>(service varies depending upon the academic calendar)</i>	4 trips	3 trips	3 trips
SUNY Albany-Long Island Expressway <i>(service operates on specific dates only)</i>	2 trips	2 trips	2 trips
Newburgh-Albany	3 trips	2 trips	3 trips
Kingston-Albany	1 trip	--	--
Coach USA - Short Line			
U.S. 209 Service	4 trips	4 trips	4 trips
Monticello Service	2 trips	2 trips	2 trips
Sharmash Bus - Monroe Bus Corporation			
Catskill Express	3 trips	-	4 trips
Catskill Express <i>(Friday Only)</i>	2 trips		

Table 5
Span of Service - Transit Services

Route	Weekdays		Saturday		Sunday	
	Begin	End	Begin	End	Begin	End
Kingston CitiBus						
Route A	6:30AM	6:30PM	9:30AM	5:30PM	--	--
Route B	6:30AM	6:30PM	9:30AM	5:30PM	--	--
Route C	6:35AM	6:30PM	9:35AM	5:30PM	--	--
Kingston Historic Trolley <i>(June-October Only)</i>	12:00PM	5:00PM	12:00PM	5:00PM	12:00PM	5:00PM
Ulster County Area Transit						
<i>Regular Routes</i>						
Kingston-Saugerties	5:25AM	10:30PM	8:00AM	6:00PM	--	--
Kingston-New Paltz	6:35AM	9:10PM	--	--	--	--
Kingston-Pine Hill	6:55AM	7:45PM	--	--	--	--
Kingston-Ellenville	5:30AM	10:35PM	--	--	--	--
Kingston-Wallkill	5:55AM & 4:30PM	7:20AM & 6:50PM	--	--	--	--
Kingston-Gardiner	6:15AM & 2:20PM	10:00AM & 5:00PM	--	--	--	--
Woodstock-New Paltz	--	--	8:00AM	4:45PM	--	--
Newburgh Service	5:10AM	9:00PM	--	--	--	--
New Paltz Shuttle	8:52AM	3:30PM	--	--	--	--
<i>Rural Routes (Span of Service May Vary Depending On Communities Being Served and the Specific Weekday)</i>						
New Paltz Service	9:30AM	2:30PM	--	--	--	--
Kingston Service	8:45AM	3:00PM	--	--	--	--
Mulligan Bus Lines						
Poughkeepsie	6:30AM	6:45PM	8:00AM	6:05PM	--	--
Laidlaw Transit						
Kingston-Saugerties	7:00AM & 4:00PM	8:30AM & 4:45PM	--	--	--	--

Table 6
Span of Service - Commuter/Intercity Services

Route	Weekdays		Saturday		Sunday	
	Begin	End	Begin	End	Begin	End
Adirondack/Pine Hill Trailways						
New York City-Utica	5:50AM	11:00PM	5:50AM	10:35PM	6:30AM	11:00PM
New York City-Albany	5:45AM	2:35AM	6:00AM	2:35AM	6:00AM	2:35AM
upstate New York-Long Island <i>(service varies depending upon the academic calendar)</i>	6:20AM	11:55PM	6:20AM	11:55PM	6:20AM	11:55PM
SUNY Albany-Long Island Expressway <i>(service operates on specific dates only)</i>	12:45PM	9:30PM	12:45PM	9:30PM	12:45PM	9:30PM
Newburgh-Albany	10:50AM	8:45PM	10:50AM	7:05PM	10:50AM	8:45PM
Kingston-Albany	6:07AM & 5:00PM	7:32AM & 6:25PM	--	--	--	--
Coach USA - Short Line						
U.S. 209 Service	7:44AM	11:37PM	7:44AM	11:37PM	7:44AM	11:37PM
Monticello Service	7:00AM	9:05PM	7:00AM	9:05PM	7:00AM	9:05PM
Sharmash Bus - Monroe Bus Corporation						
Catskill Express	9:00AM <i>(8:00AM on Friday)</i>	8:00PM <i>(3:00PM on Friday)</i>	--	--	8:00AM	8:20PM

**Table 7
Daily Ridership by Route**

Route	Ridership	Percent
Ulster County Area Transit		
Weekday		
Kingston-Saugerties	128	23.4
Kingston-New Paltz	164	30.0
Kingston-Pine Hill	61	11.2
Kingston-Ellenville	101	18.5
Kingston-Wallkill	2	0.4
Kingston-Gardiner	24	4.4
Newburgh Service	50	9.2
New Paltz Shuttle	16	2.9
Total	546	100.0
Saturday		
Kingston-Saugerties	71	87.7
Woodstock-New Paltz	10	12.3
Total	81	100.0
Kingston CitiBus		
Weekday		
Route A	165	37.0
Route B	153	34.3
Route C	128	28.7
Total	446	100.0
Saturday		
Route A	127	61.1
Route B	49	23.6
Route C	32	15.3
Total	208	100.0

Table 8
Five Year Operating and Financial Trends - Ulster County Area Transit

	1999	2000	2001	2002	2003
Operating Statistics					
Vehicle Hours	21,000	22,800	21,900	24,900	30,200
Vehicle Miles	383,200	388,100	425,100	485,500	585,594
Operating Speed	18.27	16.99	19.62	19.53	19.42
Ridership and Productivity					
Passengers	123,100	121,800	127,700	135,300	151,600
Passengers Per Vehicle Hour	5.87	5.33	5.90	5.40	5.03
Passengers Per Vehicle Mile	0.32	0.31	0.30	0.28	0.26
Financial Results - Aggregate (\$)					
Cost	745,500	923,500	1,065,800	1,295,900	1,688,200
Revenue	177,100	177,500	181,800	194,300	213,300
Deficit	568,400	746,000	884,000	1,101,600	1,474,900
Farebox Recovery (Percent)	23.76	19.22	17.06	14.99	12.64
Financial Results - Per Vehicle Hour (\$)					
Cost	35.55	40.42	49.19	52.12	55.99
Revenue	8.45	7.77	8.39	7.81	7.07
Deficit	27.10	32.65	40.80	44.31	48.92
Financial Results - Per Vehicle Mile (\$)					
Cost	1.95	2.38	2.51	2.67	2.88
Revenue	0.46	0.46	0.43	0.40	0.36
Deficit	1.49	1.92	2.08	2.27	2.52
Financial Results - Per Passenger (\$)					
Cost	6.05	7.58	8.34	9.58	11.13
Revenue	1.44	1.46	1.42	1.44	1.41
Deficit	4.61	6.12	6.92	8.14	9.72

Table 9
Five Year Operating and Financial Trends - Kingston CitiBus

	1999	2000	2001	2002	2003
Operating Statistics					
Vehicle Hours	14,500	14,500	14,500	14,500	14,500
Vehicle Miles	146,500	140,800	137,000	151,400	143,700
Operating Speed	10.09	9.69	9.43	10.42	9.89
Ridership and Productivity					
Passengers	129,300	124,900	126,200	136,600	123,100
Passengers Per Vehicle Hour	8.90	8.59	8.68	9.40	8.47
Passengers Per Vehicle Mile	0.88	0.89	0.92	0.96	0.86
Financial Results - Aggregate (\$)					
Cost	506,400	546,900	600,400	547,500	611,000
Revenue	101,000	101,500	101,600	99,600	96,200
Deficit	405,400	445,400	498,800	447,900	514,800
Farebox Recovery (Percent)	19.94	18.56	16.92	18.19	15.74
Financial Results - Per Vehicle Hour (\$)					
Cost	34.86	37.64	41.33	37.69	42.05
Revenue	6.95	6.99	6.99	6.86	6.62
Deficit	27.91	30.66	34.34	30.83	35.43
Financial Results - Per Vehicle Mile (\$)					
Cost	3.46	3.88	4.38	3.62	4.25
Revenue	0.69	0.72	0.74	0.66	0.67
Deficit	2.77	3.16	3.64	2.96	3.58
Financial Results - Per Passenger (\$)					
Cost	3.92	4.38	4.76	4.01	4.96
Revenue	0.78	0.81	0.81	0.73	0.78
Deficit	3.14	3.57	3.95	3.28	4.18

Table 10
Five Year Operating Trends - Other Operators

	1999	2000	2001	2002	2003
Adirondack Trailways					
Miles (000's)	1,517	1,507	1,539	1,389	1,311
Passengers (000's)	600	567	522	489	382
Passengers Per Mile	0.40	0.38	0.34	0.35	0.29
Mulligan Bus Lines (Formerly Arrow Bus Lines)					
Miles (000's)	61	58	62	58	57
Passengers (000's)	25	23	24	27	26
Passengers Per Mile	0.41	0.40	0.40	0.46	0.46
Laidlaw Transit					
Miles (000's)	30	30	30	30	30
Passengers (000's)	5	4	4	5	4
Passengers Per Mile	0.18	0.14	0.15	0.17	0.13
Lester Lines (Service Now Operated By UCAT)					
Miles (000's)	35	35	35	35	35
Passengers (000's)	19	18	18	16	14
Passengers Per Mile	0.55	0.52	0.52	0.46	0.42
Pine Hill-Kingston Trailways					
Miles (000's)	357	360	367	361	360
Passengers (000's)	105	129	101	100	97
Passengers Per Mile	0.29	0.36	0.27	0.28	0.27
Coach USA - Short Line					
Miles (000's)	5,987	6,229	6,337	6,197	6,153
Passengers (000's)	1,818	1,864	1,808	1,804	1,884
Passengers Per Mile	0.30	0.30	0.29	0.29	0.31

Table 11
Journey-To-Work Information

County	Ulster Residents By Work Place Listed		Ulster Jobs By Residence Listed		Combined Movements		Directional Balance	
	Trips	Percent	Trips	Percent	Trips	Percent	Ratio	Net Flow
<i>Intracounty</i>								
Ulster, NY	54,375	66.9	54,375	84.4	54,375	59.5	1.00	0
<i>Intercounty</i>								
Bergen, NJ	270	0.3	35	0.1	305	0.3	7.71	235
Albany, NY	505	0.6	305	0.5	810	0.9	1.66	200
Columbia, NY	395	0.5	435	0.7	830	0.9	0.91	-40
Delaware, NY	120	0.1	440	0.7	560	0.6	0.27	-320
Dutchess, NY	10,685	13.1	3,430	5.3	14,115	15.4	3.12	7,255
Greene, NY	575	0.7	1,085	1.7	1,660	1.8	0.53	-510
Brooklyn, NYC	200	0.2	65	0.1	265	0.3	3.08	135
Manhattan, NYC	1,565	1.9	90	0.1	1,655	1.8	17.39	1,475
Orange, NY	8,675	10.7	1,995	3.1	10,670	11.7	4.35	6,680
Putnam, NY	215	0.3	70	0.1	285	0.3	3.07	145
Rockland, NY	580	0.7	90	0.1	670	0.7	6.44	490
Sullivan, NY	730	0.9	1,110	1.7	1,840	2.0	0.66	-380
Westchester, NY	1,155	1.4	235	0.4	1,390	1.5	4.91	920
Other	1,265	1.6	680	1.1	1,945	2.1	1.86	585
<i>Subtotal</i>	26,935	33.1	10,065	15.6	37,000	40.5	2.68	16,870
Total	81,310	100.0	64,440	100.0	91,375	100.0	1.26	16,870

Table 12
Major Trip Interchanges With Dutchess County or Orange County
(Interchanges With 250 Or More Trips)

Dutchess County Residence Locations	Ulster County Work Destinations	Trip Count
Red Hook Town	Kingston City	282
Ulster County Residence Locations	Dutchess County Work Destinations	Trip Count
Esopus Town	Poughkeepsie Town	473
Kingston City	Poughkeepsie Town	313
Lloyd Town	Poughkeepsie City	600
Lloyd Town	Poughkeepsie Town	828
Marlboro Town	Poughkeepsie City	279
Marlboro Town	Poughkeepsie Town	353
New Paltz Town	Poughkeepsie City	262
New Paltz Town	Poughkeepsie Town	405
Plattekill Town	Poughkeepsie Town	372
Saugerties Town	Poughkeepsie Town	338
Ulster Town	Poughkeepsie Town	296
Orange County Residence Locations	Ulster County Work Destinations	Trip Count
<i>no interchanges between municipalities exceeded 250 trips</i>		
Ulster County Residence Locations	Orange County Work Destinations	Trip Count
Marlboro Town	Newburgh Town	382
Plattekill Town	Newburgh Town	342
Plattekill Town	Newburgh City	277
Shawangunk Town	Crawford Town	473
Shawangunk Town	Montgomery Town	440
Shawangunk Town	Newburgh Town	389
Shawangunk Town	Wallkill Town	366

Table 13
Stakeholder Interview Participants

Name	Agency/Organization
Mark Boungard	Trailways
Ed Brown	Ulster County Mental Health Department
Jerry Callahan	Ulster County BOCES
Kevin Castle	Wallkill Central School District
Mircea Catona	Ulster County Department of Public Works
Roger Cooney	Full Moon Resort
Glenn Decker	Ulster County Department of Social Services
Mary Jo DeForest	Ulster County Office for the Aging
Joseph Devine	Citizen
Cathy Ellis	Ulster County Tourism
Christine Falzone	Coach USA - Short Line
Steve Finkle	City of Kingston
Glenn Gidaly	Citizen
Gilbert Hales	Citizen
Deb Harris	Kingston Holiday Inn
Jack Hohman	New York State Thruway Authority
Patty Jacobsen	Ulster County Tourism
Donald Katt	Ulster County Community College
Jerry Keller	City of Kingston Police Department
Stan Kern	Town of Kingston
Tony Lanza	Belleayre Mountain Ski Resort
Albert Meyer	Ulster County Legislator
Paul Mountain	Resource Center for Accessible Living
Gary Mulligan	Mulligan Bus Lines/Arthur F. Mulligan
Robert Nuzzo	New York State Police
Nancy Pavlak	New York State Police
Paul Provost	Trailways
Myles Putnam	Citizen
Jill Ross-Schmeltz	New York State Thruway Authority
Cynthia Ruiz	Ulster County Area Transit
Gianna Russo	Ulster County BOCES
Rick Salzmann	City of Kingston Fire Department

Table 13 (Continued)
Stakeholder Interview Participants

Name	Agency/Organization
Charles Schaller	Ulster County Traffic Safety
Ernie Schneider	Metro-North Railroad
Mark Sheedy	New York State Bridge Authority
Mark Sherman	Citizen
Art Synder	Ulster County Emergency Management
Ronald Suits	New Paltz Central School District
John Valk	Town of Shawangunk
Jeremy Wilber	Town of Woodstock
Dennis Young	Ulster County Sheriff's Office

Figure 1
Study Area

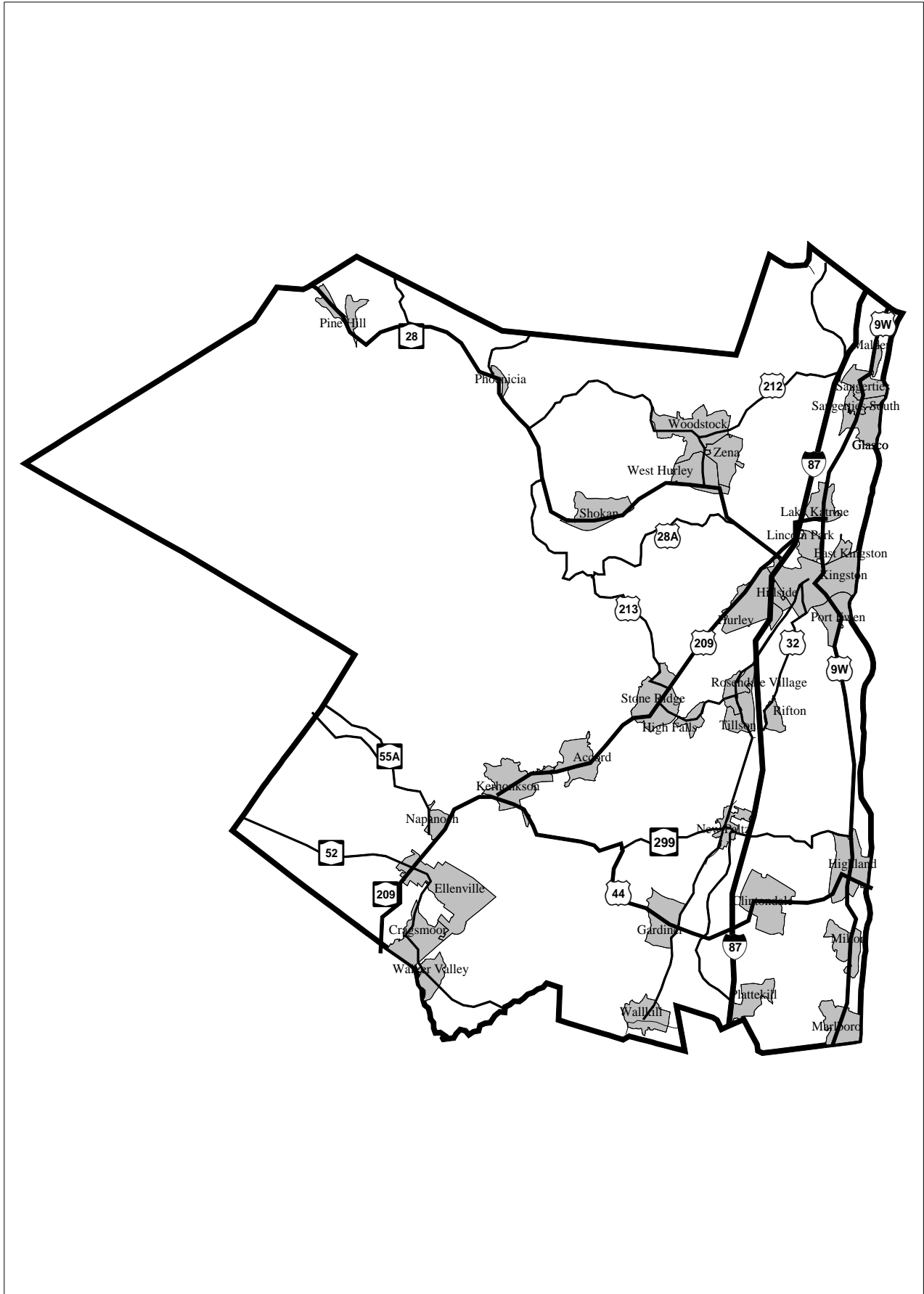


Figure 2
UCAT Ridership By Day

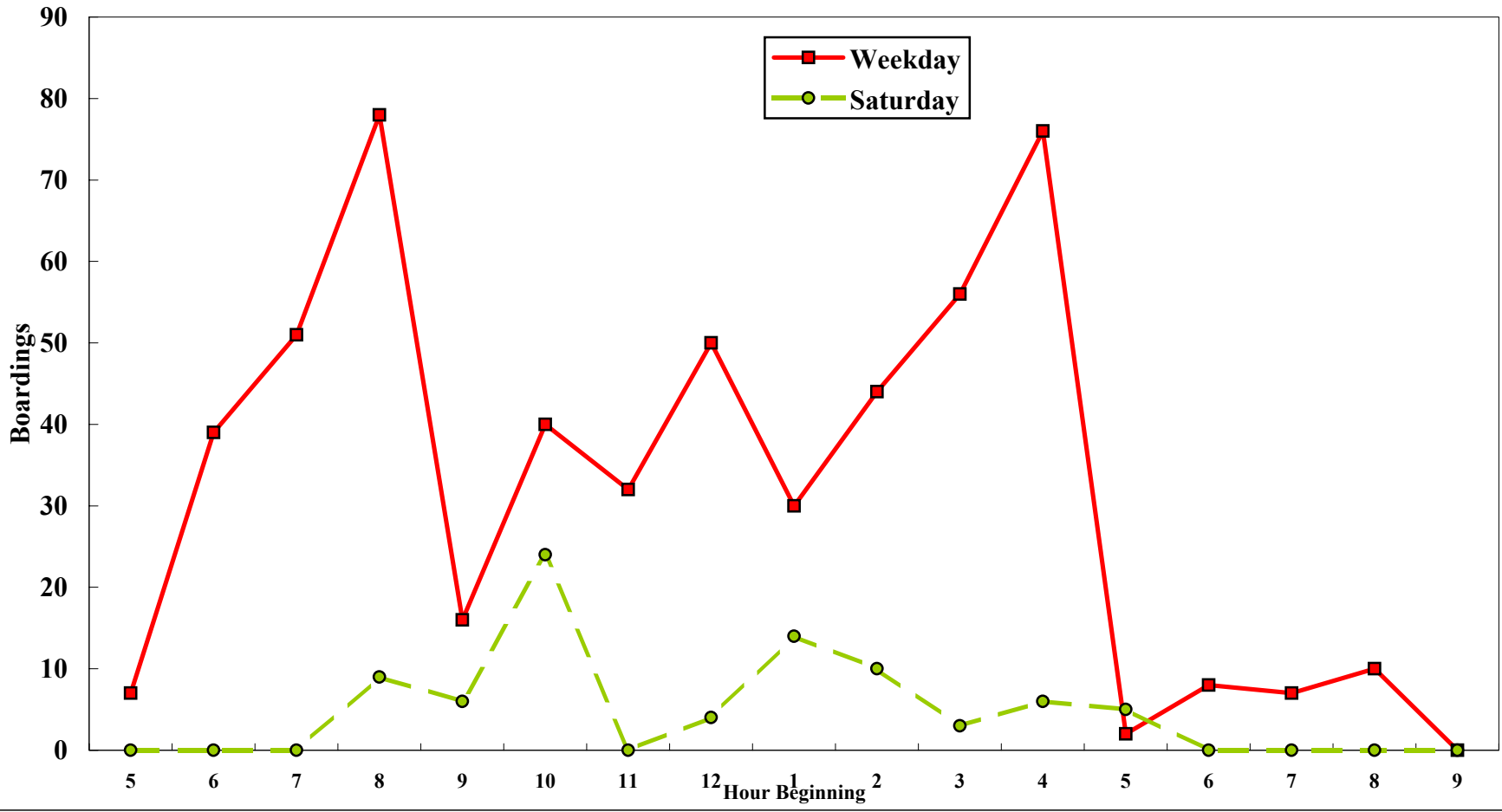


Figure 5
CitiBus Ridership By Route And Day

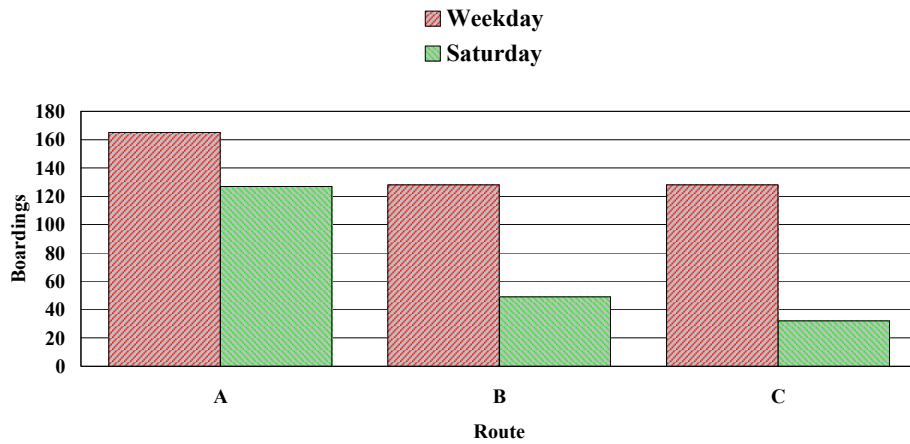


Figure 6
CitiBus Ridership By Period - Weekday

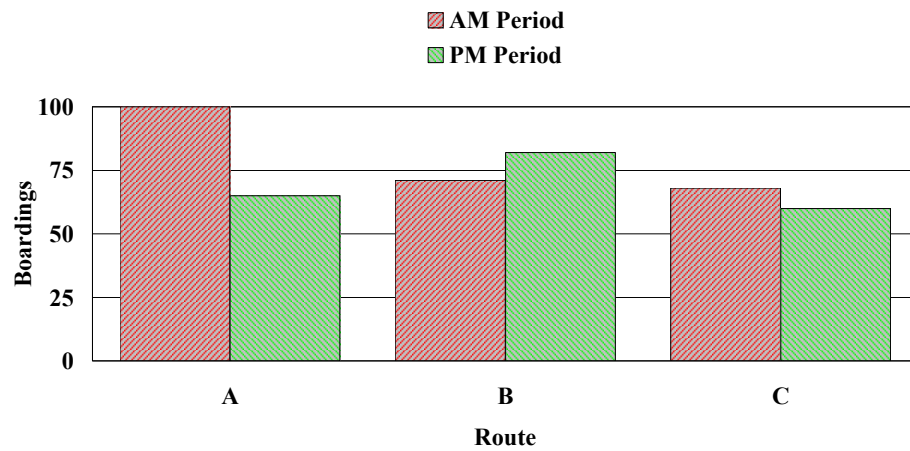


Figure 7
CitiBus Ridership By Period - Saturday

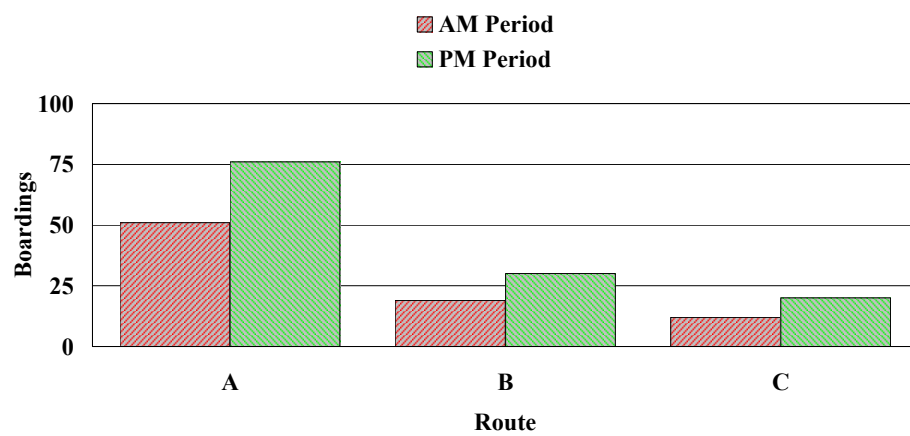


Figure 8
2000 Population

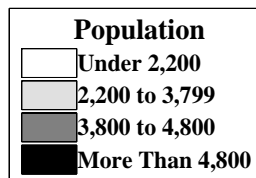
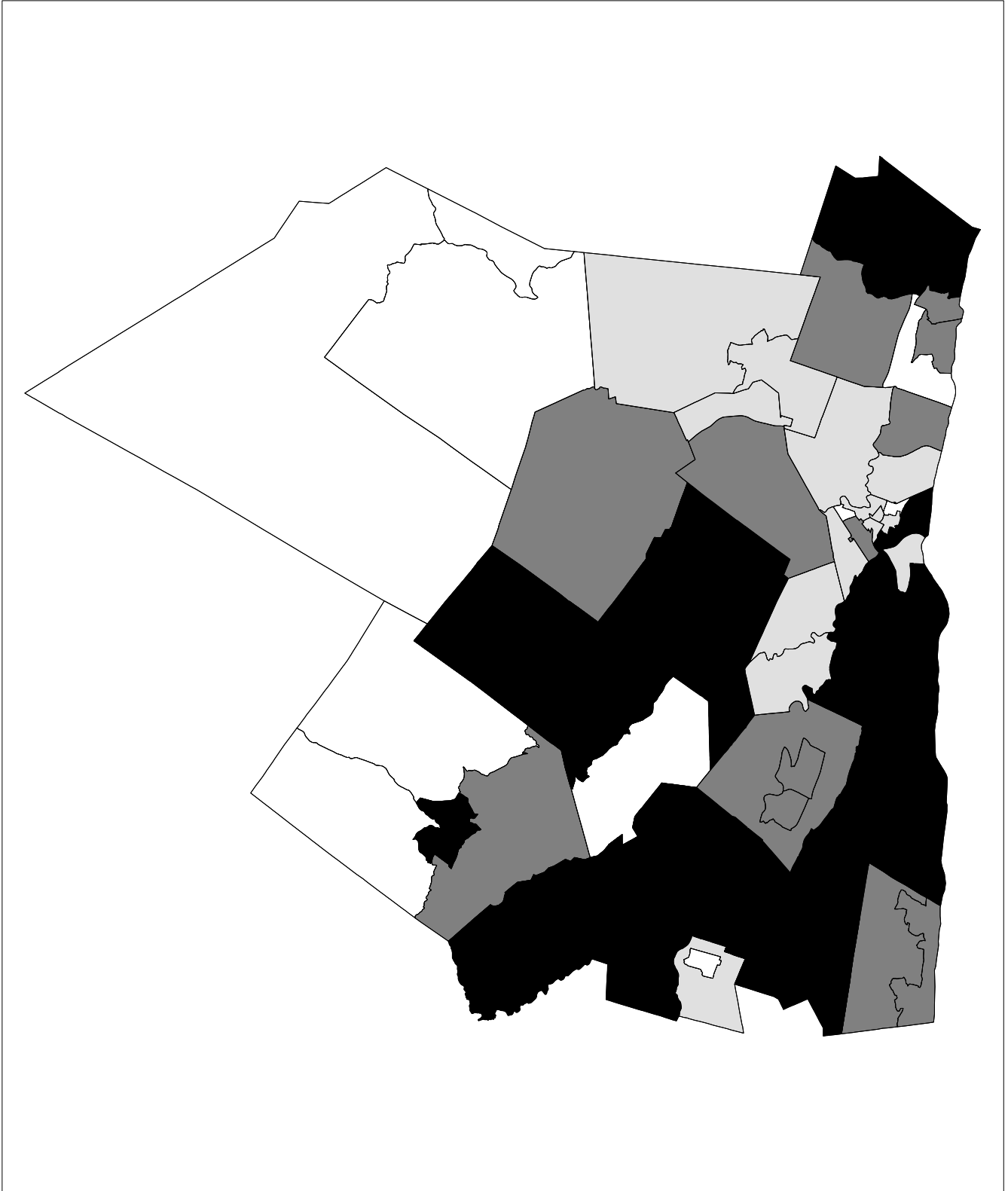


Figure 9
2000 Population Density

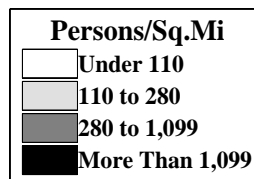
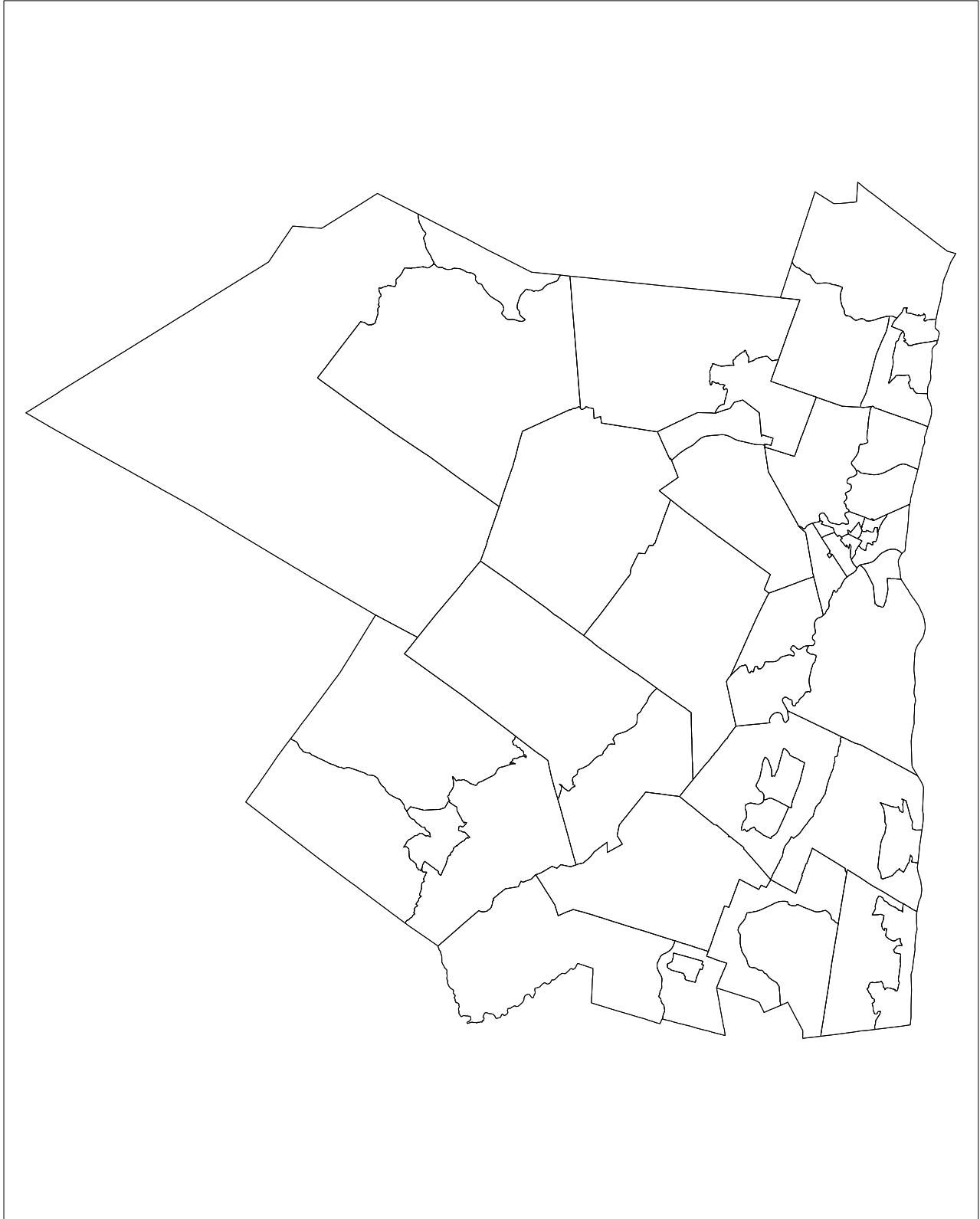


Figure 10
Senior Citizen Population (65+)

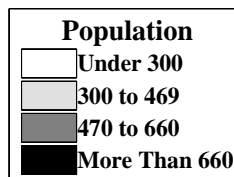
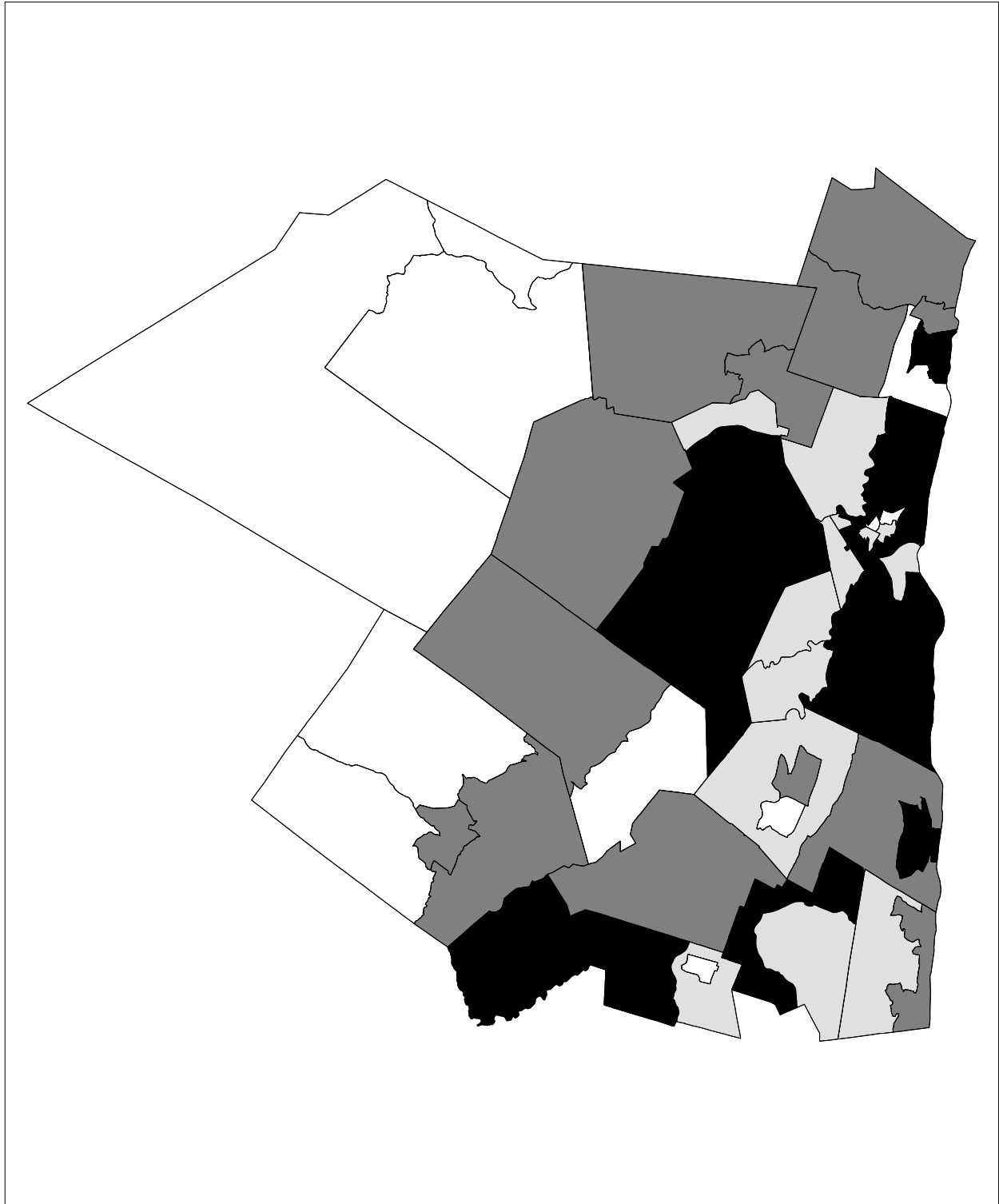


Figure 11
Senior Citizen Population (+65), Percent of Total Population

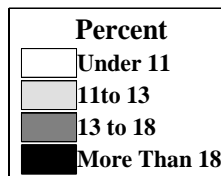
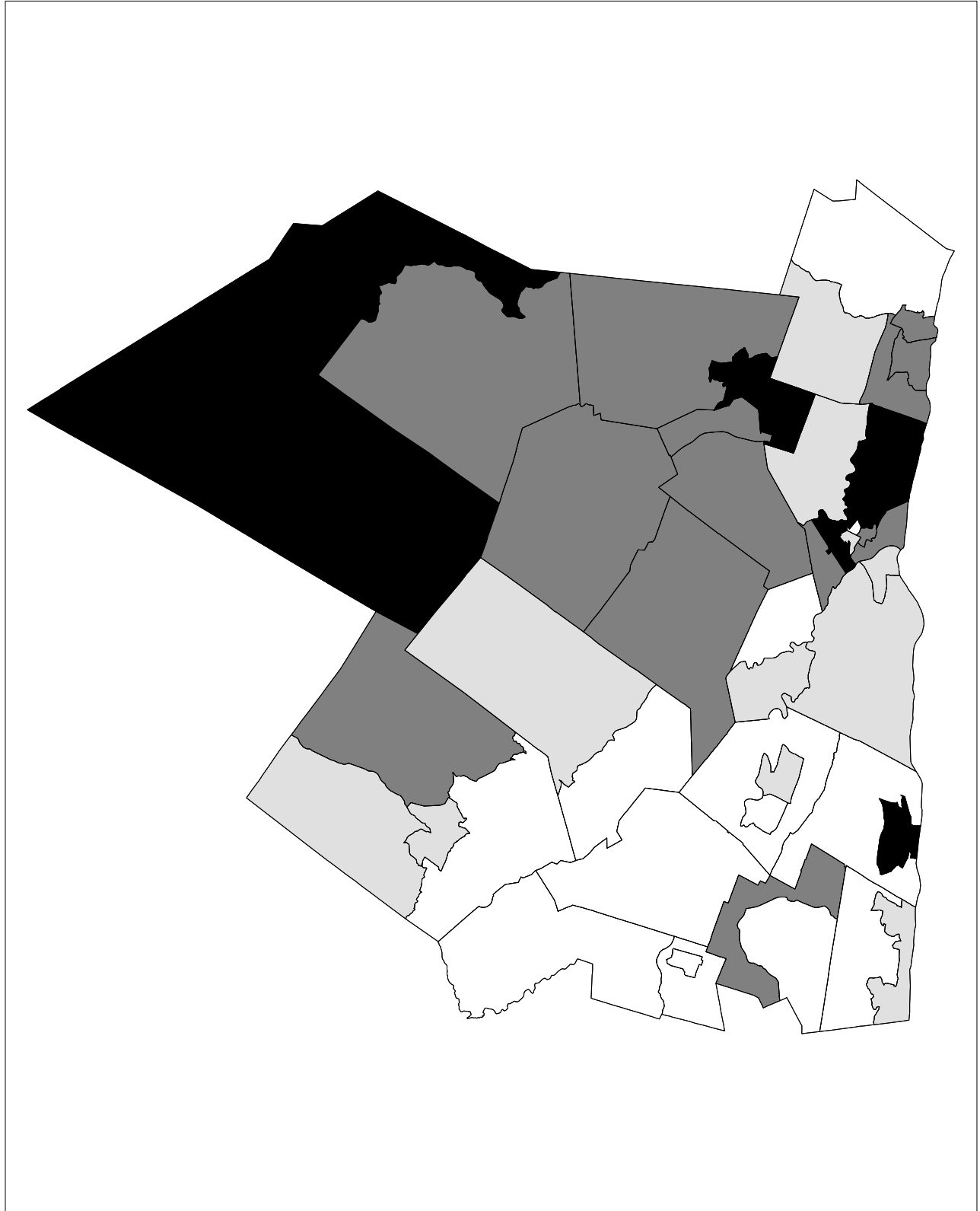


Figure 12
Senior Citizen Population (65+) Density

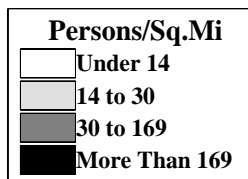
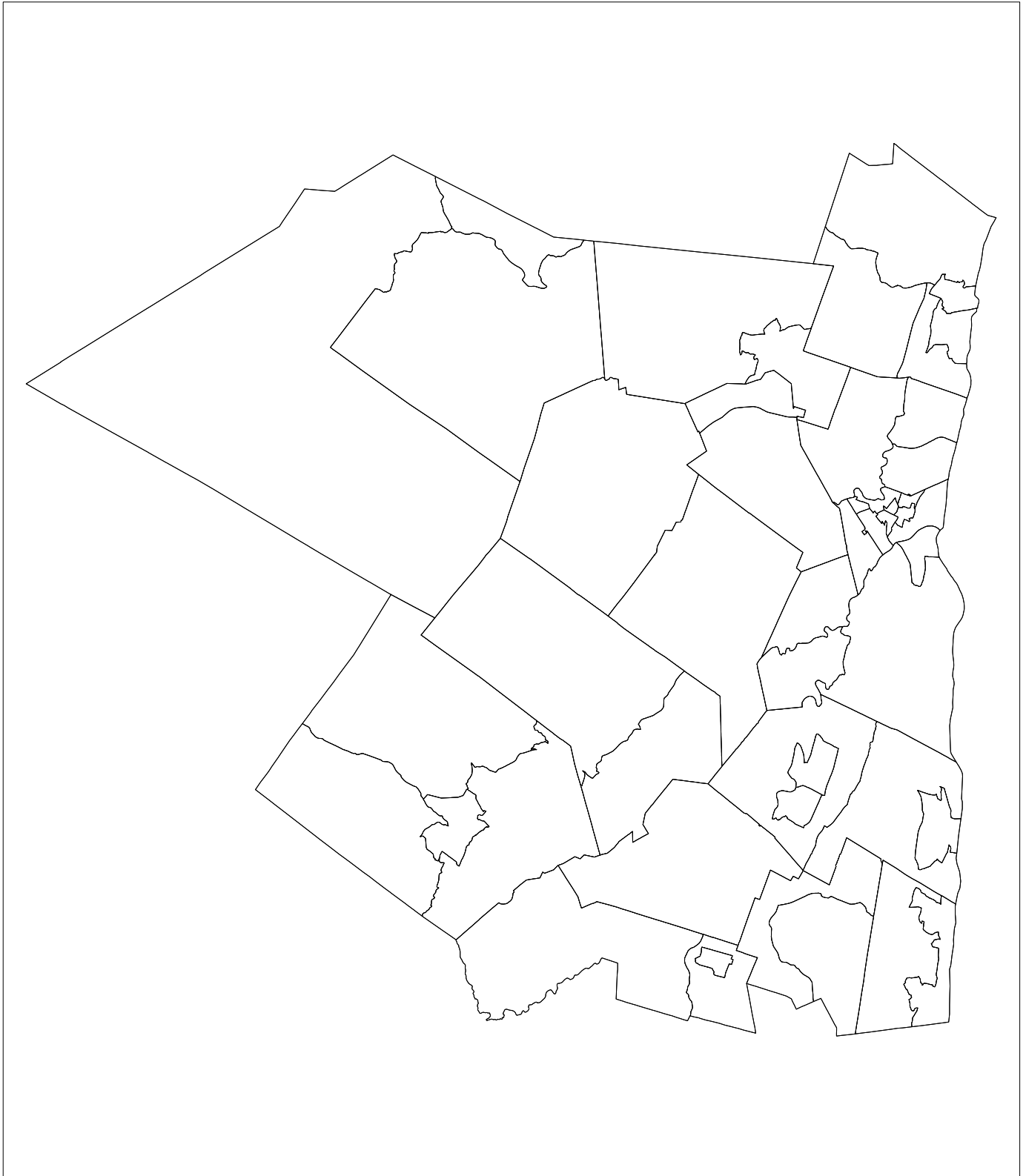


Figure 13
Senior Citizen Population (75+)

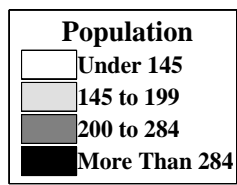


Figure 14
Senior Citizen Population (75+), Percent of Total Population

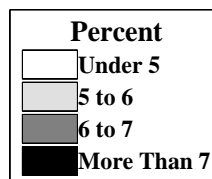
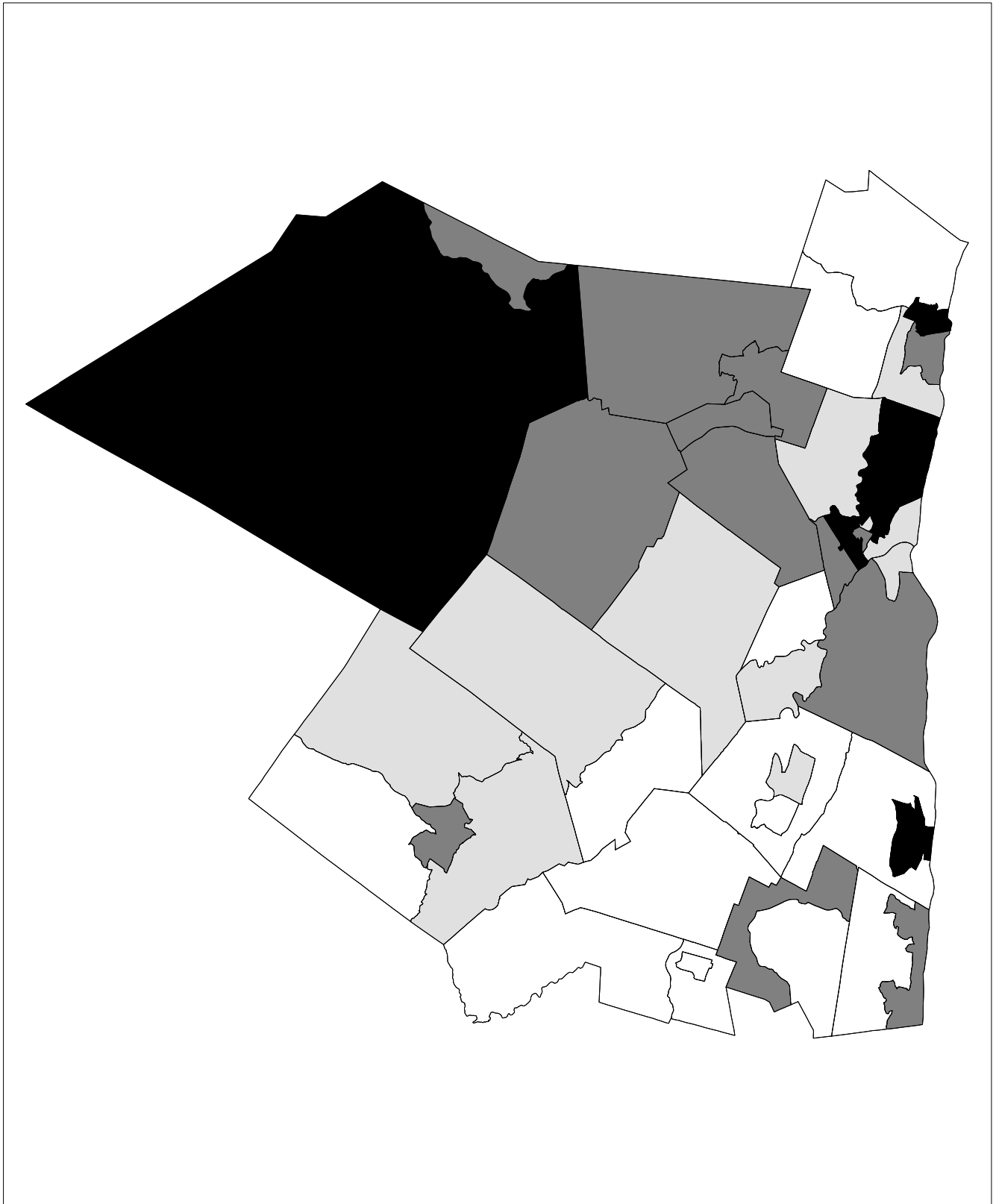


Figure 15
Senior Population (75+) Density

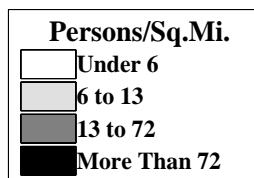
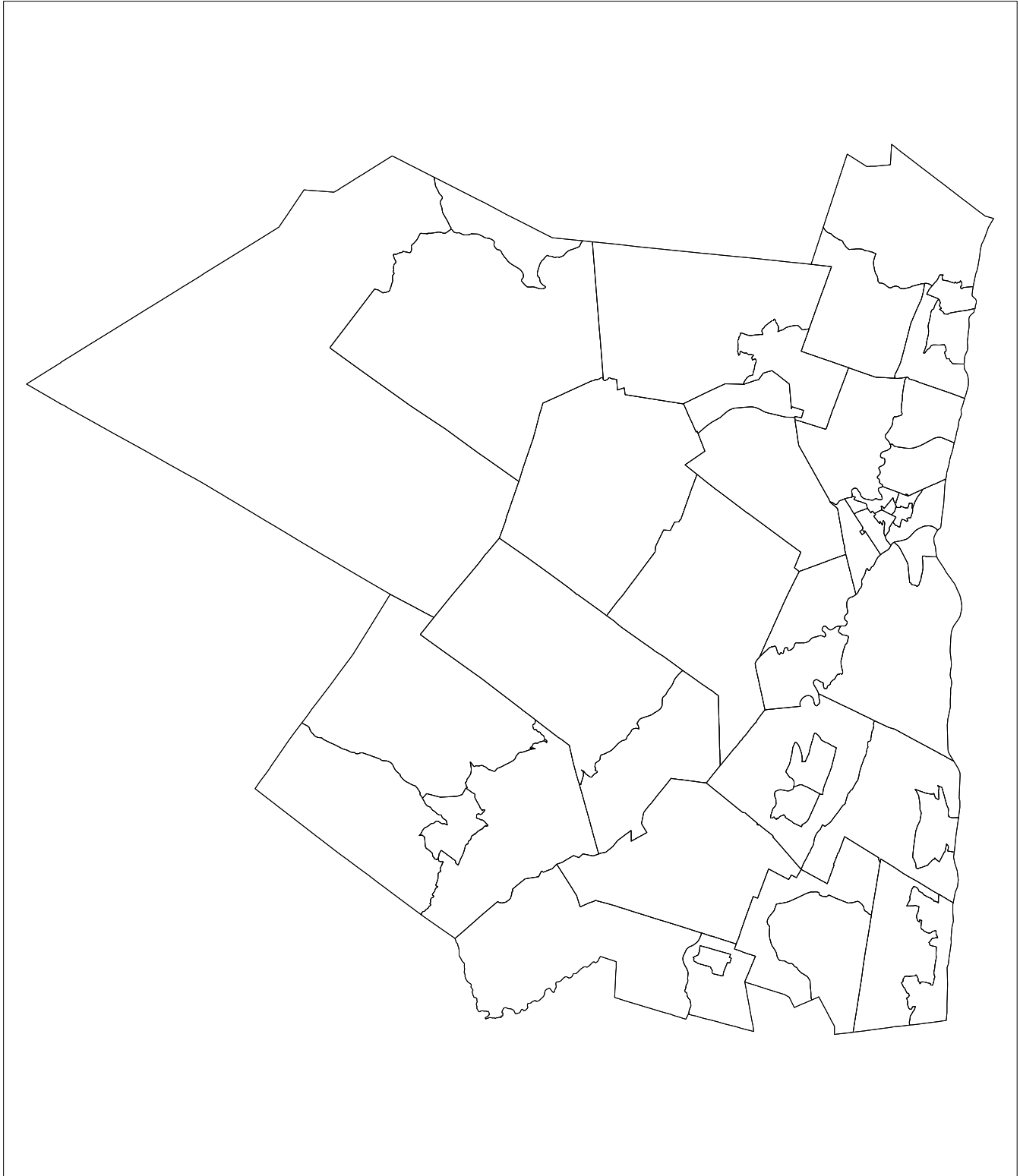


Figure 16
Youth Population

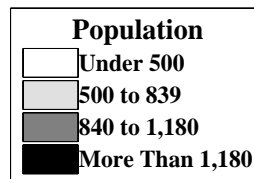
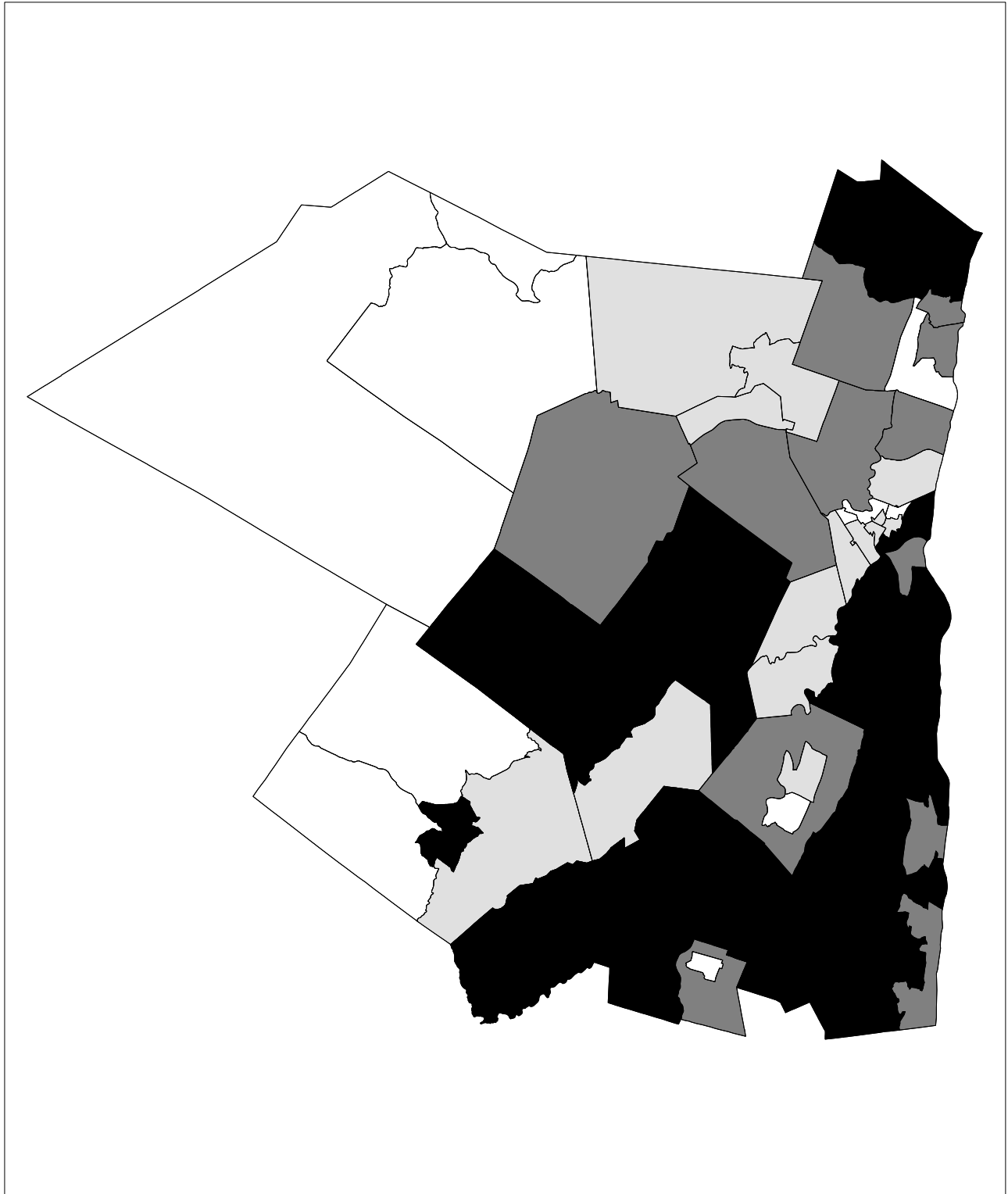


Figure 17

Youth Population, Percent of Total Population

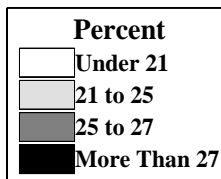


Figure 18
Youth Population Density

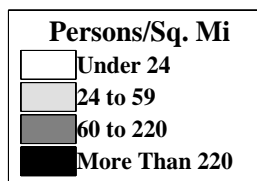
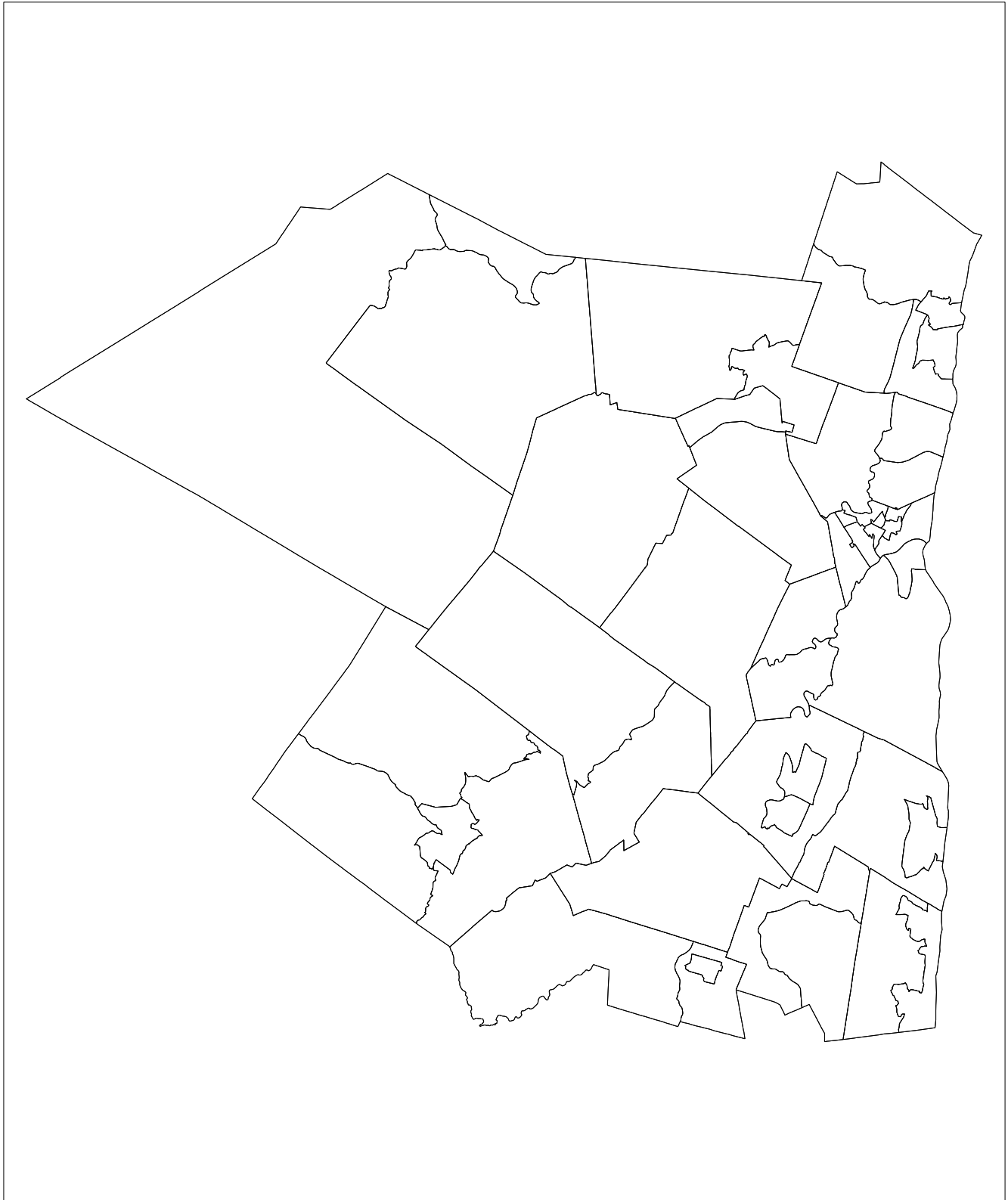


Figure 19
Zero Car Households

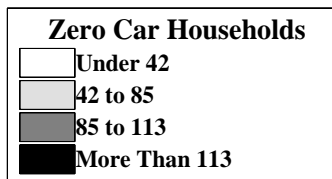
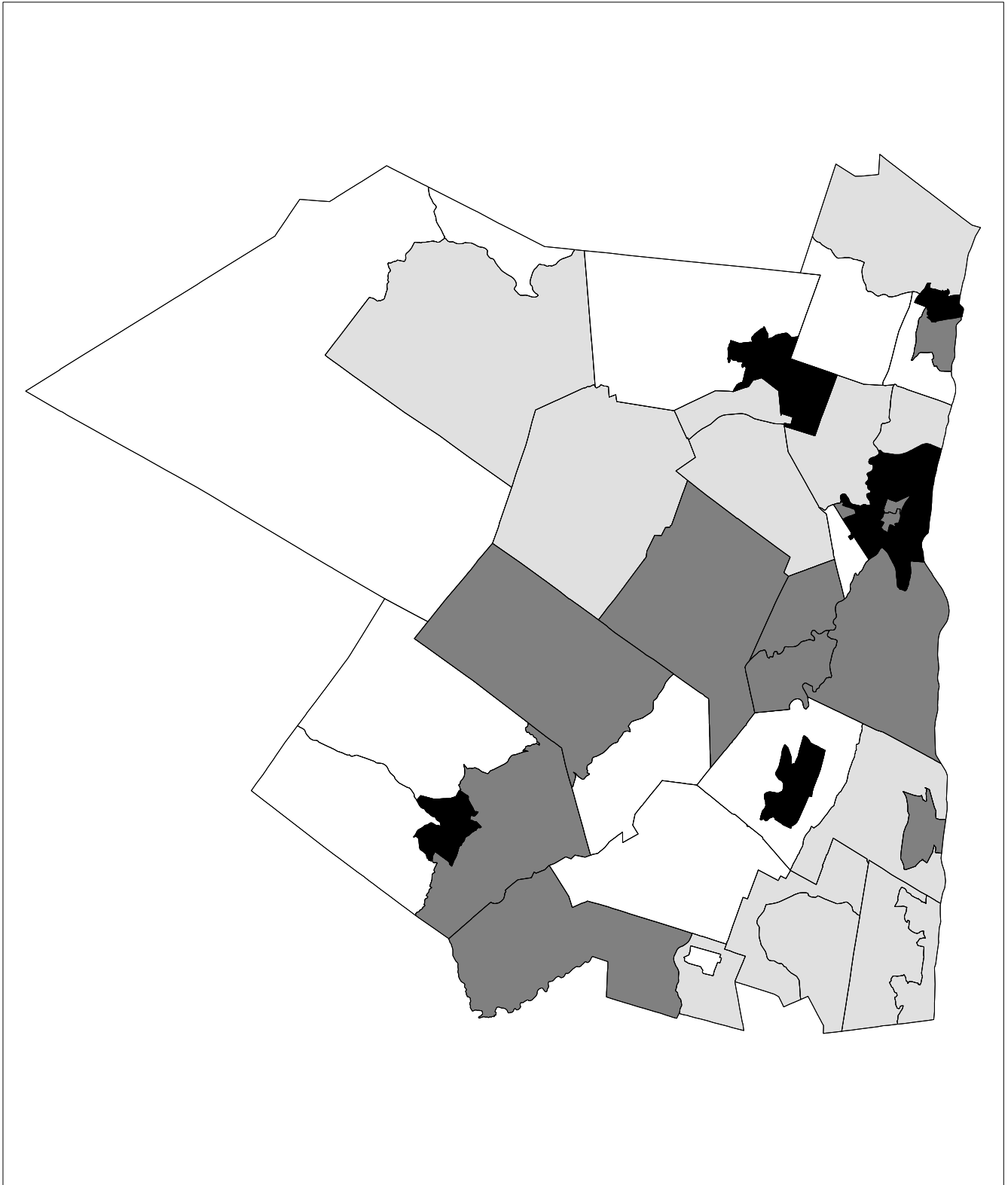


Figure 20

Zero Car Households, Percent of Total Households

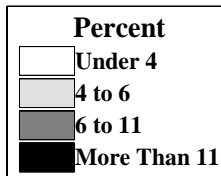
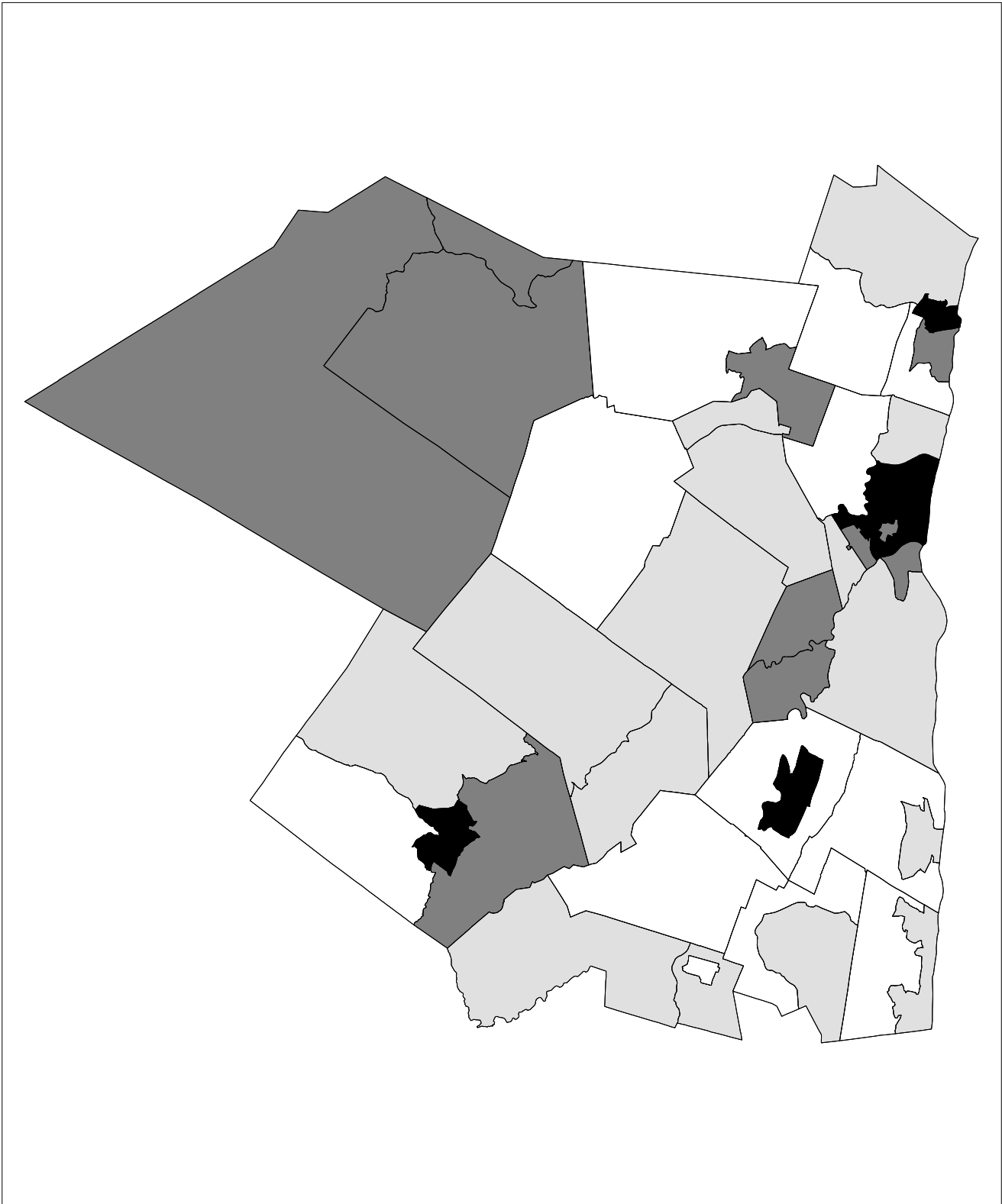


Figure 21
Zero Car Household Density

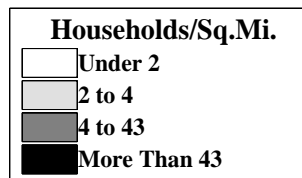
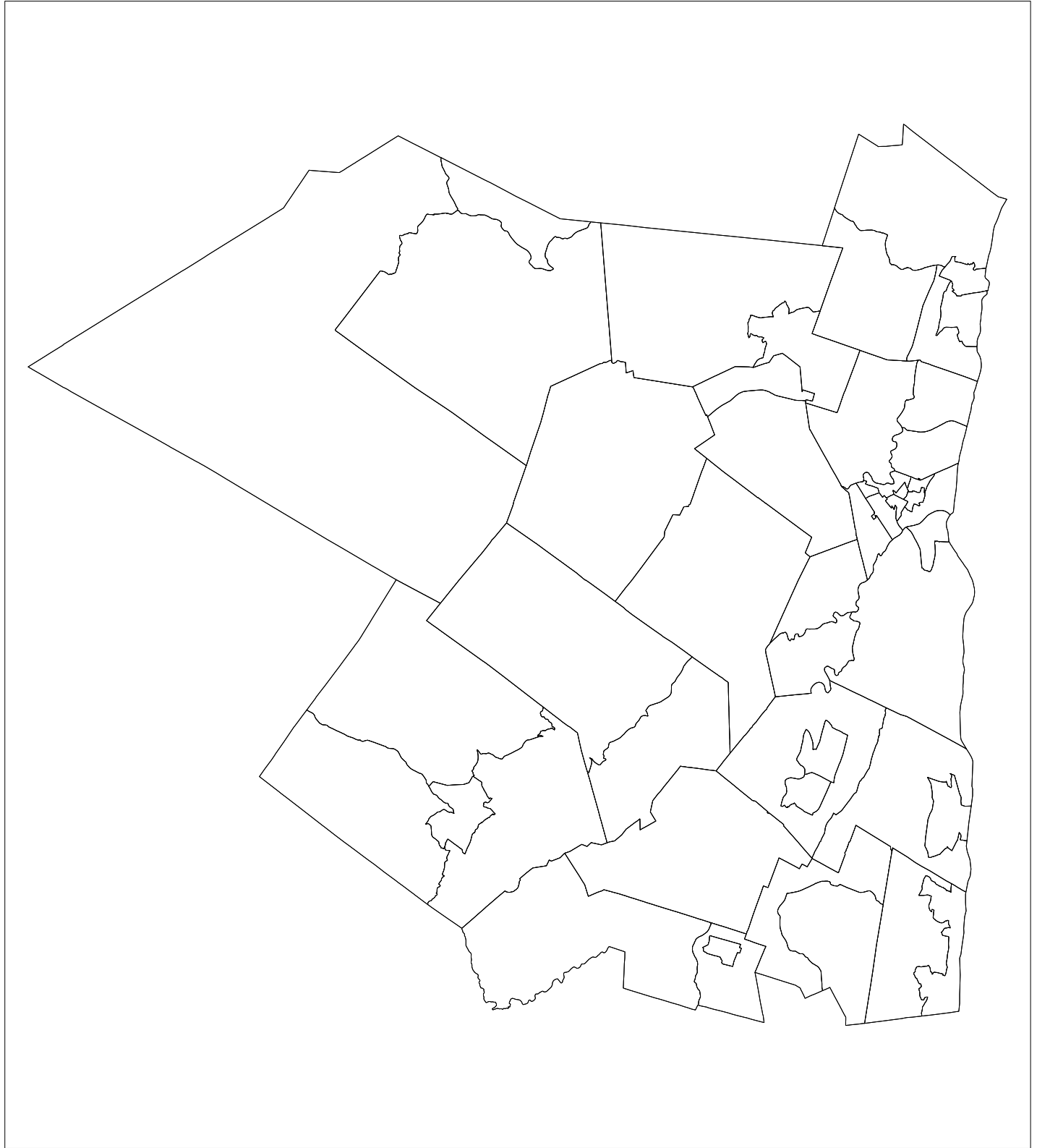


Figure 22
Poverty Population

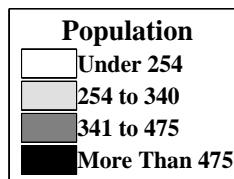
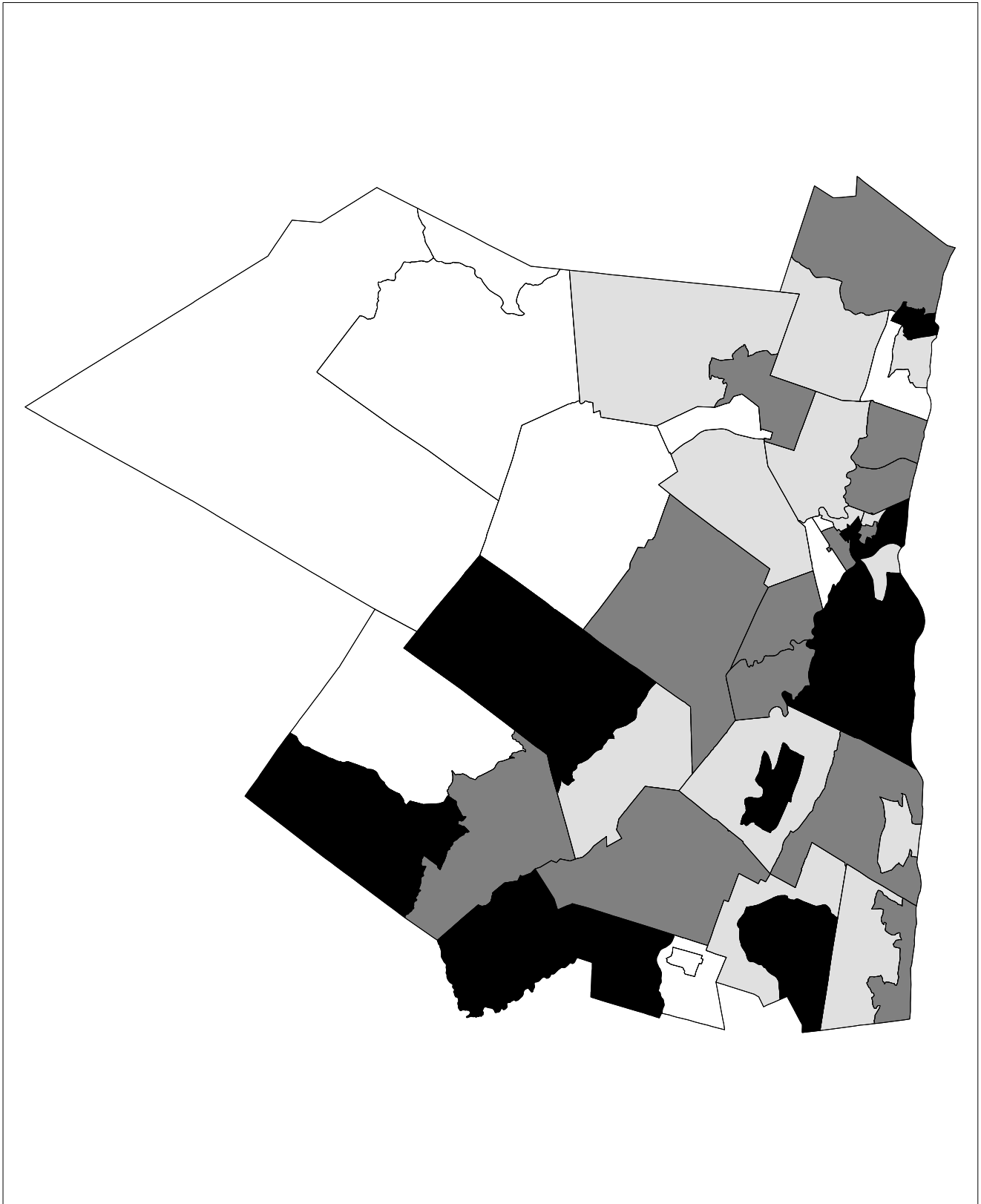


Figure 23
Poverty Population, Percent of Total Population

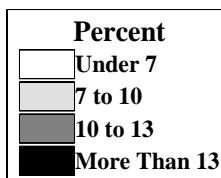
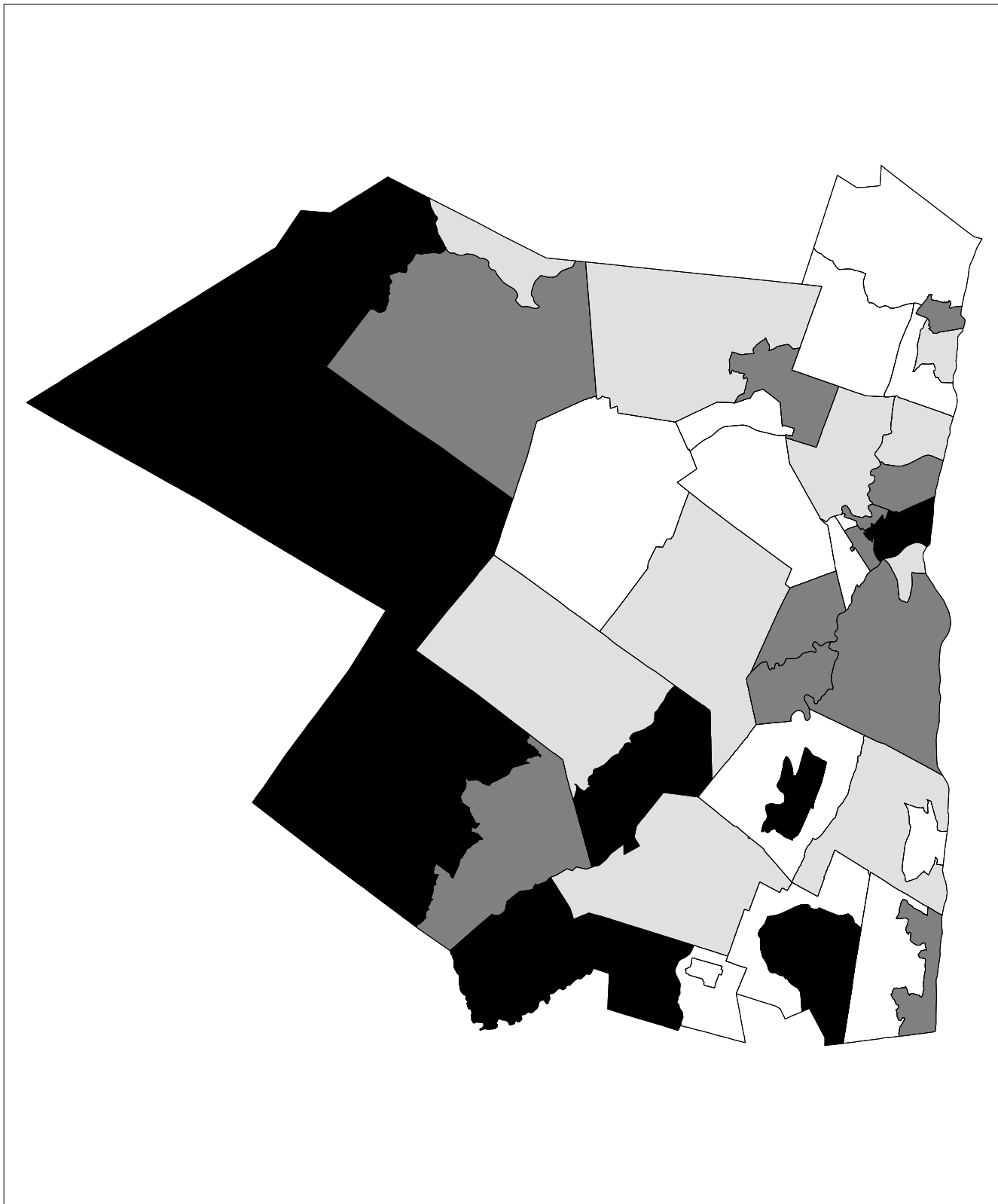


Figure 24
Poverty Population Density

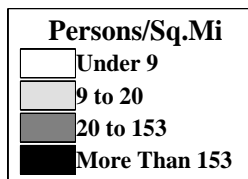
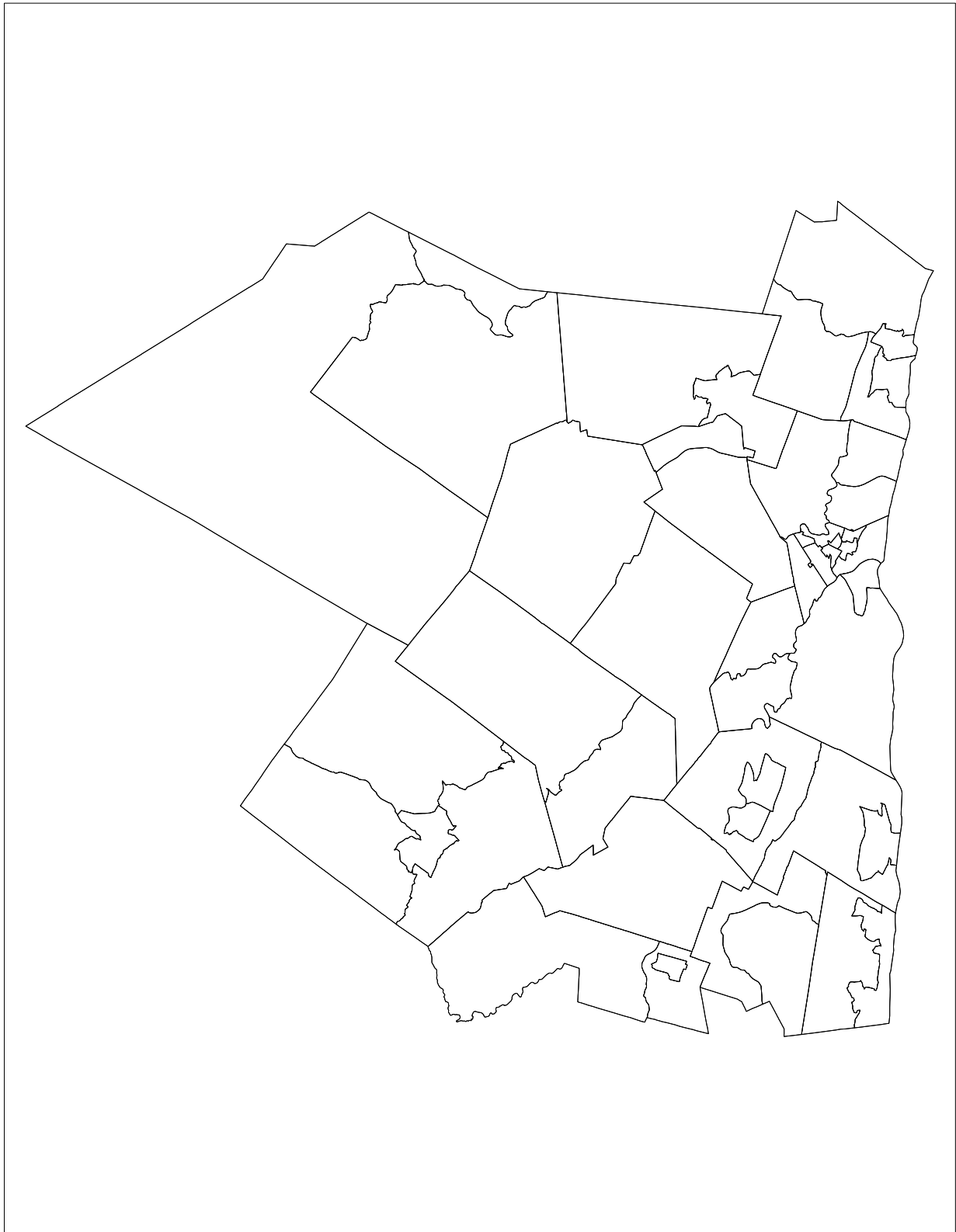


Figure 25
Number of Commuters Using Public Transit

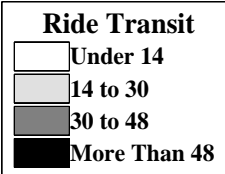
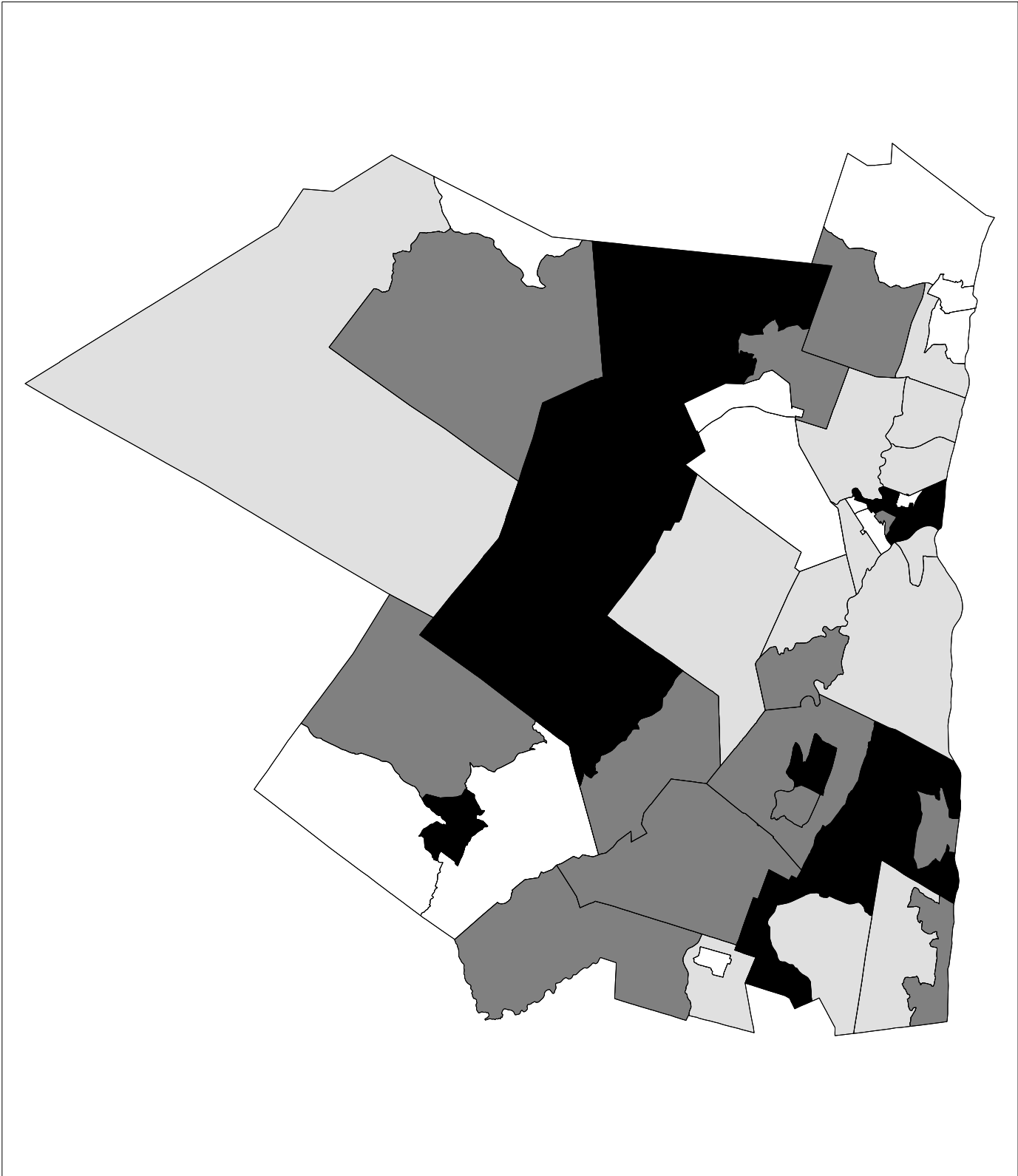


Figure 26

Percent of Population Using Public Transportation

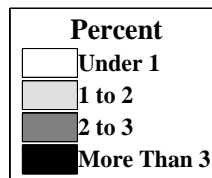
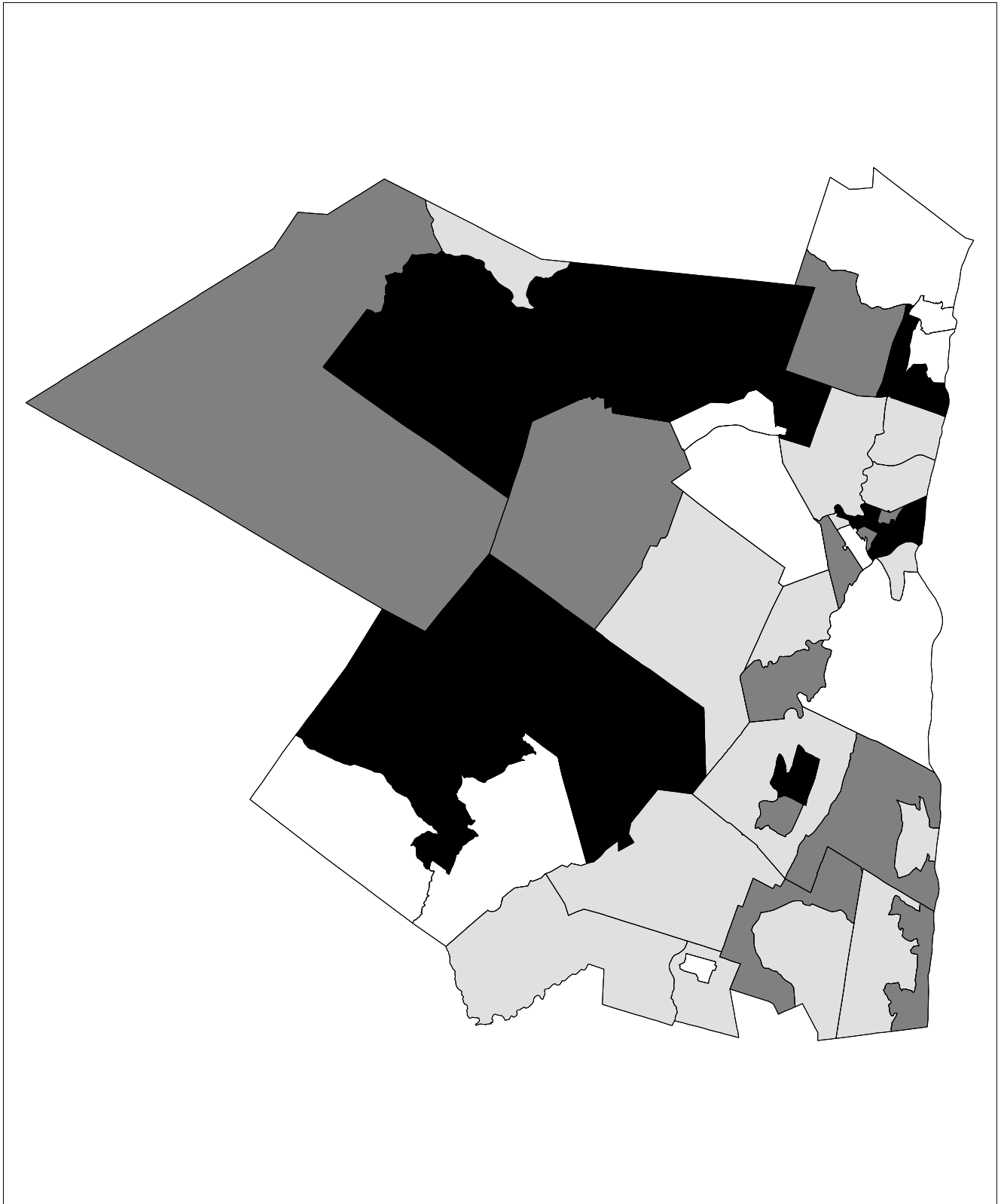


Figure 27
Labor Force

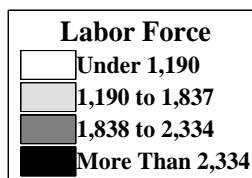
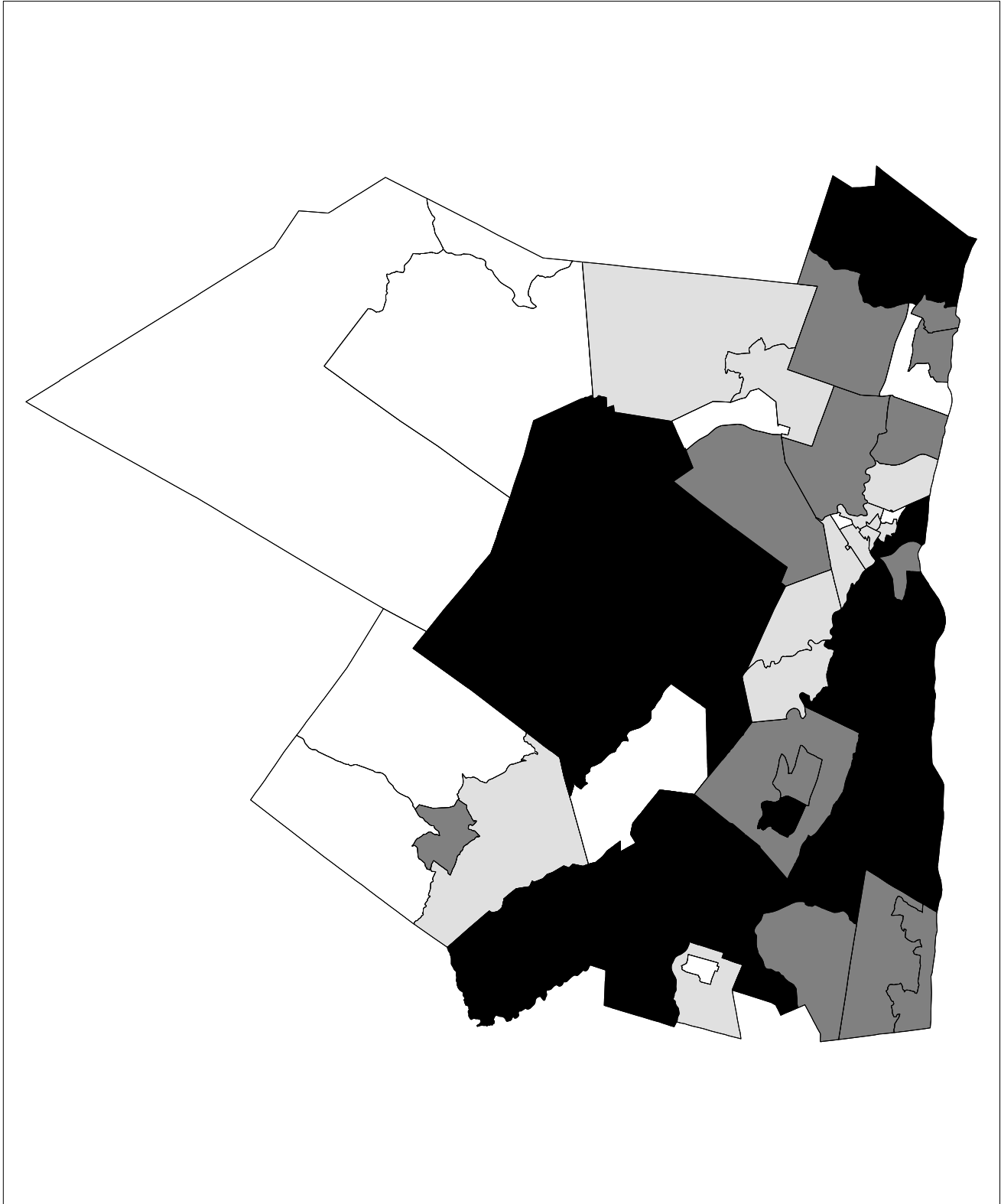


Figure 28
Labor Force Density

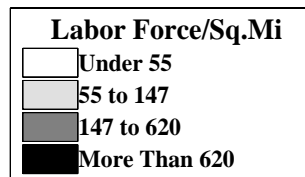
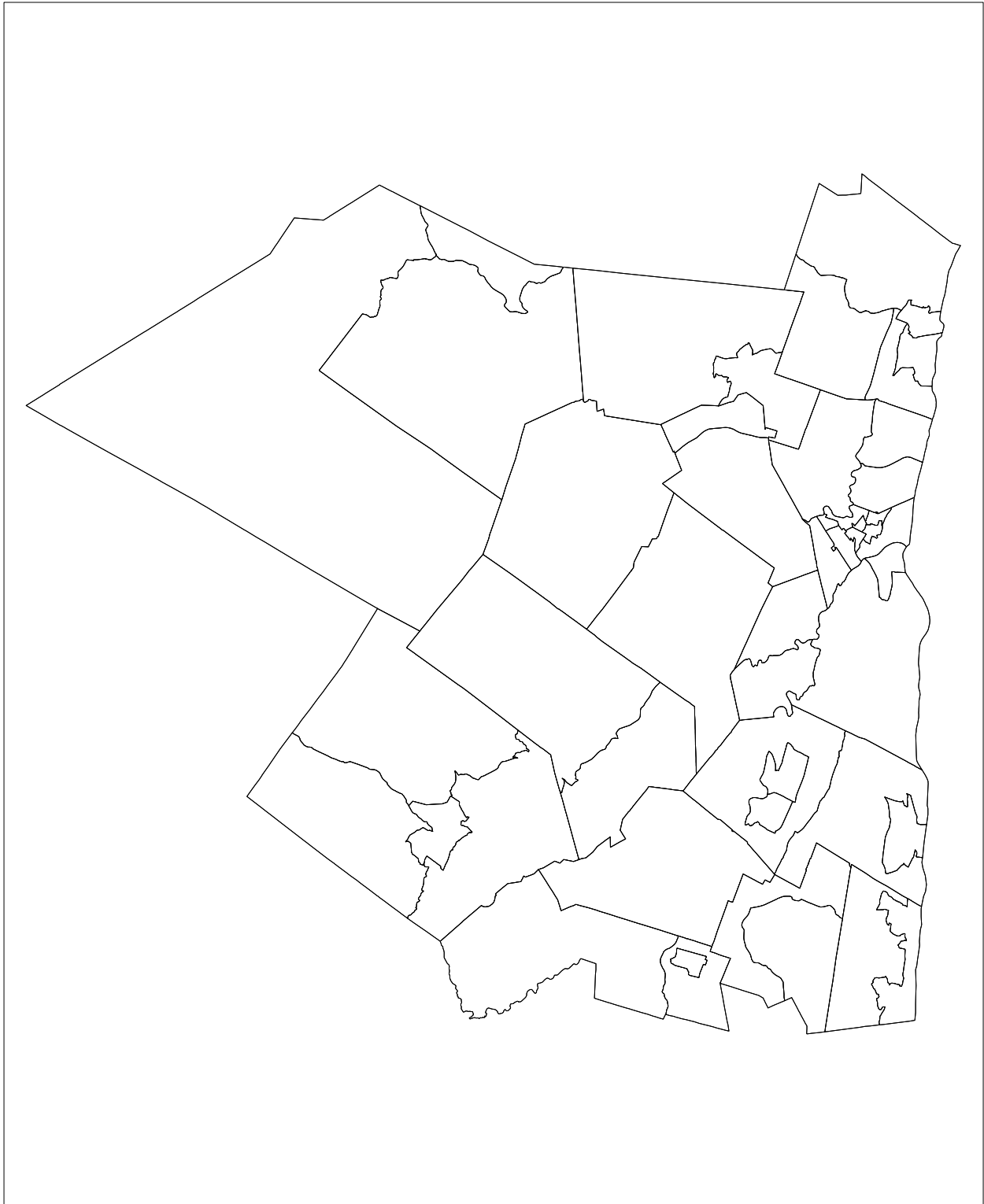


Figure 29
Employment

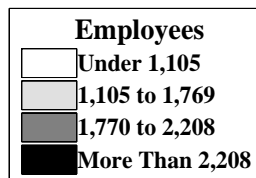
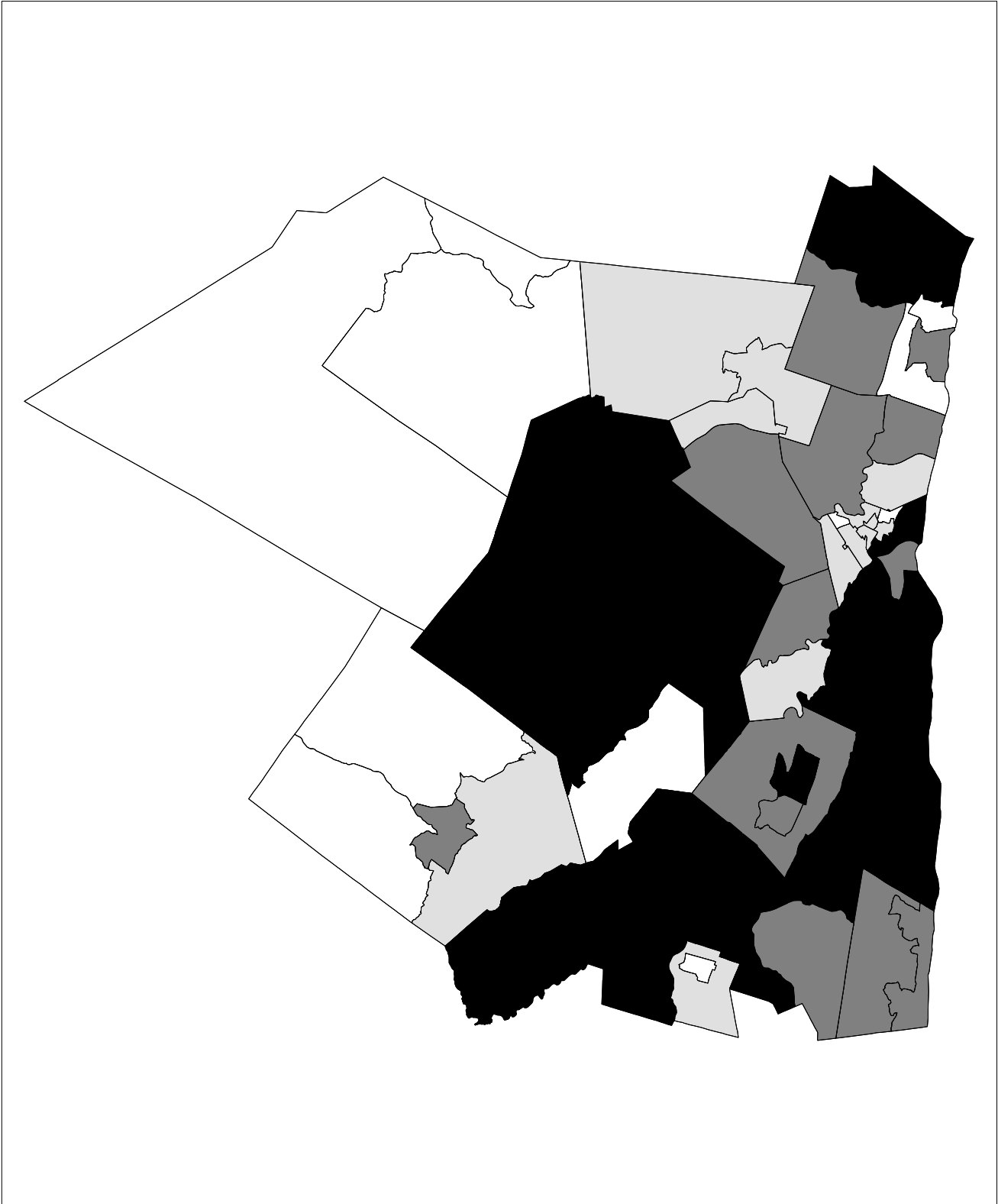


Figure 30
Employment Density

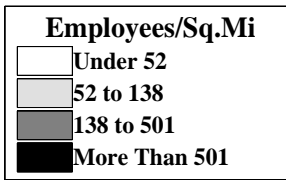
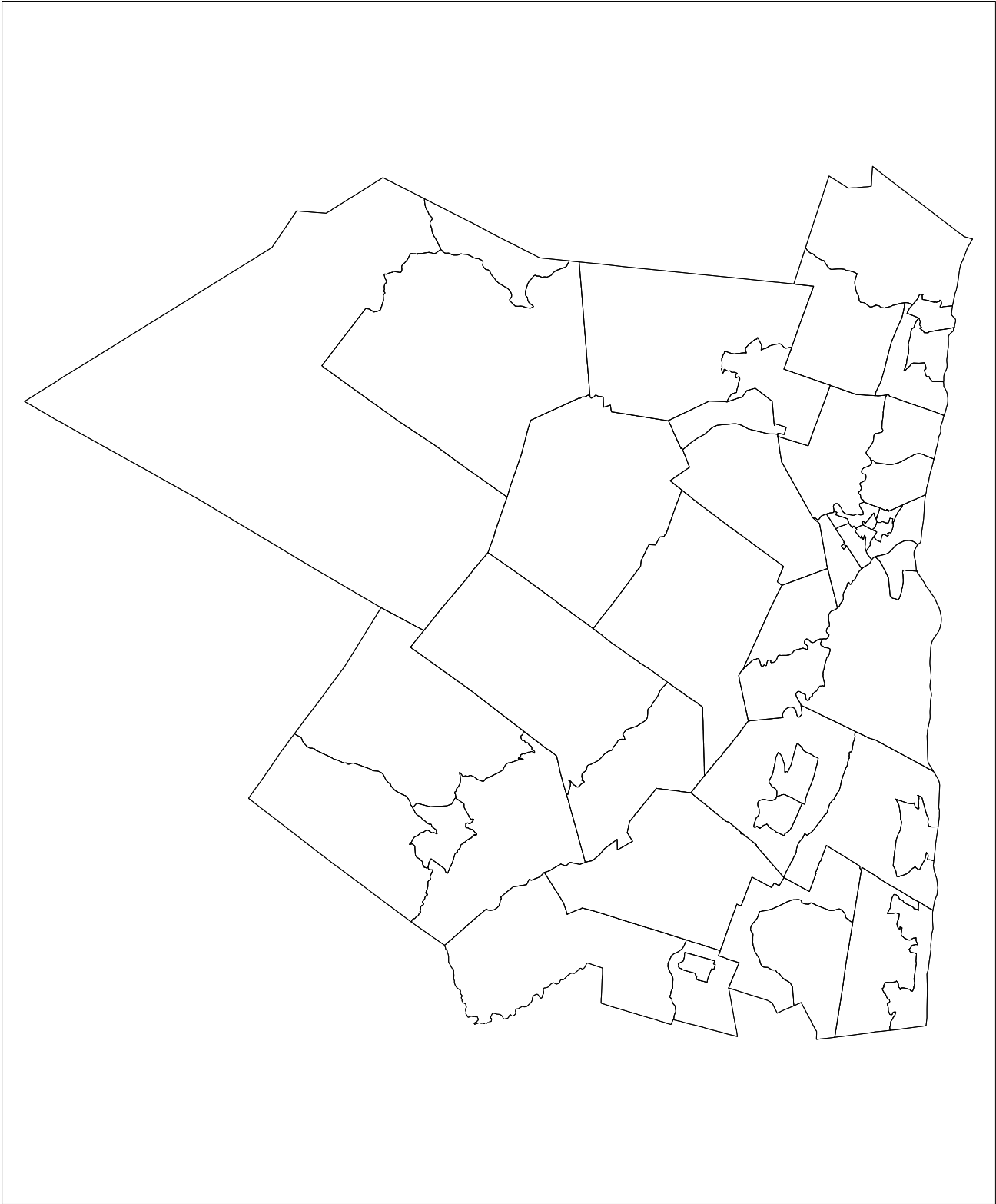


Figure 31
Transit Needs Score

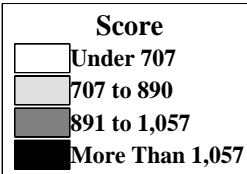
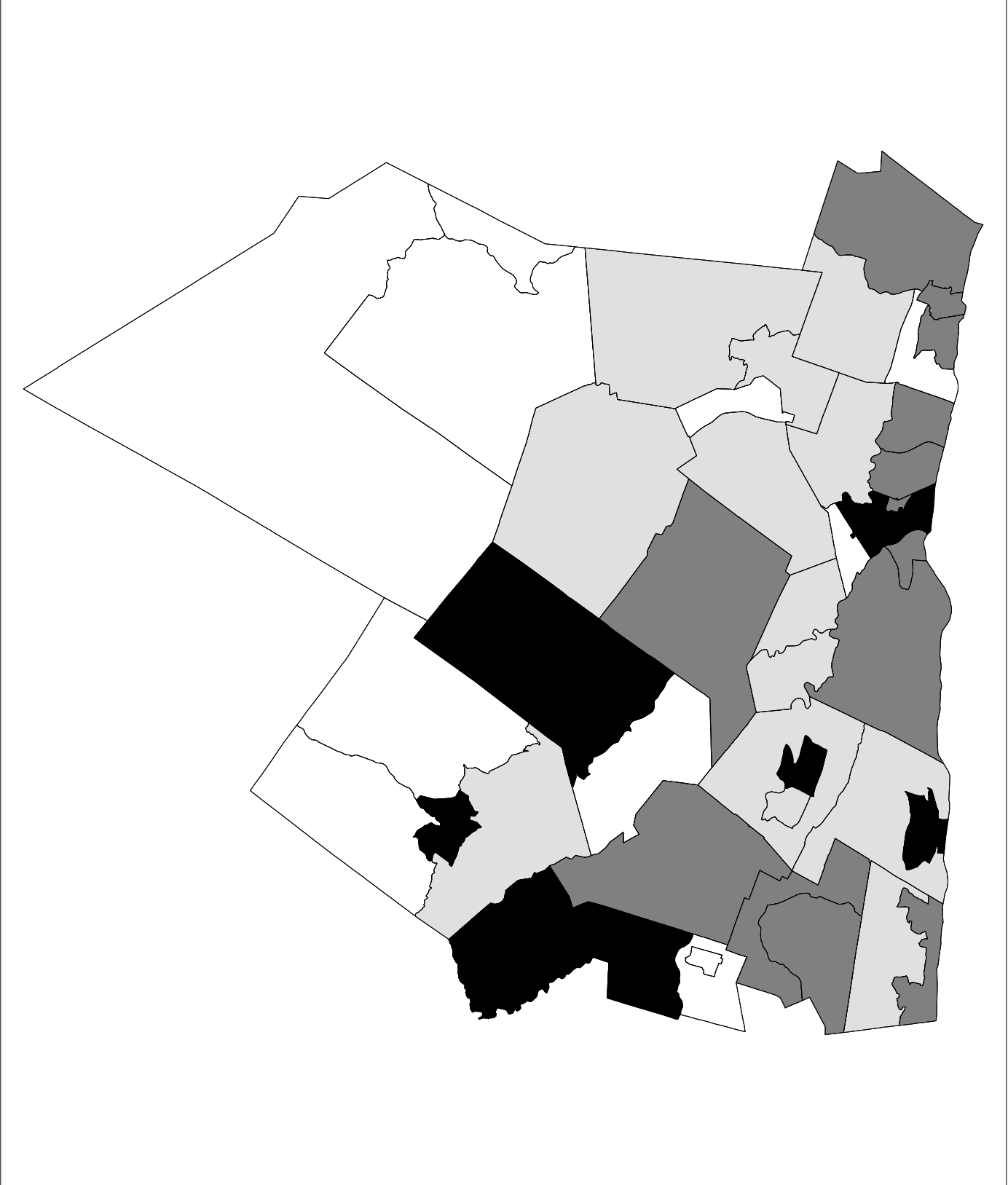
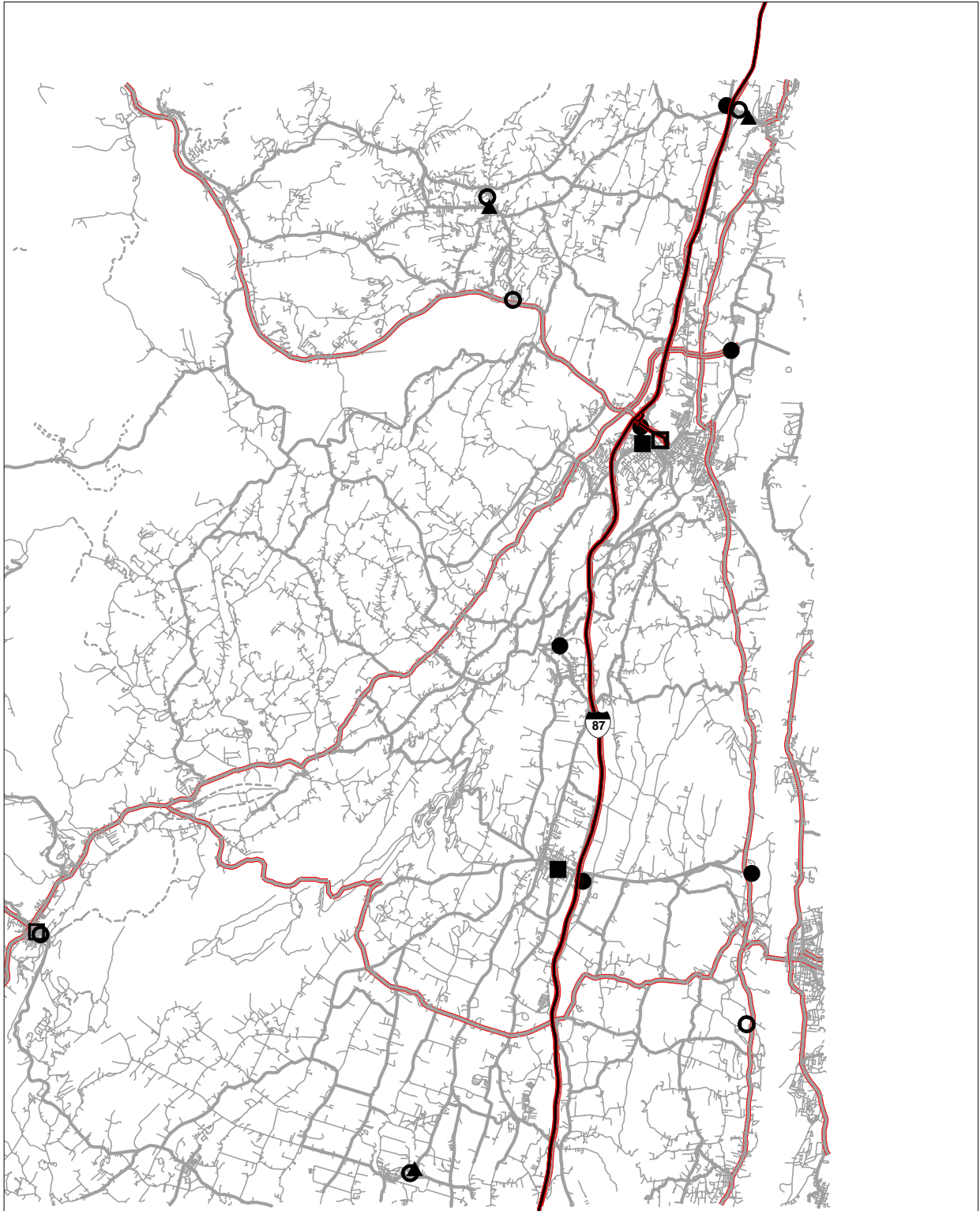


Figure 32 - Existing and Proposed Facilities



- Legend**
- Existing Terminal
 - Proposed Terminal
 - Existing Parking
 - Proposed Parking
 - ▲ Improved Amenities