

ULSTER COUNTY TRANSIT DEVELOPMENT PLAN

Technical Memo #1: Community Profile and Service Overview

January 2012



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Chapter 1. Introduction

Ulster County and Ulster County Transportation Council (UCTC) retained Nelson\Nygaard Consultant Associates, along with Fitzgerald & Halliday, Inc. (FHI) to evaluate the County's existing transit services and determine how service can be improved for County residents over the next decade. The study will identify service needs and opportunities, review existing service performance and productivity, and use this information to lay out a strategic plan to address gaps and opportunities with the goal of improving service delivery over a ten- year planning period. The analysis and resulting recommendations are intended to include the full spectrum of service delivery spanning organizational, communication, capital and service structures.

This memo, Technical Memo 1: Community Profile and Service Overview, reports on the results of the initial analysis of transit services in Ulster County and the service area characteristics. The technical memo is organized into four chapters immediately following this introduction:

- **Chapter 2: Community Profile** – provides an overview of the demographic and employment patterns of Ulster County. It also discusses the implications of this data for transit in the county.
- **Chapter 3: Overview of Transit Services** – describes Ulster County's existing transit services, and how they relate to one another.
- **Chapter 4: Service Performance** – discusses the methods and measures for evaluating transit service performance and presents an initial assessment of UCAT and Citibus ridership, productivity, and mode split.
- **Chapter 5: Key Findings** – a synopsis of the initial findings of this study and final recommendations of previous studies.

Technical Memo 1 is the first memo in a series and is intended as a working paper. All findings and recommendations should be considered preliminary.

Chapter 2. Community Profile

Introduction

A key aspect to assessing the demand and potential for public transportation services in a community lies in understanding the geography, demographics and available transportation infrastructure of the region. Some individuals, due to economic or physical constraints, have limited access to private automobiles and consequently, rely on public transportation services to meet their daily transportation needs. Other individuals have access to an automobile and will choose public transportation only if the service offers them comparable convenience and/or lower costs. The key to developing successful public transportation services, therefore, is to understand how public transit can efficiently and effectively meet the needs of the transit dependent markets and at the same time, offer a sufficiently attractive service to attract choice riders to the system.

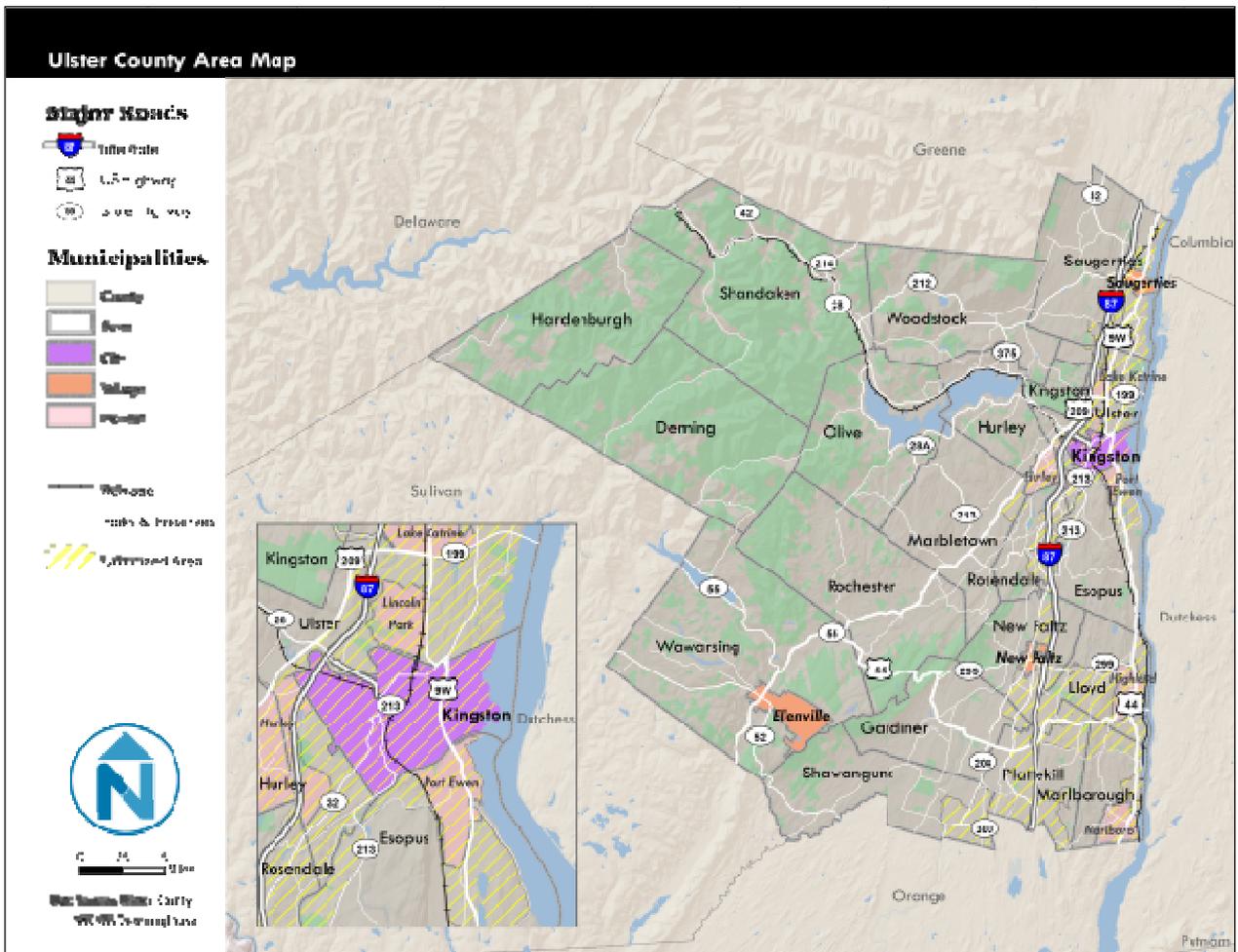
As transit services are most often publicly funded, it is also important to ensure that the services are designed to make the best possible use of taxpayer dollars. Traditional fixed-route transit services are most efficient when they operate in high-density environments (3,000-4,000 persons per square mile). Lower-density environments may be better served by other types of transit, including vanpools, express buses, or demand-responsive services. Thus, as we examine the existing public transportation services in Ulster County, we must look for opportunities to design services that are both attractive to users, effective in their use of taxpayer funding, and cognizant of the ability to fund.

The following analysis of Ulster County's geography, demographic characteristics, major employment sites, and activity centers is meant to highlight both constraints and opportunities for transit service in the county.

Geography and Transportation Infrastructure

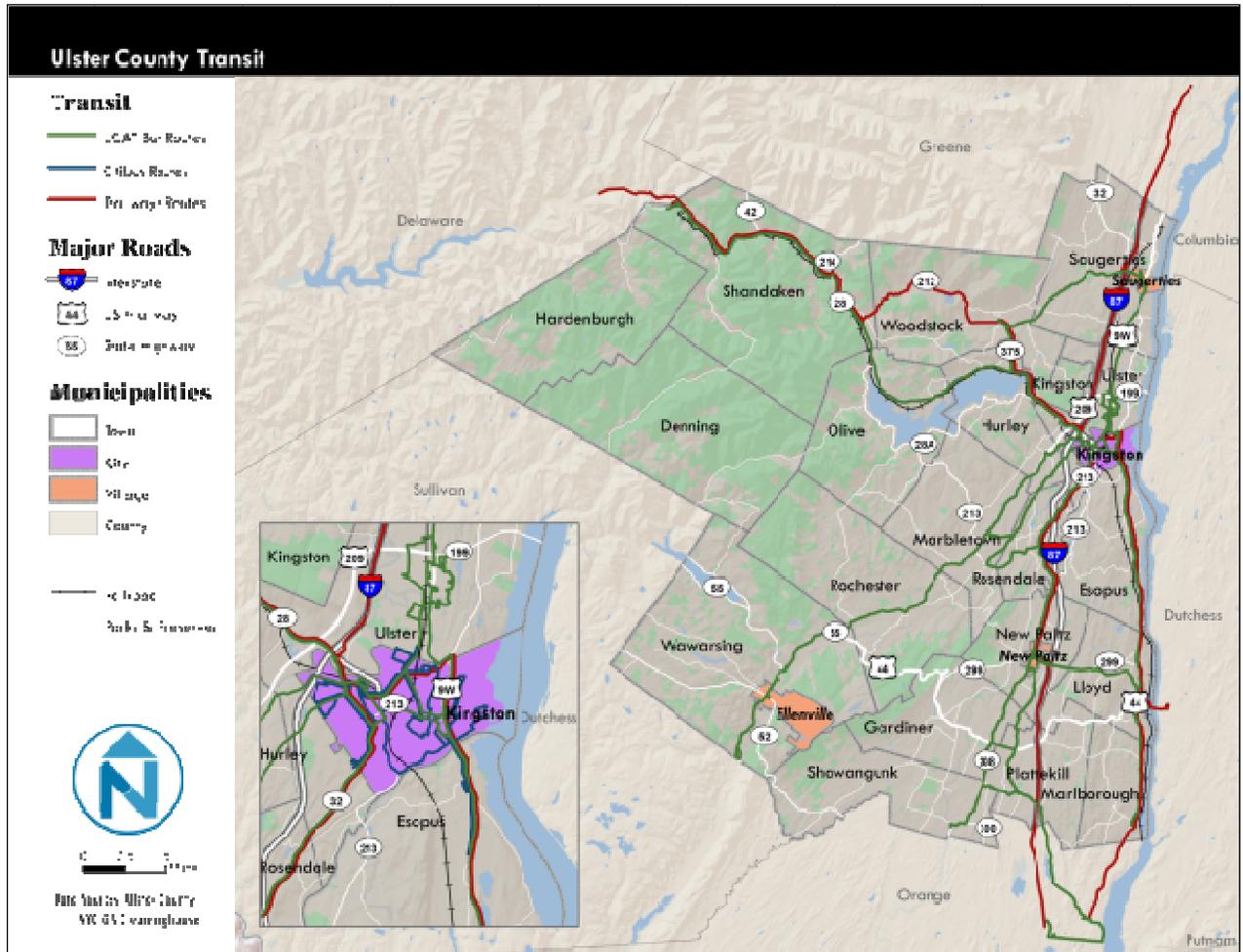
Ulster County sits among the Catskill Mountains in the Mid-Hudson region of New York State. The urbanized areas of the county are shown on Figure 2-1 and are concentrated along the Hudson River corridor. Southern portions of the county are also part of the larger Mid-Hudson Urbanized area that includes both Dutchess and Orange Counties. The western portion of the county is largely comprised of rural areas and forest preserve. The county is also indirectly served by Amtrak and MTA's Metro North Railroad with stations just across the Hudson River in Dutchess County.

Figure 2-1 Service Area



A network of State highways connects the scattered population centers of Ulster County. These highways (Figure 2-1) radiate from Kingston or connect to Poughkeepsie, and provide an effective network for the county's public transit services (Figure 2-2).

Figure 2-2 Transit Services



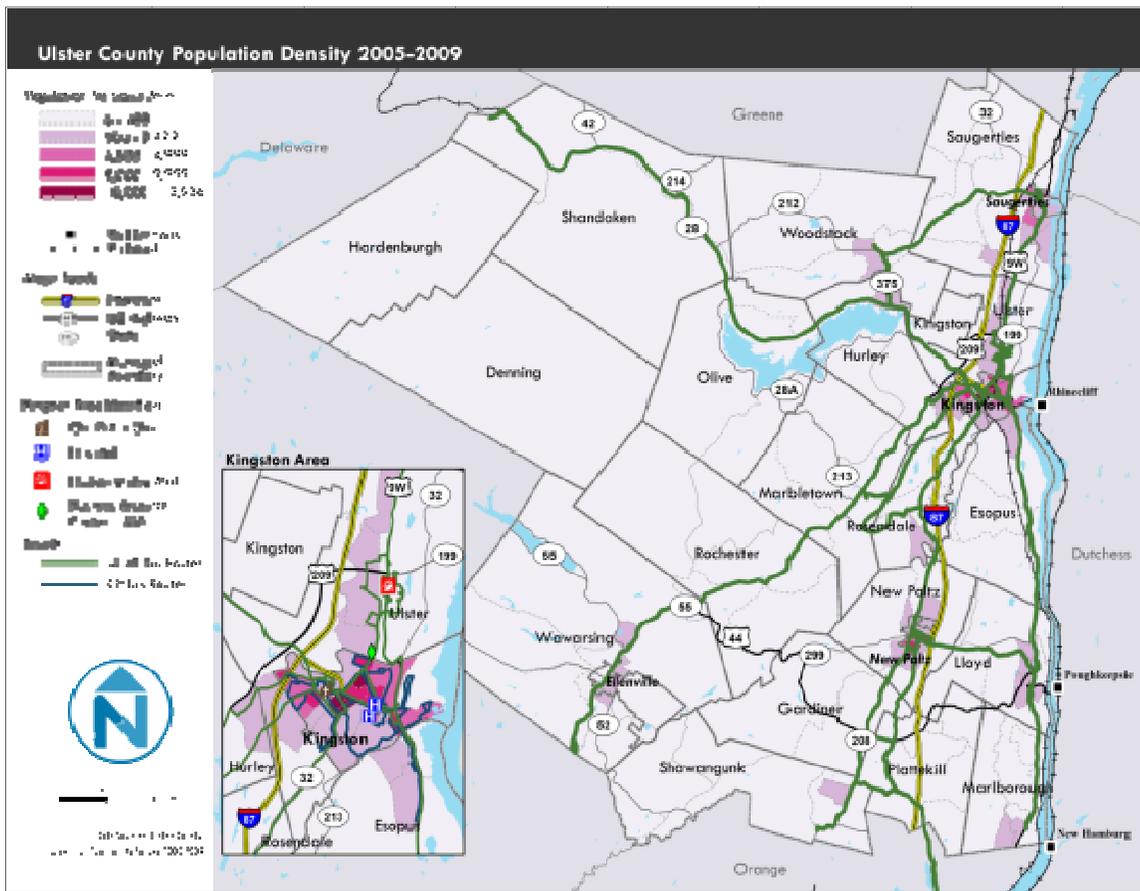
Ten park and ride lots are located in Ulster County. Three of the facilities, in Highland, New Paltz, and Rosendale, are served by UCAT routes. Six other lots serve either carpools or regional commuter bus services, but do not serve UCAT routes. These lots are in Kingston (3), New Paltz, Saugerties, and Ulster (2).

Demographic Analysis

According to the US Census Bureau, the population of Ulster County grew 2.7% between the years 2000 and 2010. Despite the slow growth, the county set a new population record with 182,493 residents in 2010. The county outpaced New York State, which grew by 2.1% during the same time period, but was far below the national rate of 11.1%. In general, the county has a relatively low-density settlement pattern with roughly 161 residents per square mile, but population density increases significantly toward the eastern edge of the County. Figure 2-3 shows population per square mile per the 2005-2009 American Community Survey estimates.¹

¹ For this demographic analysis, data by block group was only available from the 2005-2009 American Community Survey. Census 2010 data is not yet available at the block group level for Ulster County. In the case of persons with

Figure 2-3 Population Density



Myriad factors affect transit ridership, from development patterns to service quality to marketing and information. As previously noted, a general guideline for population density that will support local fixed-route bus service is approximately 3,000-4,000 persons per square mile, or 5-10 dwelling units per acre.² A number of areas in Ulster County meet or exceed that guideline. The western portion of the county is sparsely populated because much of it is occupied by the Catskills Mountains. A total of 32% of the county's land use is parks and wilderness.³

Over the last decade, changes in population occurred throughout the county, as shown in Figure 2-4. The downtown Kingston inset, which also shows the population density thematic from Figure 2-3, shows that population grew in the densest areas of downtown, and despite losses along the western side of the city, Kingston remains the county's population center. Outside the city limits, areas of Hurley, Esopus, and the Albany Avenue (Ulster) corridor (between the Thruway and 9W) have concentrated population. The Villages of New Paltz and Saugerties have grown whereas Ellenville experienced a population decline. There has been little change to populations in the western portion of the county.

disabilities, the American Community Survey does not have block group-level data. As of this writing, the 2009 1-year estimates have data on disability status by place level.

² Toolbox for Alleviating Traffic Congestion. Institute for Transportation Engineers.

³ Year 2035 Long Range Transportation Plan, p. 3-13

Figure 2-5 Top 10 Population Centers

Census-Designated Place	Total Population
City of Kingston	23,456
Village of New Paltz	6,034
Highland	5,060
Village of Saugerties	4,955
Village of Ellenville	4,130
Port Ewen	3,650
Hurley	3,561
Lake Katrine	2,396
Marlboro	2,339
Lincoln Park	2,337

Transit Markets

Certain demographic groups have a higher need for public transit or a greater willingness to try local bus service. Other population groups tend to be more receptive to express service to employment hubs. The following sections analyze the spatial distribution of people who are more likely to take transit as well as the location of activity centers and destinations that are likely to generate transit ridership. In general the two key markets for public transportation services include:

- "Transit Dependent" riders who do not always have access to an alternative transportation mode. This grouping includes individuals who may not be physically (or legally) able to operate a vehicle, or those who may not be able to afford to own a vehicle.
- "Choice" riders are those who usually or always have an alternate means of transportation (either by driving a car or getting picked up by someone) but choose to take transit because it offers them comparable convenience. For example, a choice rider might choose to add 10 minutes to their overall trip via bus in order to save a \$10 all-day parking charge. A commuter might choose to take a bus where they can work rather than fight through traffic congestion. In Ulster County, the large market of choice riders may be SUNY students -- not just from SUNY New Paltz but also from SUNY Delhi and SUNY Oneonta in neighboring counties. Students are a strong potential transit markets because they often arrive on campus without a car and adapt quickly to public transportation.

Transit-Dependent Populations

The following section details the densities of the four demographic characteristics as collected by the Census that are typically aligned with the primary markets for transit, then creates a composite needs index. Population in Ulster County is heavily concentrated in its eastern half, thus transit-dependent population densities follow closely the overall population density picture. The individual markets highlighted include older adults, persons with disabilities, persons with low income, and households without a vehicle. These markets are defined as follows by the Census:

- **Older Adults** - Over age 65

- **Persons with Disabilities** - Any person over the age of 5 with a disability as determined by the Census questionnaire
- **Persons with Low Income** - Defined as a 150% of the poverty guideline based on household size. This is computed by the Census. Background data can be found at <http://aspe.hhs.gov/poverty/11poverty.shtml>
- **Households without a vehicle** - Household responding that they have zero vehicles available

The following chart (Figure 2-6) compares changes in these population sizes in Ulster County and New York State by comparing Census 2000 data to the American Community Survey estimates collected over the five-year period of 2005-2009. The "population size analyzed" column refers to the total population assessed for each demographic category. For example, persons with disabilities is calculated only for people age 5 and above, not the whole population. Vehicle ownership is calculated for each household. As the table shows, older adults is the only demographic group that increased in size from 2000 to the 2005-2009 estimates. At the state level, persons with disabilities declined; information at a smaller level is not available.

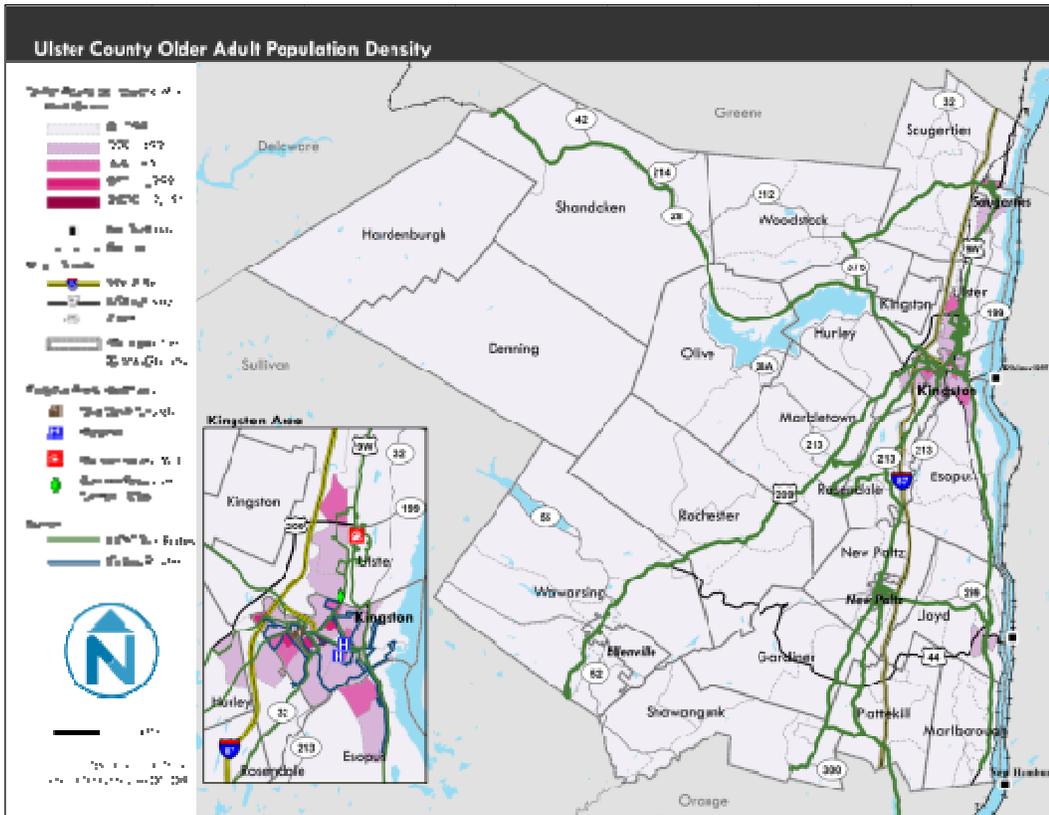
Figure 2-6 Changes in Transit-Dependent Populations for Ulster County

Transit Market	Geography	Census 2000			American Community Survey, 2005-2009			
		Population Size Analyzed	Number in Transit Market	% of Population	Population Size Analyzed	Number in Transit Market	% of Population	% Change
Older Adults	Ulster County	177,749	23,677	13.3%	181,510	25,086	13.8%	6.0%
	New York State	18,976,457	2,450,697	12.9%	19,423,896	2,560,705	13.2%	4.5%
Persons with Low Income	Ulster County	169,367	32,821	19.4%	173,860	32,368	18.6%	-1.4%
	New York State	18,449,899	4,178,786	22.6%	18,892,662	4,144,877	21.9%	-0.8%
Households without a Vehicle	Ulster County	67,499	5,706	8.5%	69,867	4,927	7.1%	-13.7%
	New York State	7,056,860	2,092,756	29.7%	7,137,013	2,017,735	28.3%	-3.6%
Persons with Disabilities	Ulster County	162,681	30,697	18.9%	NA			NA
	New York State	17,464,264	3,606,147	20.6%	19,264,374	2,125,370	11.0%	-41.1%

Source: American Community Survey 2005-2009; Census 2000 Summary File 3

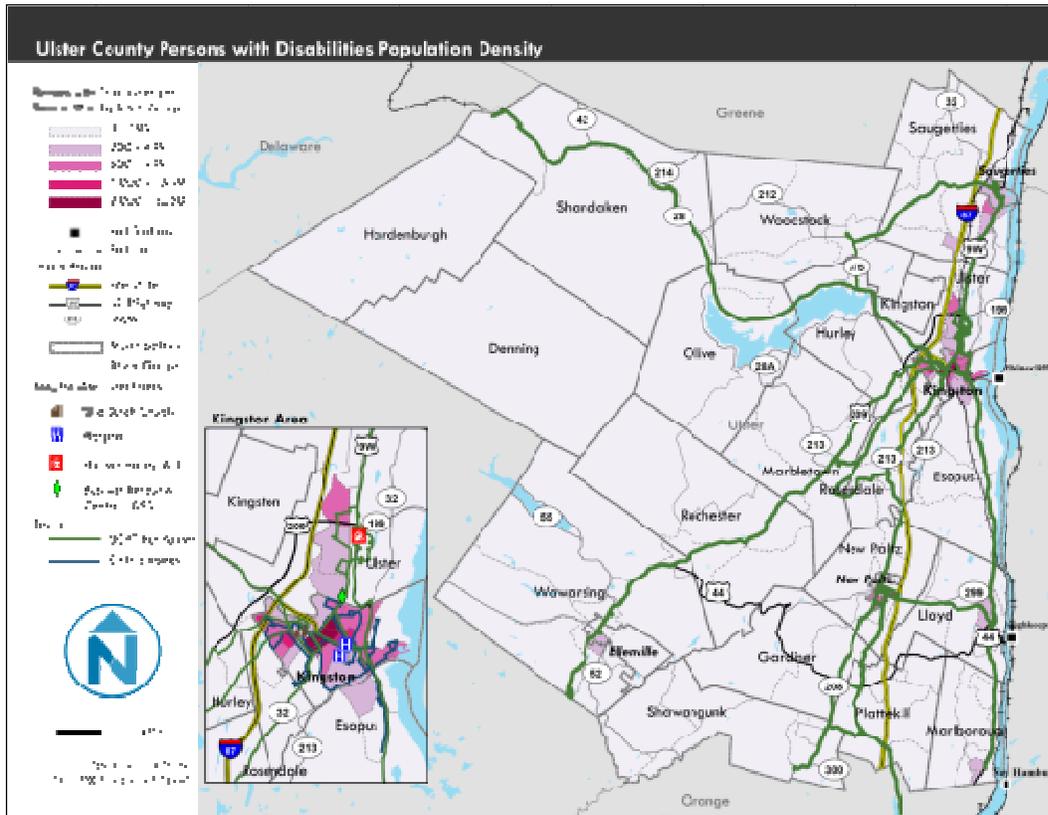
The following map series shows the density of transit-dependent populations by block group.

Figure 2-7 Older Adults



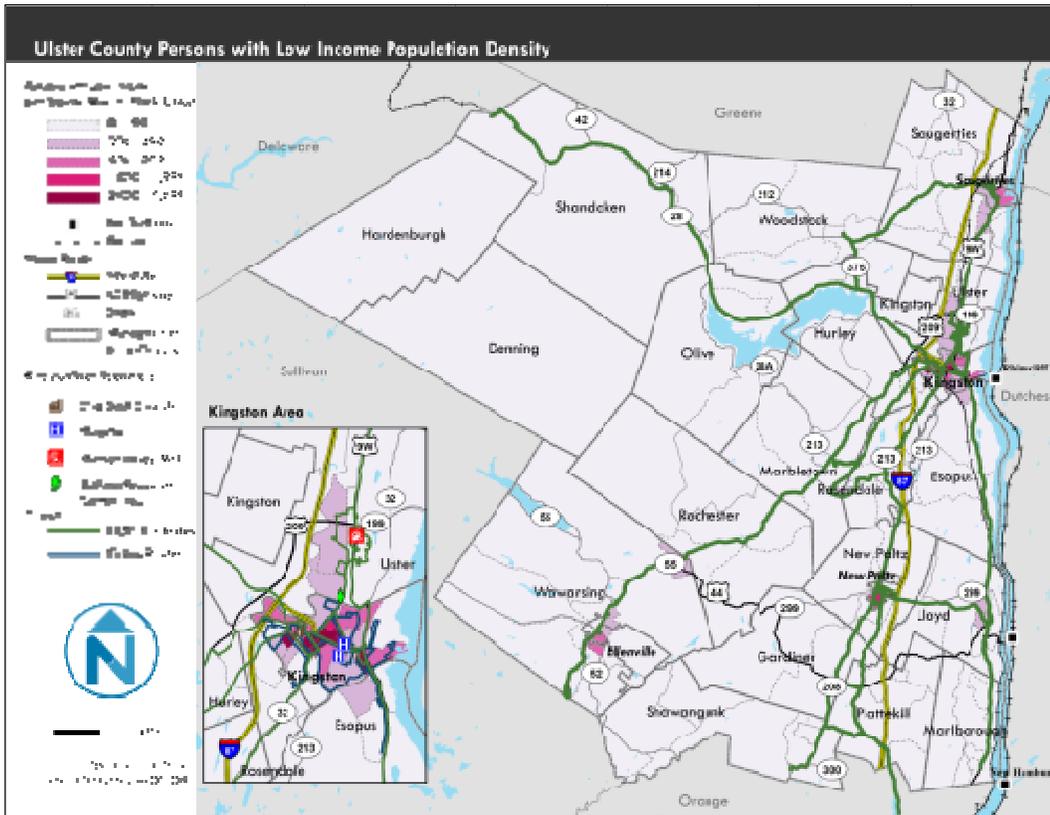
The vast majority of older adults live in the City of Kingston (Figure 2-7), just outside the city in the Albany Avenue (Ulster) corridor, or in the Villages of Saugerties and New Paltz. The medium-high density of seniors in the Town of Lloyd represents part of Highland. Saugerties South also has a significant number of older adult residents. In the Kingston area, portions of Lake Katrine (just north of Route 199) and Port Ewen (south of Kingston) have numerous senior residents. In the City of Kingston, older adults concentrate just west of the Thruway (location of Stony Run apartments), and in the area generally bounded by Lucas Avenue/St. James Place, Broadway, Henry Street/Pearl Street, and the western city limit. The block group of Albany Avenue, Foxhall Avenue, and Smith Avenue is also home to many seniors.

Figure 2-8 Persons with Disabilities



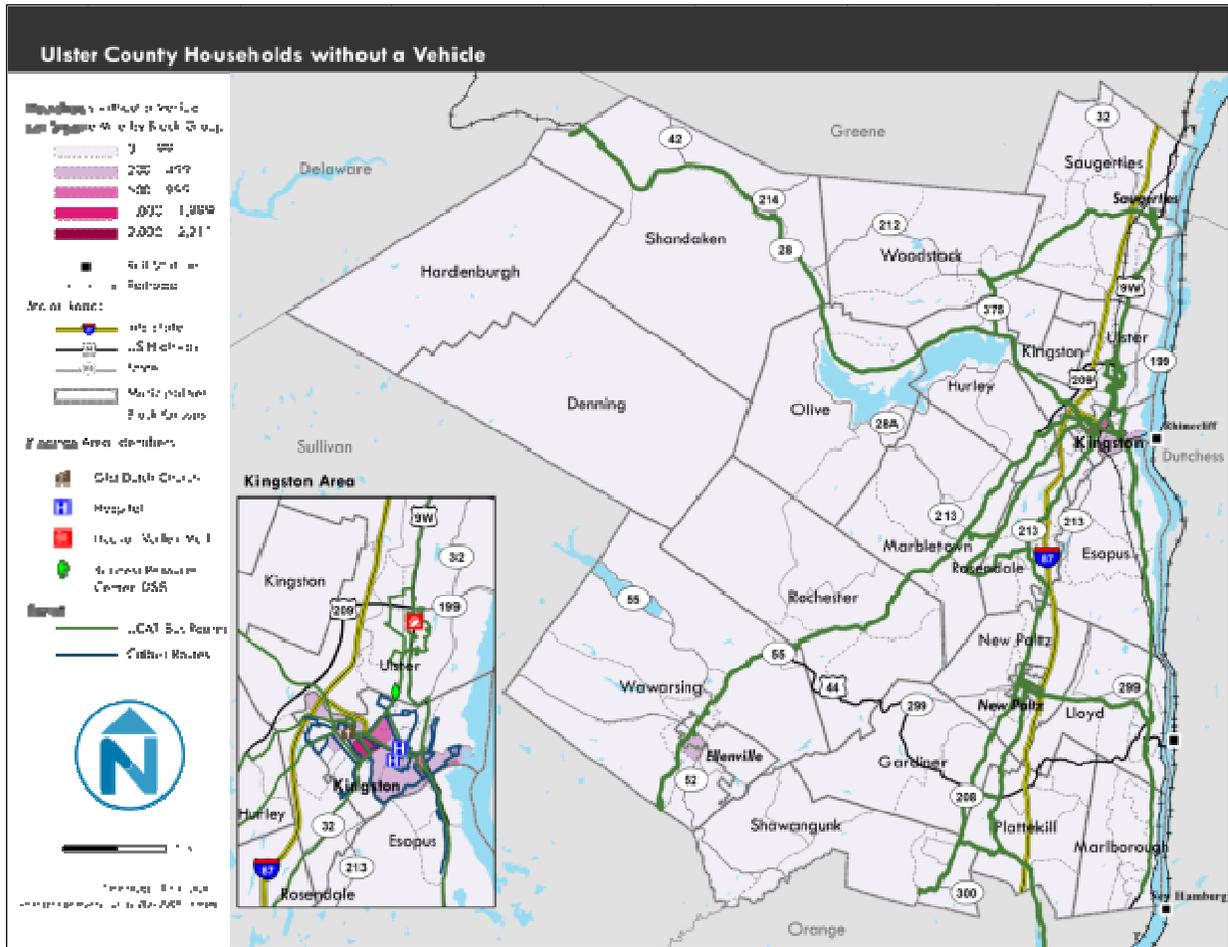
Similar to older adults, concentrations of persons with disabilities (Figure 2-8) live in Saugerties and Saugerties South, a portion of Lake Katrine, along the Ulster Avenue corridor, in the City of Kingston, and in the Village of New Paltz. Medium-low densities are seen in Marlboro, Highland, and a block group on the Village of Ellenville border. All five of the highest-density block groups of persons with disabilities are in the City of Kingston, and they are all contiguous. This concentration of residents live in the area bounded by Albany Avenue/St. James Street, Washington Avenue, Greenkill Avenue, and Foxhall Avenue.

Figure 2-9 Persons with Low Income



Although the older adult population (Figure 2-7) has grown the most in Ulster County, the densities of persons with low income are by far the highest of all four demographics studied. Figure 2-9 shows very concentrated densities of people with low income in New Paltz and Kingston. In the City of Kingston, the low income population appears in the same areas as older adults and persons with disabilities, which includes areas near and in downtown Kingston.

Figure 2-10 Households Without a Vehicle



The number of households without a vehicle (Figure 2-10) decreased 1.4% from 2000 to 2005/2009. In many block groups, every household has at least one vehicle. The only places with any concentrations of this population are in Ellenville, New Paltz, and Kingston.

Transit Dependency Index

The transit dependency index represents the highest concentration of need based on the densities of the four target populations. To calculate this, the densities of potential transit riders per square mile was divided into five categories and given a score of 1 through 5 with 1 representing low need and 5 representing highest need (Figure 2-11). The categories were based upon the overall range in values across all populations and consideration of densities that support transit.

Figure 2-11 Transit Dependency Scoring

Target Population per Square Mile	Transit Need	Score
0-199	Low	1
200-430	Medium-Low	2
431-999	Medium	3
1,000-1,999	Medium-High	4
2,000 and Higher	High	5

Each block group and Census-Designated Place was given a score of 1-5 for each population subgroup. These scores were totaled to calculate an overall transit needs index. Since there are four population groups, the highest needs score possible is 20.

Citibus and UCAT serve very different markets. Citibus transports an urban clientele living at higher population densities, while the mission of UCAT is to provide county-wide transit inclusive of more rural communities. Therefore, the transit dependency analysis focuses on each market separately- the Kingston/Ulster area, and then the county exclusive of Kingston. This is just one level of analysis used for service planning, and will be supplemented with further investigation of potential transit destinations and activity centers. Figure 2-13 below shows the transit dependency index for the Kingston area. The high-needs block groups all either have a route running through them or along their border.

Figure 2-12 Transit Dependency Index - Kingston

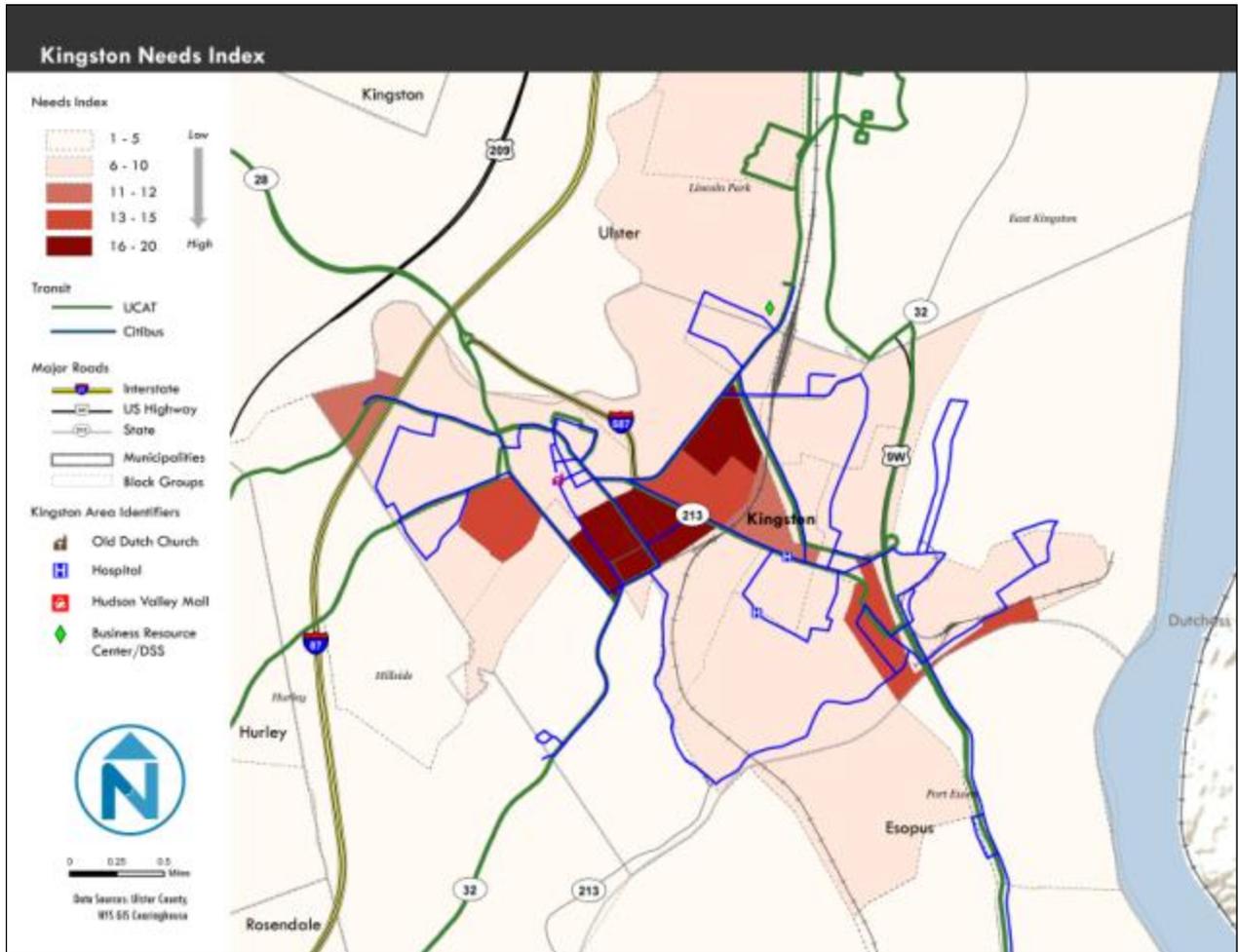
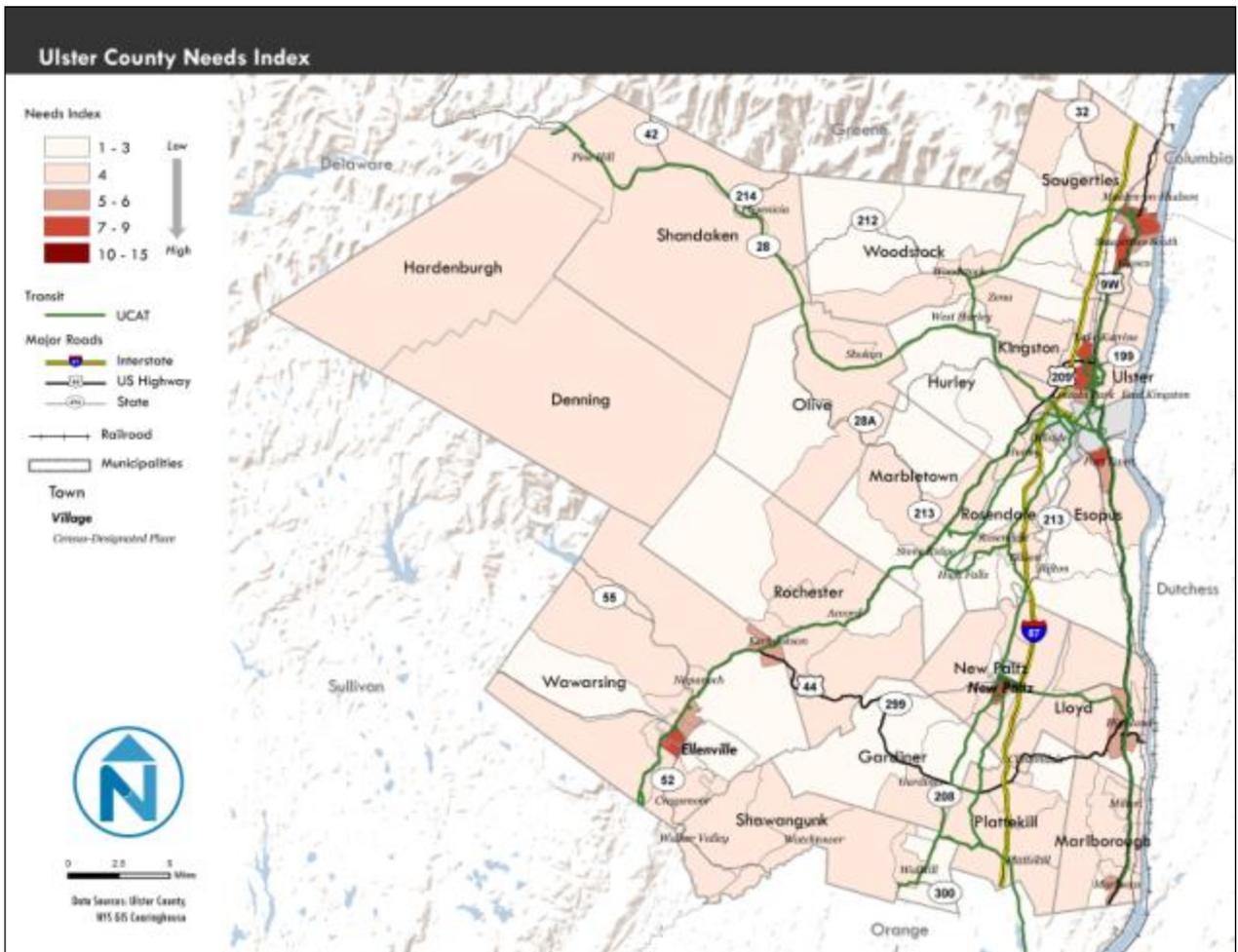


Figure 2-13 below shows the areas in the county with concentrations of transit-dependent populations. High-need places include the Census-Designated Places in Saugerties, the Lake Katrine/Ulster Avenue corridor, Port Ewen, the Village of New Paltz, Ellenville and Napanoch, Kerhonkson, Highland, and Marlboro. A link that may be worth exploring is between Ellenville and New Paltz, which is the most visible east-west link between high-need areas that is missing in the transit system. Another east-west link that may be viable runs along the southern side of the county, between Ellenville, Shawangunk, Plattekill, and Marlboro. A potential north-south medium-low needs link lies between Shokan, through Olive, and down to Rochester and Accord.

Figure 2-13 Transit Dependency Index - Ulster County



Destinations & Activity Centers

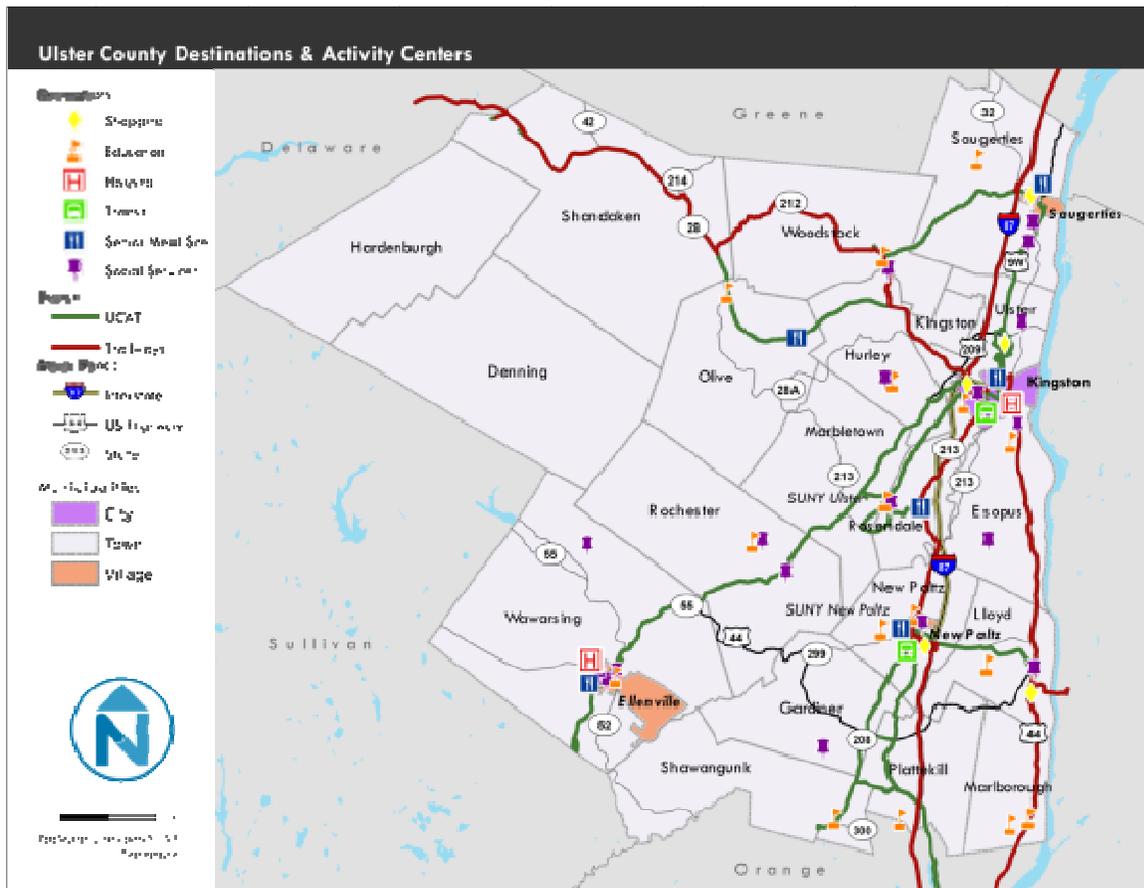
With the exception of parks and seasonal resorts, most major destinations in Ulster County are concentrated along a north-south corridor of highways and population centers within the Hudson River Corridor. Destinations and activity centers are locations that are good candidates for transit and include the following:

- Social services
- Medical services
- Senior centers & senior meal sites
- Shopping - grocery stores, malls and major retailers
- Education sites (SUNY and BOCES)
- Waterfronts
- Resorts
- Arts and Cultural Venues

As the Figure 2-14 shows, transit services cover the main corridors where trip destinations and activity centers are located in the eastern portion of Ulster County. Two other key corridors

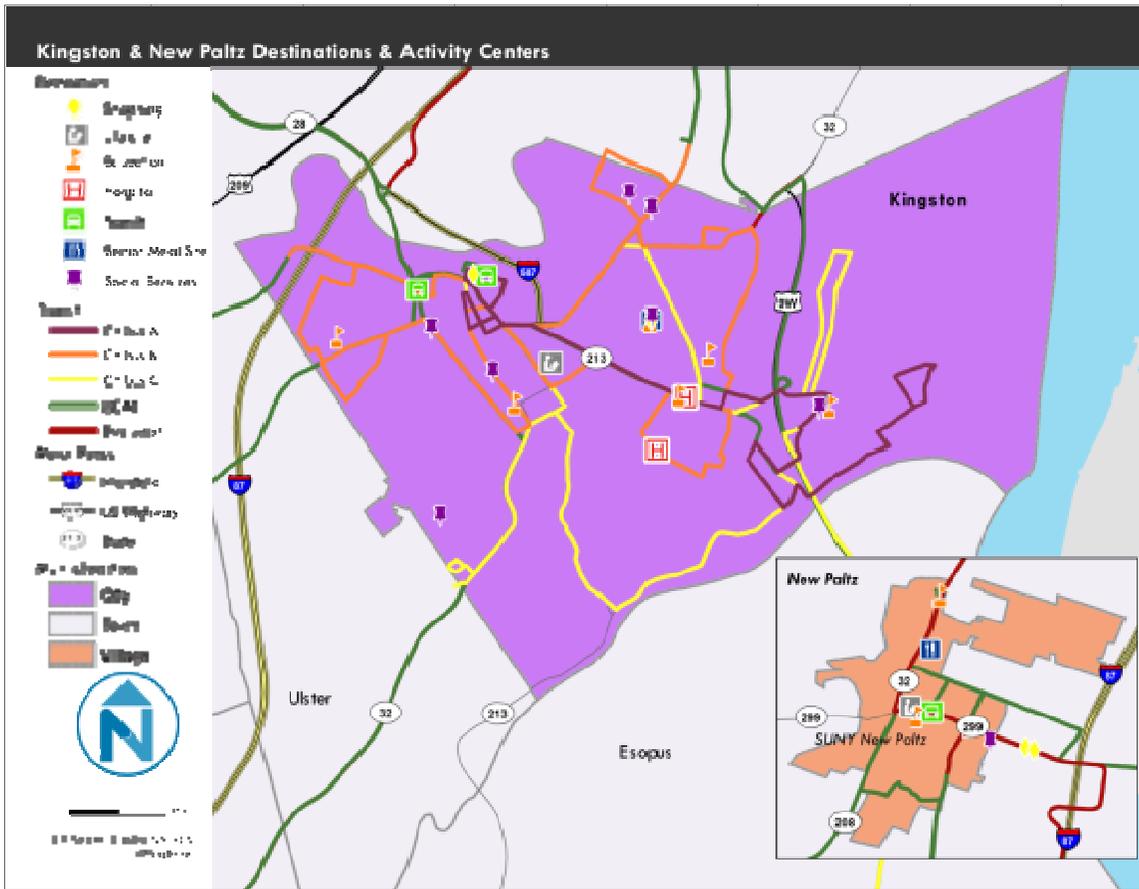
include the connection southwest to Ellenville and the route to Pine Hill along the northern portion of the county. A key destination for UCAT is SUNY Ulster in Stone Ridge. The campus is located in the heart of Ulster County and acts as a significant center of employment, student activity and place of assembly for county residents. The campus is not located within short distance of any major Ulster County population center, nor does it have on-campus housing. Travel to this important activity center is therefore auto-dependent, making transit service all the more important in an effort to better serve both employees, students and residents alike. Overall, most major destinations and activity centers in Ulster County are served by a transit route.

Figure 2-14 Destinations & Activity Centers



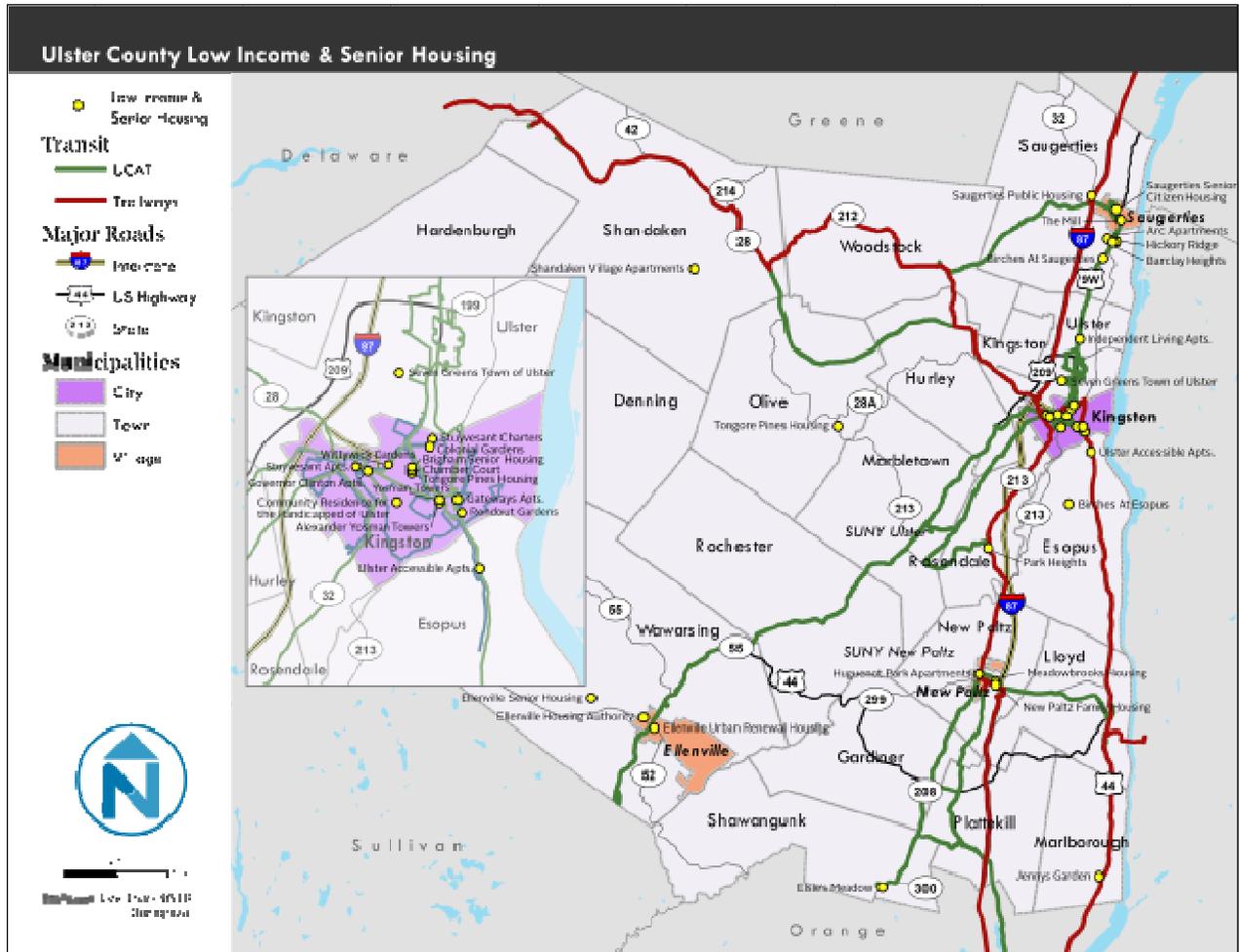
In the City of Kingston, bus service intersects the Trailways Station and Kingston Plaza Hub, which is also a major shopping destination. Other major destinations, such as the hospitals (Kingston Hospital and Benedictine Hospital), library, schools and social services are all located within a 5 to 15 minute walk of an existing bus route. As Figure 2-15 shows, destinations in New Paltz are located along Main Street and major intersecting roads. Transit service covers this activity center, providing service to the SUNY New Paltz campus, Trailways station, library, shopping centers and New Paltz Community Center, a senior meal site.

Figure 2-15 Destinations & Activity Centers in Kingston and New Paltz



As low income and senior housing facilities serve as origin points for many transit trips, most are conveniently located in Ulster County's village centers, Kingston/Ulster, New Paltz, Saugerties and Ellenville. However, not all housing facilities are located close to transit service. As Figure 2-16 shows, The Birches at Esopus, Shandaken Village Apartments, Ellenville Senior Housing and complexes in Lloyd and Marlborough are in suburban locations and are served by UCAT regular or on-request routes.

Figure 2-16 Low Income and Senior Housing



Employment

There are 96,144 persons living in Ulster County who are in the labor force (age 16 and over), of which 58,171 were employed in 2010. The county enjoys a median household income of \$57,485, slightly higher than the state's median of \$55,233. Understanding the commuting patterns in and around Ulster County, as well as the locations of major employers in the region, can help inform the transit development process. As shown in Figure 2-17, the number of people employed in Ulster County has decreased over time. Major employment sectors in Ulster County are state and local government (24%), health care and social assistance (15%), retail trade (15%), and accommodation and food services (10%).

Figure 2-17 Total Employed Persons, Ulster County

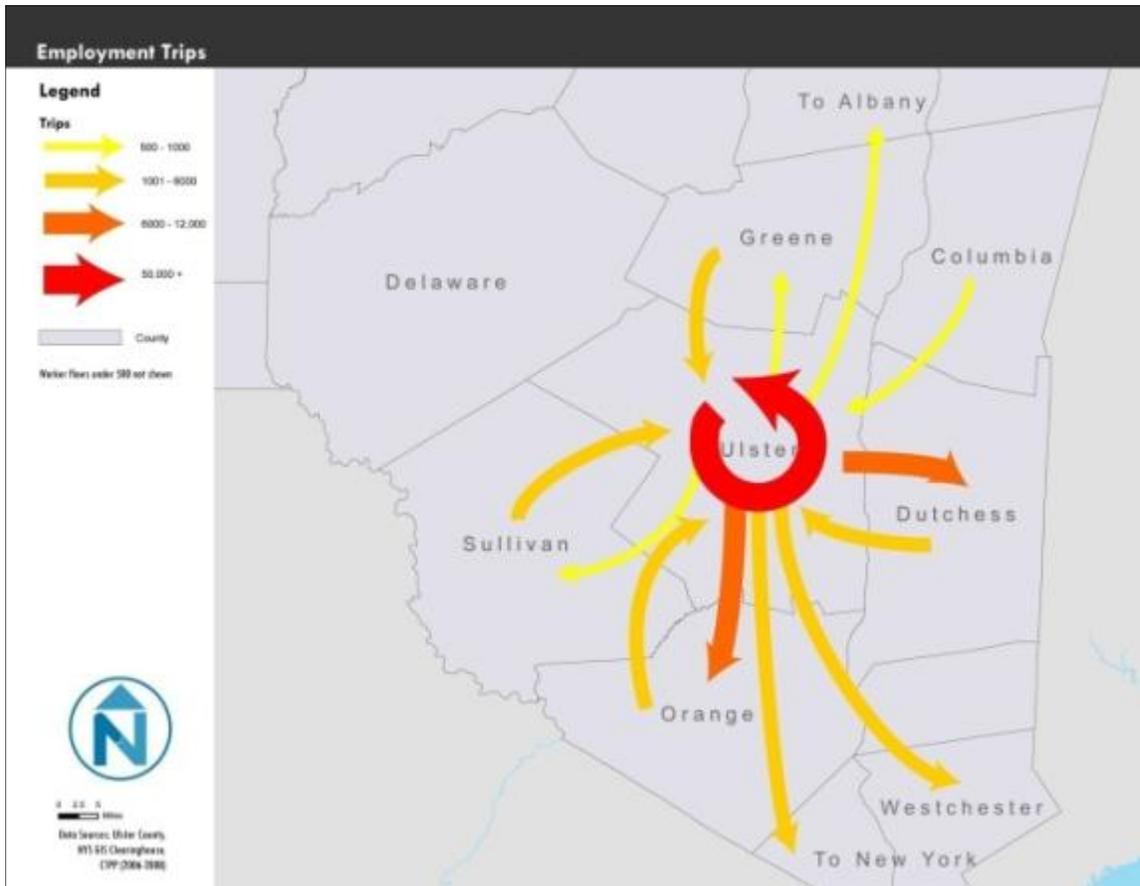
Year	2000	2005	% Change	2010	% Change
Total Employed	61,890	61,678	-0.3%	58,171	-5.7%

Source: New York State Department of Labor, <http://www.labor.ny.gov/stats/lsqcew.shtml>

Figure 2-18 shows county-to-county commuter trends into and out of Ulster County.⁴

A majority of the workforce is employed within the county, but over 30% of residents work outside the county with substantial numbers of these working in Dutchess and Orange Counties. Others have longer daily commutes to New York City and Westchester and are more likely to utilize transit services.

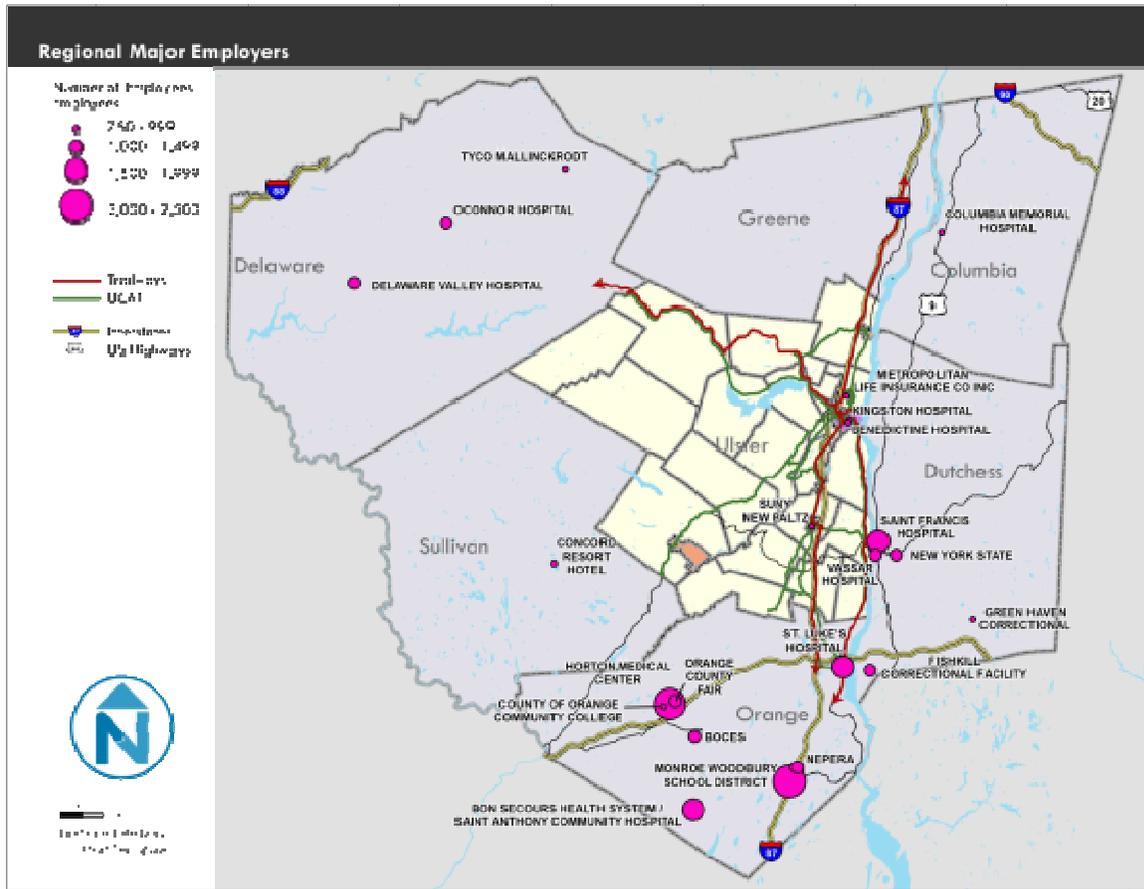
Figure 2-18 Commuting Patterns



Regional travel demand often reflects large employers which tend to attract both employees and customers from a wide geographic area. Most of the regional major employers (750+ employees) are located outside of Ulster County, in Orange and Dutchess counties (Figure 2-19); however, many of these major employers are a short distance from Ulster County. Within Ulster County the major employers include SUNY New Paltz in New Paltz and Kingston and Benedictine Hospitals, which are located in Kingston.

⁴ Journey to work flow data from Census Transportation Planning Products (CTPP) is currently based on 2006-2008 (3-year ACS data) and only available for geographies with populations of 20,000 or more, including states, counties and places. Within Ulster County, place data is only available for the City of Kingston with a high margin of error. As a result, place data was discarded and county data was utilized to provide a more generalized, but accurate, understanding of worker flows.

Figure 2-19 Regional Employers with 750+ Employees



Source: BLAT data 2008⁵

Figure 2-20 shows major employers in Ulster County. This figure combines online research and 2009 data from the NYS Department of Labor. Where available, the number of employees is also shown. The accompanying table in Figure 2-21 lists the names of these major employers.

Most of the major employers have at least one UCAT or Citibus route available. Those that are not served by transit include: the Minnewaska Hospitality Corp., Community Products LLC, Wood Join Co., and Gateway Community Industries (New Paltz location). While data is not available for the number of employees at Gateway Community Industries, there are 750 employees at the other three major employers who do not have access to transit. The third largest employer, Orange-Ulster BOCES, is also not shown on Figure 2-20 because the main campus is in Goshen, NY, which is in Orange County. The Orange-Ulster BOCES serves only a small sliver of eastern Ulster County; the rest of Ulster County is served by the Ulster County BOCES.⁶

⁵ The Business Location Analysis Tool (BLAT) is an establishment database compiled from a variety of sources, including public lists and credit-related information. Since BLAT data includes multiple sources who report employment at different intervals and in different ways, it is not uncommon to find inaccuracies in the data; however, it is the most comprehensive data available for employment at the regional level.

⁶ A map of BOCES coverage for New York State can be found at http://www.boces.org/wps/portal/BOCESofNYS!ut/p/c/1/04_SB8K8xLLM9MSSzPy8xBz9CP0os3gLA1dXN4NgfwsLE3dzS18XJ0cXAWgAykdipsh5PHr9vPIz03VL8iNKAcAjPUUJg!!/d12/d1/L2dJQSEvUUt3QS9ZQnB3LzZfODBFUYwU084ODRHnzINREJBRDAwMDAwMDA!/

Figure 2-20 Ulster County Major Employers

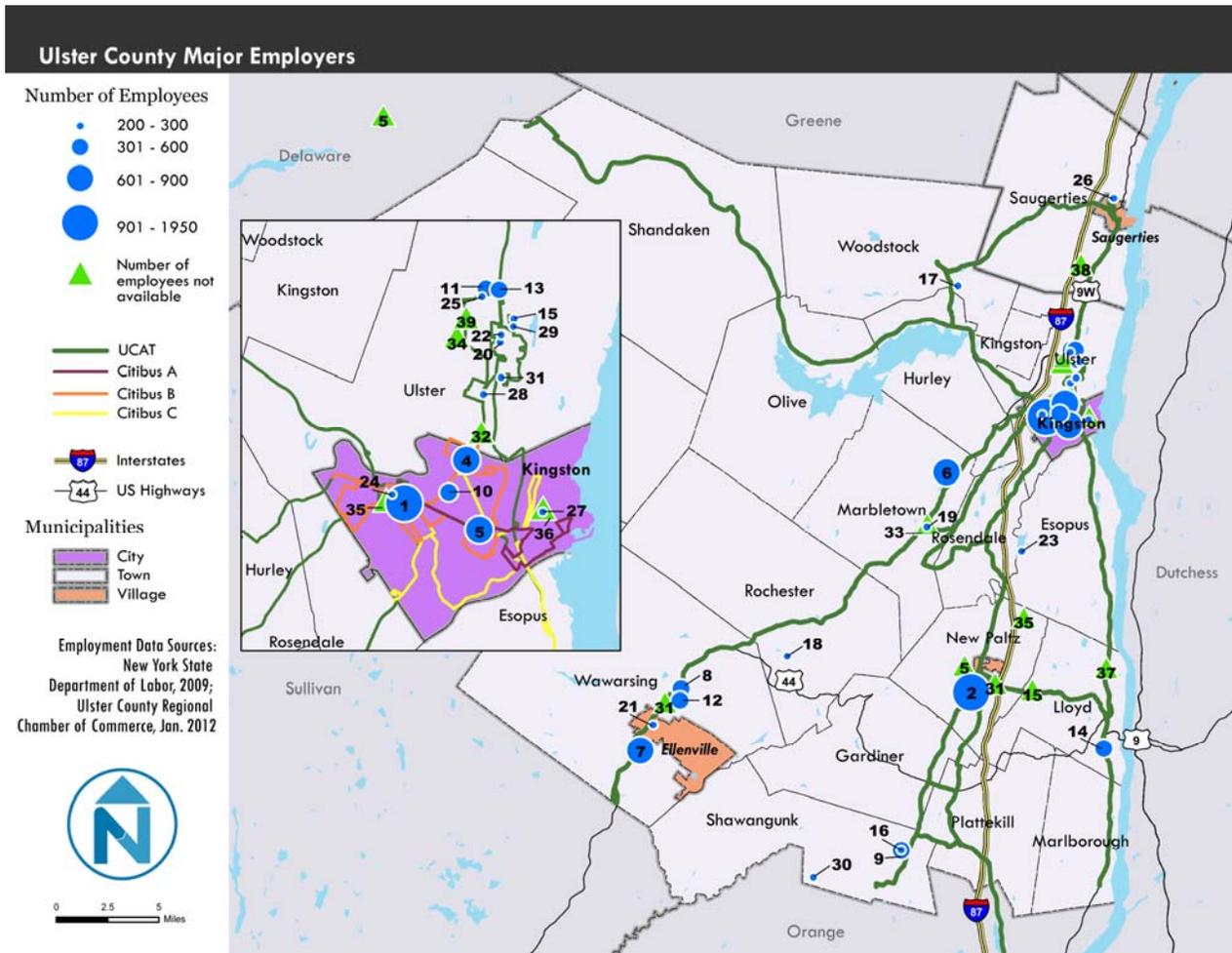


Figure 2-21 Ulster County Major Employers

Map Label	Name	Town	# Employees	Sector
1	Ulster County	Kingston	1942	Government
2	State University of New York at New Paltz	New Paltz	1520	Educational Services
3	Orange-Ulster BOCES	Goshen	900	Educational Services
4	Ulster-Greene ARC	Kingston	890	Social Services
5	Kingston Hospital	Kingston	800	Health Services
5	Kingston Hospital - Woodland Pond	New Paltz	N/A	Health Services
5	Kingston Hospital - Margaretville	Margaretville	N/A	Health Services
6	Benedictine Hospital	Kingston	726	Health Services
7	Nevele Hotel LLC	Ellenville	700	Hotels, Lodging
8	Eastern Correctional Facility	Napanoch	600	Prison
9	Shawangunk Correctional Facility	Wallkill	525	Prison
10	Jay's Detailing & Auto Sales	Kingston	500	Business
11	Northeast Center For Special Care	Lake Katrine	500	Health Services
12	Ulster Correctional Facility	Napanoch	400	Prison
13	Adams Fairacre Farms	Lake Katrine	400	Grocery
14	Continental Wingate Co., Inc.	Highland	305	Financial, Insurance, Real Estate
15	Lowe's Home Centers, Inc.	Kingston	300	Retail
15	Lowe's Home Centers, Inc.	Highland	N/A	Retail
16	Wallkill Correctional Facility	Wallkill	300	Prison
17	Ametek Rotron, Inc.	Woodstock	300	Manufacturing
18	Minnewaska Hospitality Corp.	Kerhonkson	300	Hotels, Lodging
19	Ulster County Community College	Stone Ridge	300	Educational Services
20	Hannaford Brothers Co.	Kingston	300	Grocery
21	Ellenville Central School District	Ellenville	265	Educational Services
22	Macy's Retail Holdings, Inc.	Kingston	250	Retail
23	Community Products LLC	Rifton	250	Retail
24	Kingston City School District	Kingston	250	Educational Services
25	GHI HMO Select, Inc.	Lake Katrine	238	Financial, Insurance, Real Estate
26	Saugerties Central Schools	Saugerties	211	Educational Services
27	Huck International, Inc.	Kingston	203	Manufacturing
28	Ulster Home Care, Inc.	Kingston	200	Health Services
29	Wal-Mart Stores, Inc.	Kingston	200	Retail
30	Wood Join Co.	Wallkill	200	Business
31	Shop-Rite Supermarkets, Inc.	Kingston	200	Grocery
31	Shop-Rite Supermarkets, Inc.	New Paltz	N/A	Grocery
31	Shop-Rite Supermarkets, Inc.	Ellenville	N/A	Grocery
32	SUNY Ulster - Kingston	Kingston	N/A	Educational Services
33	SUNY Ulster - Stone Ridge	Stone Ridge	N/A	Educational Services
34	Uniprise/United Health Care	Kingston	N/A	Financial, Insurance, Real Estate
35	Gateway Community Industries	Kingston	N/A	Service (general)
35	Gateway Community Industries	New Paltz	N/A	Service (general)
36	Alcoa Fastening Systems	Kingston	N/A	Manufacturing
37	Zumtobel-Staff Lighting	Highland	N/A	Manufacturing
38	Ceres Technologies, Inc.	Saugerties	N/A	Manufacturing
39	Hunter Panels	Kingston	N/A	Manufacturing

Source: New York State Department of Labor, 2009; Ulster County Regional Chamber of Commerce, Jan. 2012

Chapter 3. Overview of Transit Services

Background

Existing transit services in Ulster County consist of Kingston Citibus, which focuses on the City of Kingston and the Ulster County Area Transit (UCAT), which provides service to greater Ulster County. Both systems generally follow a “coverage model”, meaning the transit services are designed to serve a large geographic area, even if routes have a lower level (i.e. fewer trips) on some routes.

While Ulster County Area Transit (UCAT) and Kingston Citibus are the primary focus of this study, there are other public transportation services in the region, including two inter-city coach services and several human services transportation providers; an overview of these services is included in this chapter.

Kingston Citibus

Kingston Citibus is operated by the City of Kingston and is focused primarily on providing local service within the city limits (see Figure 3-1). A notable exception is service to Port Ewen, which is outside of Kingston but is home to the Ulster Board of Cooperative Educational Services (BOCES), offering adult education and technical training. An additional major destination just outside the city limits, in the Town of Ulster, is the county complex on Development Court off Albany Avenue, which houses the Business Resource Center, Department of Social Services, Office for the Aging, and many other services.

Fixed-Route Service

Three fixed routes (Routes A, B, and C) make up the Citibus network (Figure 3-1). Service is available on weekdays from roughly 6:30 am to 7:30 pm, and Saturdays from 9:30 am to roughly 5:00 pm (see Figure 3-3). All routes serve Kingston Plaza, which is the primary transfer point between Citibus routes. Kingston Plaza is also served by most UCAT routes, and thus functions as a regional transfer center as well.

Demand-Responsive Service

As mandated by Federal Law (Americans with Disabilities Act), complementary paratransit service is provided by Kingston Citibus within three quarters of fixed route service for individuals whose disability prevents them from using the fixed-route service. This service is available Monday through Friday, 6:30 am to 7:30 pm, as well as on Saturday from 9:30 am to 5:30 pm. Trips must be scheduled at least a day in advance, and service is limited to pre-registered riders who have passed an eligibility screening.

Fares

Service within Kingston is \$1.00 for a one-way trip, while a one-way trip to or from Port Ewen is \$1.50. Half-fare is allowed for older adults, persons with disabilities, and Medicare card holders. Transfers between Citibus routes are \$0.30. Passengers transferring between a Citibus and a UCAT route must request a transfer slip from their driver, and deposit the transfer slip, plus \$0.50 on the next system bus.

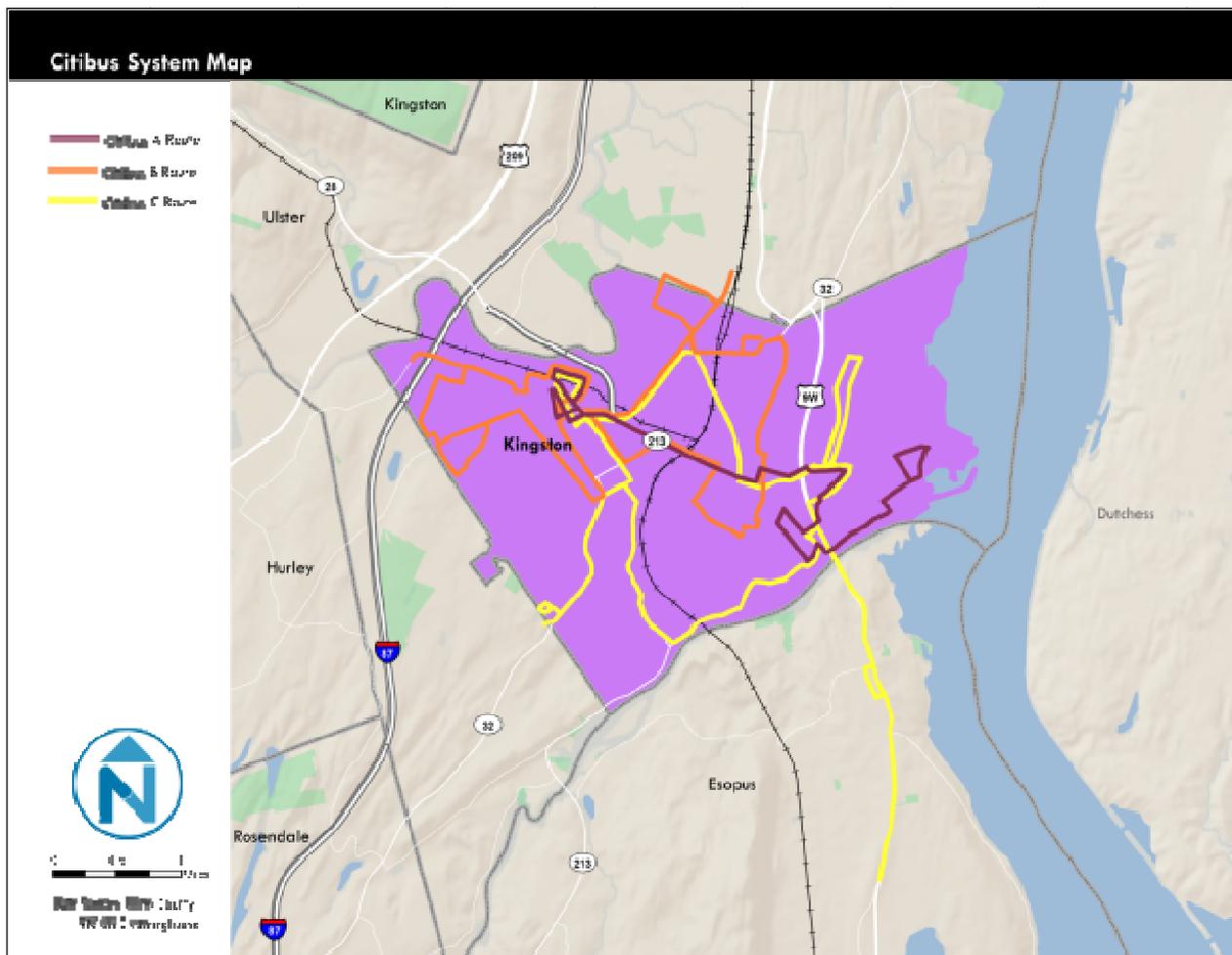
Fleet

The Citibus fleet consists of four 35-foot Gillig buses, two replica trolleys, and two paratransit vans. Three fixed-route buses and two paratransit vans are needed for peak-pull out. The replica trolleys were at one time used for a summer tourist service, but are now used mostly as spare vehicles.

Passenger Amenities

Most on-street Citibus stops are marked with a bus stop sign that includes the letter of the route or routes that serve the stop and the estimated minutes past the hour when the stop is served (although no information is provided on which hours service is available). Off-street stops such as Kingston Plaza or Gateway Community Industries generally do not have bus stop signs. A small number of bus shelters are available throughout the system, but a comprehensive shelter deployment plan does not exist.

Figure 3-1 Citibus Service



Passenger Information

Citibus information is available on the City of Kingston's website, but is located rather deep into the site: <http://www.kingston-ny.gov/content/76/78/787/default.aspx>. A system map and individual route schedules are also available on this site. These are formatted to be printed out on regular letter-size paper, and are provided in the same format on buses, at Kingston City Hall, and at social services locations.

The schedules have a somewhat untraditional format that shows a number of bus stops being served at the same time. The implication is that the stops are in close proximity to each other and will be served at nearly the same time, but there are no instructions to lead customers to this conclusion. Citibus schedules also do not include any information about connecting services.

Ulster County Area Transit (UCAT)

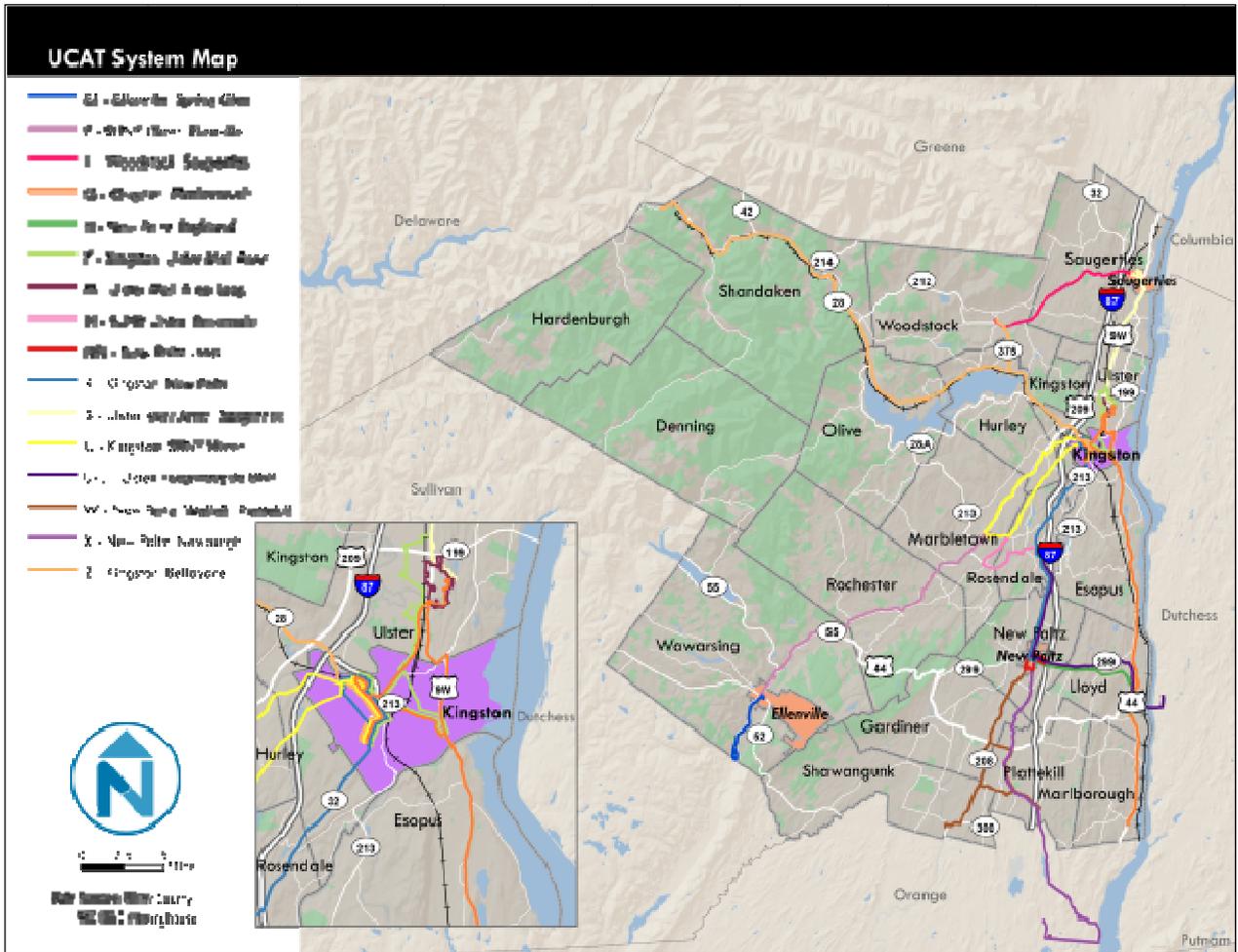
UCAT is operated by Ulster County. Its current schedule has 16 fixed-route bus lines connecting the population centers and major travel corridors of Ulster County (and beyond). Two UCAT routes serve destinations beyond the county's borders: Newburg in Orange County and Poughkeepsie in Dutchess County (Figure 23).

Fixed-Route Service

UCAT currently operates as a "flag-stop" fixed-route system, meaning passengers may board at any location that is safe for the bus to stop along a bus route by flagging down an approaching bus. Similarly, passengers may request to exit the bus anywhere along the route. In the City of Kingston UCAT buses will drop passengers off upon request, but will only pick up passengers at Kingston Plaza and along Albany Avenue (for trips to Ulster Mall).

Other than a circulator service around the Ulster Mall area, most UCAT routes connect at least two municipalities. One exception is the New Paltz Loop, which is fully funded by the Village and Town of New Paltz and the student body and staff of SUNY New Paltz.

Figure 3-2 UCAT Service



Like Citibus, most UCAT routes are designated by letter. However, the letters A, B, and C, which are used for Citibus routes, are not used by UCAT. In addition, two routes (the New Paltz Loop and the Ulster-Poughkeepsie LINK (UPL)) are excluded from the alphabetic naming convention.

While individual UCAT service start and end times depend upon the route, for the fixed-route system as a whole, service begins around 4:55 am and continues until about 10:30 pm, Monday through Friday. There is a wide range of frequencies among the routes (Figure 3-3). Saturday service is limited to the K, S, U, Z, and UPL routes, with an over-all span of service of roughly 7:50 am to 6:15 pm. Sunday service is available year-round on the UPL and during ski season only (November 15th to April 15th) on Route Z.

Figure 3-3 UCAT and Citibus Weekday Service Characteristics

Route Number	Route Name	Begin	End	Daily Trips	Regular Frequency (Y/N)	Peak Headway	Max Headway
UCAT							
LINK	Ulster Poughkeepsie Link	5:03 AM	12:09 AM	42	N	10m	2h 5m
E	SUNY Ulster - Ellenville	5:37 AM	10:05 AM	14	N	60m	3h 30m
E1	Ellenville - Spring Glen	9:10 AM	5:10 PM	4	N/A	7h40m	7h40m
F	Woodstock - Saugerties	10:50 AM	2:55 PM	4	N/A	4h5m	4h5m
G	Kingston - Marlboro	6:30 AM	6:45 PM	4	N/A	10h5m	10h5m
H	New Paltz - Highland	9:15 AM	3:15 PM	6	N	1h30m	3h30m
K	Kingston - Ulster Mall Area	5:20 AM	10:10 PM	30	Y	45m	1h45m
M	Ulster Mall Area	7:00 AM	9:22 PM	22	Y	30m	1h30m
N	SUNY Ulster/Rosendale	8:10 AM	4:30 PM	8	N	1h20m	3h30m
Loop	New Paltz Loop	7:30 AM	10:00 PM	23	Y	30m	1h
R	Kingston/New Paltz	5:00 AM	10:15 PM	22	N	10m	3h30m
S	Ulster Mall/Saugerties	5:50 AM	9:45 PM	28	Y	45m	2h
U	Kingston - SUNY Ulster	5:05 AM	10:30 PM	20	N	1h10m	3h15m
W	New Paltz/Wallkill/Plattekill	6:45 AM	6:40 PM	4	N/A	10h50m	11h
X	New Paltz/Newburgh	5:25 AM	8:30 PM	10	N	2h	5h30m
Z	Kingston/Woodstock/Pine Hill/Belleayre	4:55 AM	8:10 PM	14	N	1h5m	3h30m
CitiBus							
A	A	6:30 AM	7:20 PM	11	Y	1h	2h
B	B	6:30 AM	7:15 PM	11	Y	50m	2h
C	C	6:25 AM	7:15 PM	11	Y	1h	2h

Demand-Responsive Service

In addition to the traditional fixed-route service, UCAT also provides demand-response service in rural areas of Ulster County, with different parts of the county served on different days. For this service, passenger reservations can be made up to one week in advance, but will be accepted up until the day before the trip.

In 2010, UCAT began providing ADA paratransit service. Prior to that, the agency relied on fixed-route trip deviations to meet their ADA requirements. Because of the rural nature of much of the county, the ADA capture zone extends 1.5 miles from each fixed-route bus line, rather than the ¾ mile buffered required by federal law. Reservations for ADA paratransit service must be made at least a day in advance.

Fares

For both fixed-route and rural service, the UCAT fare structure is based on a zonal system, with zones corresponding to municipal boundaries. The base fare for boarding and travel within 1 zone is \$1.00. For each additional zone traveled, the fare increases \$0.25. Bus routes are

generally divided into two or three zones, but depending on the route, there can be as many as five zones.

UCAT does offer discounted bus passes in several forms: unlimited monthly for \$65.00 per month as well as 20 and 40 ride passes that provide a 10% discount from the total amount that would otherwise be paid as fare. In addition, under an agreement between UCAT and the Ulster County Office for Aging, county residents who are 60 years old and older may register to ride free on UCAT's fixed-route or rural service for one roundtrip each week for shopping purposes and two round trips each week for medical appointments. Older adults also have the option of riding UCAT fixed-route service for half fare between 10:00 am and 2:00 pm. Personal care attendants may accompany a qualified rider for free.

The Ulster-Poughkeepsie LINK, which provides connecting service to the MTA Metro-North Railroad at Poughkeepsie Station, has a separate fare structure from other UCAT routes. Depending upon one's boarding location within the route, the fare ranges from \$1.25 to \$2.00 one-way. Frequent travelers can purchase Monthly or Weekly UniTickets, which combine bus and rail fare, at \$483.00 or \$153.75, respectively.

Fleet

UCAT has an active fleet of 24 fixed-route vehicles and four paratransit vans (Figure 3-4). However, some of the fixed-route vehicles are also used for the rural demand-responsive service. In 2010, 16 fixed-route and four paratransit vehicles were required for peak service.

Passenger Amenities

Efforts are underway to install bus stop signs at regularly used stops, but the flag-stop system is expected to remain as well. The new bus stop signs will feature schedule information and route maps as well. Bus shelters are available at a hand-full of locations, and UCAT has a program of providing shelters to on-route property owners that are willing to install and maintain them.

Passenger Information

UCAT route maps, schedules, and general information are available online at the following website: <http://www.co.ulster.ny.us/ucat/>. UCAT also maintains a facebook page, which is used primarily to issue rider alerts regarding service disruptions and detours.

Individual pocket schedules are available for each UCAT route, and can be found on the buses and at the Ulster County Transit Center (operations and maintenance facility). Each pocket schedule also includes a small UCAT system map. The pocket schedules do not show information about connecting services (Citibus, Trailways, etc.).

Figure 3-4 UCAT Fleet

Vehicle ID	Year	Manufacturer	Length	Seats	Service
33	2004	ORION	35	24	Fixed
34	2004	ORION	35	24	Fixed
35	2004	ORION	35	24	Fixed
36	2004	ORION	35	24	Fixed
38	2006	COACH & EQUIPMENT	24	14	Fixed
39	2008	COACH & EQUIPMENT	24	20	Fixed
40	2008	COACH & EQUIPMENT	24	20	Fixed
41	2005	ORION	40	34	Fixed
42	2005	ORION	40	34	Fixed
43	2008	COACH & EQUIPMENT	24	20	Fixed
44	2008	COACH & EQUIPMENT	24	20	Fixed
45	2008	COACH & EQUIPMENT	24	20	Fixed
46	2009	COACH & EQUIPMENT	24	20	Fixed
47	2009	STARCRAFT	24	20	Fixed
51	2009	STARCRAFT	24	20	Fixed
52	2009	STARCRAFT	24	20	Fixed
53	2009	STARCRAFT	24	20	Fixed
54	2009	STARCRAFT	24	20	Fixed
55	2010	ORION	35	32	Fixed
56	2010	ORION	35	32	Fixed
57	2010	ORION	35	32	Fixed
58	2010	ORION	35	32	Fixed
59	2010	ORION	35	32	Fixed
914	2002	THOMAS	30	29	Fixed
48	2009	STARCRAFT	24	20	Paratransit
49	2009	STARCRAFT	24	20	Paratransit
50	2009	STARCRAFT	24	20	Paratransit
S5	2011	Dodge	N/A	5	Paratransit

Private Operators

Ulster County is served by two private inter-city coach operators: Adirondack/Pine Hill Trailways and Coach USA/Shortline. These commuter carrier services are subsidized using both federal and state funds to offset cost and to ensure adequate service within the regions they serve.

Adirondack/Pine Hill Trailways offers "one-seat" service between Kingston and New York City, as well as between Kingston and Albany. The provider also serves Saugerties, Woodstock, Rosendale and New Paltz in Ulster County. Frequencies and hours of service vary for each location. Fares are still generally higher than UCAT trips of comparable length.

Coach USA/Shortline only serves the Village of Ellenville extending along the NYS Rt. 209 corridor to Kerhonkon (on trips to New York City), and also connects to UCAT services in Newburgh, Orange County.

Human Services Transportation Providers

Several specialized transportation services are available in Ulster County to qualified individuals, including older adults, persons with disabilities, and clients of human service programs (see Figure 3-5). It should be noted that two Office for the Aging medical vans, which are available to all seniors who live and require medical transportation within Ulster County, are operated and maintained by UCAT under contract with the Ulster County Office for the Aging.

Figure 3-5 Human Services Transportation Providers

Specialized Transportation	Service Type	Service Area	Operating Hours	Service Features
Always There Home Care	Client Transportation	Ulster County	Monday - Sunday 6:30 - 10:00 am 3:00 - 6:00pm	Service for adults with disabilities aged 60 and older to the Adult Day program Transport Cost paid by consumer
Gateway Industries	Demand Response	Ulster and Dutchess Counties	Monday - Sunday 6:45 am - 4:30 pm	Transportation service for older adults and persons with disabilities 19 and older Transport Cost paid by consumer or Medicaid
Resource Center for Accessible Living	Purchase of Service from taxi providers and staff transport	Ulster County	Monday - Friday 9:00 am - 4:30 pm	Provides a variety of services for older adults and persons with disabilities of all ages; Generally offers transportation through taxi service, but staff members sometimes drive consumers as needed
Ulster - Greene ARC	Fixed Route Demand Response	Ulster and Greene Counties	Monday - Sunday 6:00 am - 5:30 pm	Transportation services for older adults and persons with disabilities aged 21 and older Transport cost paid by donations, municipal, state, and federal funds
SUNY - Ulster RSVP Neighbor-to-Nighbor Program	Demand Response	Ulster County	Depends upon available volunteers	Volunteers assist in determining transportation options for older adults with disabilities or other health problems; Volunteers drivers provide transportation services
Ulster County Office for the Aging	Demand Response	Ulster County	Monday - Friday Daylight hours	Operated by UCAT and available to all seniors who live and require medical transportation within Ulster County
Ulster County Department of Social Services	Demand Response	Ulster and surrounding Counties; service out of state	Monday - Sunday 5:00 am - 9:00 pm	Transportation service for any persons with disabilities Transport costs paid by local, state, and federal government funds
Ulster County Mental Health Department	Client Transportation	Ulster County	Flexible	Transportation services primarily for case work by clinical staff to consumers' homes
Ulster County Veteran's Agency	Client Transportation	Ulster County	Monday - Friday 7:30 am - 5:00 pm	Transportation to and from VA hospitals for veterans

Chapter 4. System Performance

Ridership and Productivity

The performance of existing UCAT and Citibus services provides insight into what works in Ulster County, in terms of service design, and what doesn't. As a first step, ridership trends are a good indicator of system performance, but it is also critical to understand system productivity, or how efficiently the systems generate ridership. Typical productivity metrics include the following:

- **Passengers per Revenue Hour and Revenue Mile.** These indicators provide a measure of service productivity – that is, how much ridership is being generated in relation to the amount of service available. These indicators track closely to one-another, and show the extent to which, a transit system is getting the greatest ridership return on its resource investment.
- **Operating Cost per Passenger.** This indicator measures cost effectiveness by assessing total operating costs over consumption of service (total ridership).
- **Farebox Recovery Ratio and Average Subsidy per Passenger.** These indicators also measure cost effectiveness but are often better understood by policy makers who want to know how much each passenger is being subsidized. The farebox recovery ratio is defined as the total fare revenue divided by the total operating costs, while the average subsidy per passenger is a measure of the gap between the average operating cost per passenger and the average fare per passenger.

These metrics are tracked by agencies throughout the transit industry, in part because there is a Federal requirement for any agency receiving FTA grant funding and operating more than nine vehicles to report the statistics annually to the National Transit Database (NTD). This practice allows transit agencies to compare their system performance and productivity against their peers.

Although it is not a requirement, many transit systems also track productivity metrics at the route level. This allows an agency to identify individual routes that are performing above or below the system average or a set of Board-defined performance standards. By recognizing the under-performers or over-performers, informed decisions can be made regarding resource allocation.

Historically, neither Citibus nor UCAT have tracked productivity metrics at the route level. Citibus operates only 9 vehicles, and is thus not required to report to NTD. UCAT does report to NTD, but has traditionally collected data by driver assignment blocks rather than by route (Figure 4-1).

In November 2011, UCAT began testing a new electronic data collection system. This system uses GPS-enabled mobile data terminals to track passenger boarding and alighting activity at the stop level. In later phases of this study, Nelson/Nygaard staff expects to utilize this data to analyze the performance of UCAT service at the route and stop level. Nelson/Nygaard staff is also collecting route and stop-level data for Citibus routes. This is being accomplished through a 100% survey of Citibus trips. Over the course of several days, surveyors will ride every trip on the Citibus schedule and record where and when passengers board and alight. With this data, project staff will be able to compile a “virtual day” of Citibus ridership, and analyze the ridership patterns that emerge.

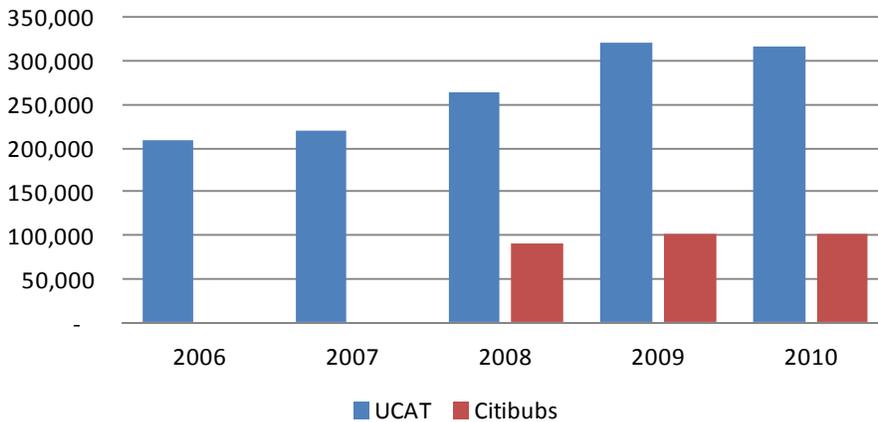
Figure 4-1 2010 UCAT Fixed-Route Ridership⁷ and Revenue Hours

UCAT Fixed-Route Blocks	Component Routes	Annual Weekday Passengers	Annual Weekday Revenue Hours
E Route	E, E1	24,777	2,238
E pm Route	U, E, E1	16,387	1,830
G am/pm Route	G	2,059	1,283
K Route	K, S	20,989	2,289
K pm Route	K, S	6,889	1,358
S Route	K, S	22,015	2,275
S pm Route	K, S	9,639	1,872
R Route	R, H	13,020	2,296
U Route	U, N	26,533	2,247
W am Route	W	9,323	1,824
W pm Route	W	2,039	658
X am/pm Route	X	21,071	3,192
Z am/pm Route	Z	14,419	2,411
Z Route	Z	11,384	2,251
M Route	M	2,393	2,465
NPL	NPL	38,278	3,958
UPL	UPL	42,532	6,773

The differences in data collecting and reporting requirements of UCAT and Citibus, make direct comparisons of the two systems a challenge. In general, Citibus tracks fewer operating statistics than UCAT. Thus, in this chapter, some graphs and tables will show less data or no data for Citibus.

Figure 4-2 Transit Ridership

Annual Unlinked Passenger Trips
 (Source: NTD and STOA)



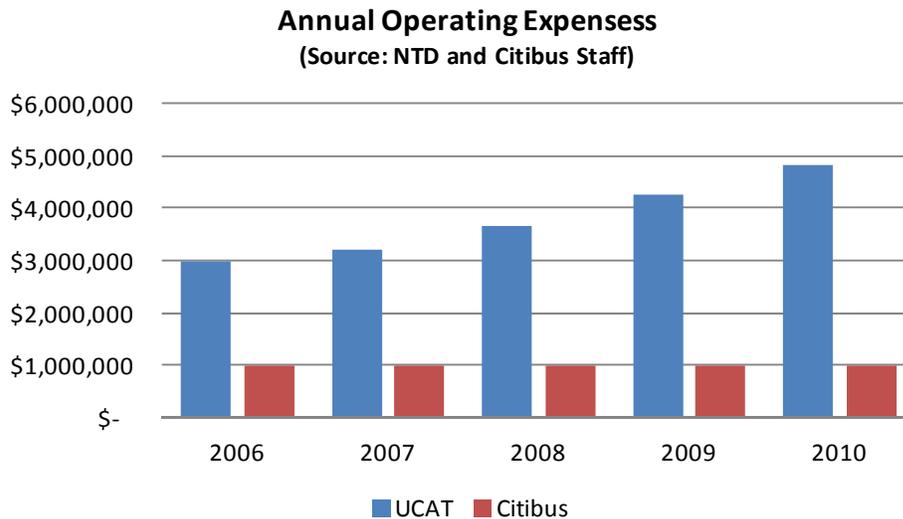
⁷ Passenger counts include paying passengers only. Special needs assistants and other passengers riding free of charge are not shown.

Source: UCAT and Citibus data adapted by Nelson\Nygaard

Ridership on the UCAT services grew consistently between 2006 and 2009, after which it leveled off slightly (Figure 4-2). Citibus ridership has remained fairly flat over the past three years⁸, and according to previous studies, is down significantly from the first half of the decade⁹.

At the system level, UCAT's ridership growth in recent years has been facilitated by increased investment in the system. Between 2006 and 2010, UCAT's operating budget increased by 62% (Figure 4-3), which has allowed for a substantial increase in the amount of service provided (measured by vehicle revenue hours and revenue miles). According to Citibus staff, the agency's operating budget has stood at roughly \$1 million for the past several years.

Figure 4-3 Operating Budget



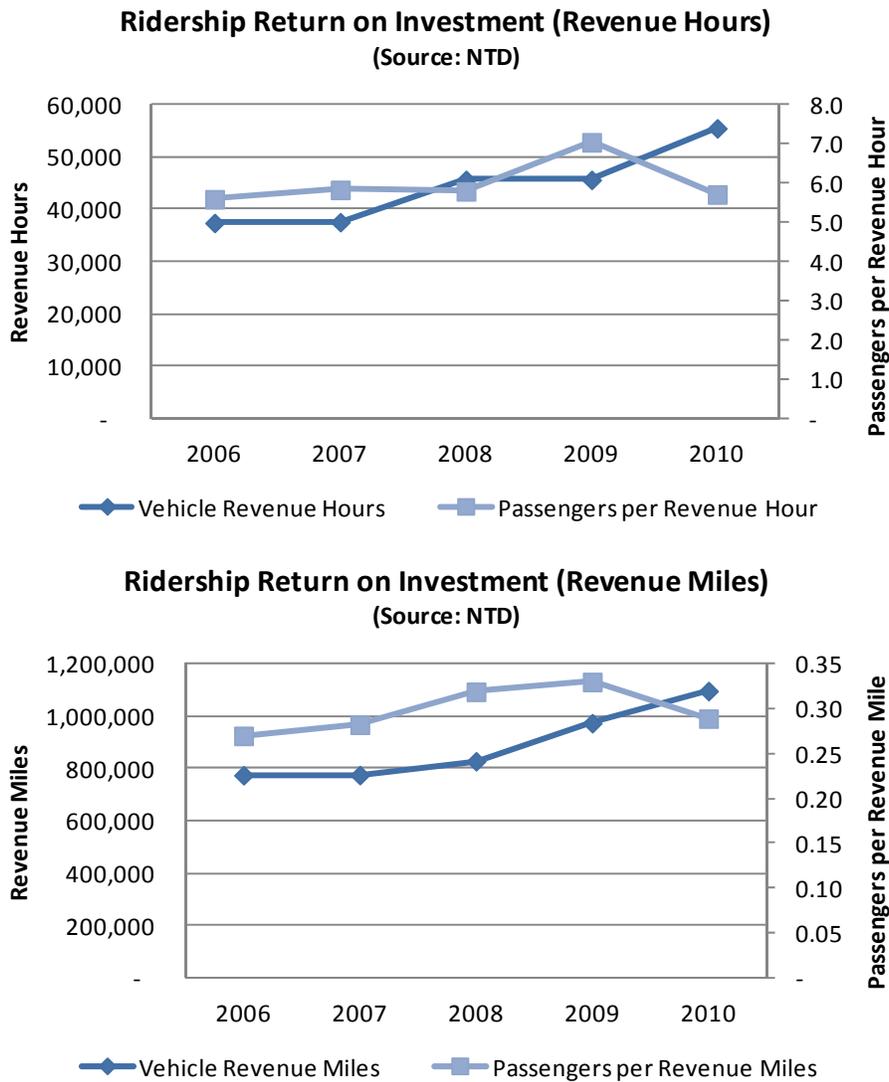
Source: UCAT and Citibus data adapted by Nelson\Nygaard

While UCAT ridership has increased since 2006, the ridership growth has not kept pace with the growth in service provided (Figure 4-4). In 2010, the operating cost per UCAT passenger trip was \$15.15, compared to \$14.19 per passenger trip in 2006. This suggests that the supply of UCAT service may be somewhat misaligned with the demand for such service. For example, a service schedule may not match the commuting times of potential riders, or a service routing may be just beyond the reach of a group of prospective passengers. The TDP will examine individual UCAT routes to determine if there are cases where routes and services are not well matched with demand.

⁸ Data on Citibus ridership was only available for the period between 2008 and 2010.

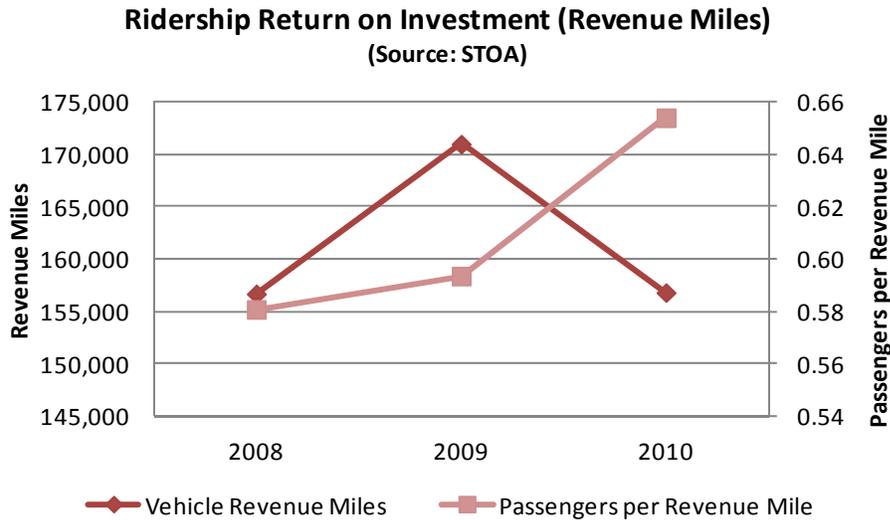
⁹ The 2005 Ulster County Fixed Route Public Transportation Coordination and Intermodal Opportunities Analysis reported the following Citibus annual passenger figures: 2000 – 124,900; 2001 – 126,200; 2002 – 136,600; 2003 – 123,100

Figure 4-4 UCAT Return on Investment



Kingston Citibus does not track revenue hours, but ridership per revenue mile has increased since 2008 (Figure 4-5). The decline in total revenue miles appears to be tied to the discontinuation of a summertime-only replica trolley service.

Figure 4-5 Citibus Return on Investment



In 2010, UCAT reported total farebox revenue of \$416,075 and total operating expenses of \$4.8 million (according to NTD), resulting in a farebox recovery ratio of 8.7%. A general rule of thumb for a small transit operation like UCAT and Citibus is to maintain a farebox recovery ratio of 10-15% (e.g., fares cover 10-15% of operating costs). UCAT’s farebox recovery ratio translated into a \$13.84 operating subsidy per passenger-trip for the year.

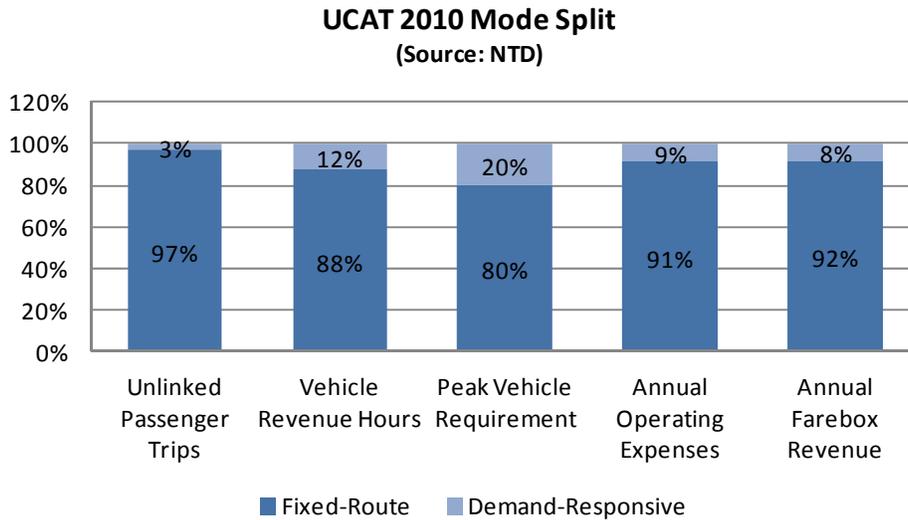
The farebox recovery ratio for Citibus is less precise, as the system does not report to NTD, but Citibus staff estimated that in 2010, the total farebox revenue was \$93,351 compared to expenses of roughly \$1 million – resulting in a farebox recovery ratio of around 9% and an estimated subsidy per passenger-trip of \$8.84.

Service Allocation

As mentioned previously, both UCAT and Citibus operate fixed-route and demand-responsive (DR) services. UCAT’s DR service consist of ADA paratransit services, which complements the UCAT fixed route network (as required by federal law), and general-purpose DR service in rural areas of Ulster County. Citibus provides ADA paratransit service only.

While the provision of general-purpose DR service is a function of agency policy, transit operators have limited leeway in the provision of ADA paratransit service. Federal law mandates that all public transportation operators must provide paratransit service within three quarters of a mile of existing local fixed-route service for individuals whose disability prevents them from using the fixed-route service. However, service productivity can be affected by scheduling and trip planning techniques, and a comparison of DR service productivity to peer systems can reveal potential areas for improvement. In the next phase of the Ulster County Transit Development Plan, Nelson/Nygaard staff will select an appropriate group of peer agencies in consultation with Citibus and UCAT staff. A peer analysis will help put the service performance (both fixed-route and demand-responsive) of UCAT and Citibus into perspective and establish a context to evaluate the relative share of ridership and resources attributed to the individual modes being operated by both agencies (Figure 4-6).

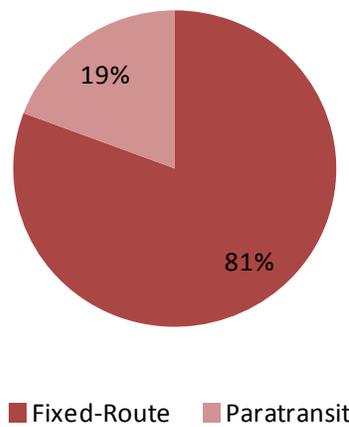
Figure 4-6 UCAT Mode Split



For the most part, Citibus does not track service characteristics by mode, but a review of the farebox revenue by mode (Figure 4-7) gives some indication of the mode split between fixed-route and paratransit service.

Figure 4-7 Citibus Mode Split

Citibus 2010 Farbox Revenue
(Source: Citibus Staff)



Chapter 5. Key Findings

Initial Assessment

As previously noted, this technical memo is the first in a series. As the project progresses, other memos will discuss the results of passenger surveys, stakeholder interviews, and individual route profiles. The data collected as part of the community profile and service overview suggests the following key points:

- Ulster County's largest markets for transit are along the eastern edge of the county in the City of Kingston/Ulster, and in New Paltz and Saugerties. These are the County's population centers and are also where the most jobs and services are located. For economic reasons, Ellenville also shows a strong need for transit. The system also shows a strong link to service provided to SUNY Ulster as a destination.
- While the county is geographically well-covered by transit services, this coverage is at the expense of service frequency. Such a coverage model tends to meet the needs of transit-dependent populations, but is less appealing to choice riders who often value service frequency.
- UCAT and Kingston Citibus operate in an environment that is also served by two inter-city coach services and several human services transportation providers. Closer coordination of services could reduce unproductive redundancies and free up resources to improve service county-wide. One example is a review of the current practice of denying service to passengers who wish to use UCAT for trips that both begin and end within Kingston.
- The format of Citibus passenger schedules is very untraditional, and neither UCAT nor Citibus offers information about the other's service on their printed materials. While seasoned riders may be accustomed to the design of existing informational materials, a lack of information or information that is difficult to interpret can act as barriers to access for new customers. Other issues that may turn away prospective riders include lack of marked bus stops and passenger amenities or an overly-complicated fare structure.
- Citibus is exempt from NTD reporting (due to its small fleet), and thus collects a very limited amount of service performance information. UCAT collects service performance data by driver assignment block rather than by route. Neither system allows for the assessment of service performance at the route level, although UCAT soon will. Without such information, it can be difficult to pinpoint areas of unproductive service or make informed decisions on resource allocation.
- UCAT ridership has increased since 2006, but ridership growth has not kept pace with the growth in service provided. This may suggest that the supply of UCAT service may be somewhat misaligned with the demand for such service. This will be further investigated as each route is analyzed individually.
- A transit dependency index analysis of the City of Kingston/Ulster shows that all census block groups that show high transit need either have a Citibus route running through them or along their border. Subsequent route-level analyses will investigate the quality and directness of these routes.
- County-wide, a UCAT link that may be worth exploring is between Ellenville and New Paltz, which is the most visible east-west link between high transit-need areas missing in the current transit system. This will be explored further in subsequent steps in the study.

Previous Studies

Several plans and studies have been completed in recent years that focus, at least in part, on UCAT and Citibus service. These documents provide context for the issues, challenges, and opportunities related to mobility in Ulster County. The table below (Figure 5-1) summarizes the findings of these various documents.

The over-arching theme of all of these studies is that closer integration of Ulster County's two public transit systems is the key to improving the passenger experience. Some steps have been taken to move toward closer integration, such as the adoption of a similar route naming convention and the introduction of transfer slips between services, but by and large, the two systems remain completely separate.

Figure 5-1 Inventory of Relevant Plans and Studies

Ulster County Long Range Transportation Plan
Sponsor/Author: Ulster County Transportation Council
Date: August 31, 2010
Summary of Findings
<ul style="list-style-type: none">• Identifies the goals for transportation in the region and details the existing conditions of public transit in Ulster County• Inventories the current services and facilities• Transit Needs<ul style="list-style-type: none">○ UCAT and Kingston Citibus - completion and maintenance of Transit Development Plans○ Reporting to UCTC by recipients of federal funding on ridership and financial information○ New or Redesigned Kingston Intermodal Bus Terminal○ Improvements to New Paltz Bus Station○ Improved use of technology in public transit operations○ Study of potential for Ellenville Intermodal Facility○ Further investigation of potential Kingston-Rhinecliff passenger ferry service• Park and Ride Needs<ul style="list-style-type: none">○ Saugerties and some Ulster parking facilities in need of immediate expansion○ Other Ulster facilities repaving, expansion, and security enhancements○ Potential need for facility in Town of Plattekill on Rt. 32• Human Services Transportation Needs<ul style="list-style-type: none">○ Utilize unprogrammed FTA funds○ Coordination between UCAT and Kingston Citibus paratransit to reduce duplication○ Mobility Manager• Recommendations<ul style="list-style-type: none">○ UCAT<ul style="list-style-type: none">▪ Funding for administration and preventive maintenance▪ Bus Shelter program▪ Purchase of 7 buses○ Kingston Citibus<ul style="list-style-type: none">▪ Operations, administration, and preventive maintenance funding○ Adirondack Trailways<ul style="list-style-type: none">▪ Funding for preventive maintenance

Coordinated Public Transit - Human Services Transportation Plan

Sponsor/Author: Ulster County Transportation Council

Date: Sept. 29, 2008 (Updated March 11, 2010)

Summary of Findings

- Report identifies funding allocations and analyzes demographics to determine need
 - Older adults - 13% of residents
 - Persons with disabilities - 14% of population; higher concentration in urbanized areas
 - Persons with low income - 10% of population; concentrated in Eastern third and Southern portion of County
- Provides information about current public transit and human services transportation providers
- Priorities
 - Meeting funding needs for various providers
 - UCAT- 5316 for Mobility Coordinator and 5317 for accessible buses
 - Mileage reimbursement for volunteer drivers for RSVP, an HST provider
 - 5310 on provided on "first come, first served" basis
 - Integrate UCAT and Citibus operations based on Public Integration Analysis Final Report, 2006 (see below)
 - Implement priorities from Ulster County Fixed Route Coordination Analysis, 2006 (see below)
 - Kingston Intermodal Facility
 - Mobility Training and Coordination, through potential hiring of Mobility Coordinator

City of Kingston Intermodal Facility Site Location and Conceptual Design Analysis

Sponsor/Author: Ulster County Transportation Council; Wendel Duchscherer

Date: February 25, 2010

Summary of Findings

Reviews and considers potential locations for an Intermodal Facility in Kingston, based on previous analysis

- Held visioning session to get input for sites that emerged at the top
- Ultimately, the Uptown Parking Garage site is the recommended location, with concept designs and cost estimates presented for that potential facility

Ulster County Commuter Parking Facilities Capacity Analysis and Needs Assessment

Ulster County Transportation Council; Wendel Duchscherer

Date: 2010; Cover Date: April 1, 2011

Summary of Findings

- Analyzes daily parking occupancy of existing commuter parking facilities within the County - current usage as well as comparison over the years
- Recommendations
 - Improve condition and capacity (increase to 40-50 spaces) at lot in Saugerties, State Route 32 at NYS Thruway Exit 20 Southbound
 - Increase capacity to 50 cars and improve condition for lot in Ulster at State Rts. 32 and 199
 - Increase capacity and remove Diner/Super Lodge section of facility, potentially rent satellite facility - Ulster NYS Thruway Exit 19 and Diner/Super Lodge Parking Lot
 - Other small improvements at other lots - signage, commercial use (deli, coffee shop), etc. - but not high priority and not for near-term implementation

Public Transportation Integration Analysis

Sponsor/Author: Ulster County Transportation Council; Prepared by Abrams-Cherwony & Associates

March 2006

Summary of Findings

- Identifies the current administration and service characteristics for UCAT and Kingston Citibus
- Analyzes the current costs and financial structure of each provider
- Presents alternatives for increasing levels of coordinating services between the two public transit providers
 - Do Nothing
 - Coordination Council
 - Reassign Functions
 - Consolidation
 - Transit Broker
- Evaluates alternatives based on a variety of criteria, including: efficiency and effectiveness, quality of service, responsiveness, funding, feasibility, etc.
- The Coordination Council, Consolidation, and Transit Broker alternatives have the highest and greatest number of full satisfaction indicators for the evaluation criteria
- Recommends implementation of a Coordination Council in the near term, with a Consolidation or Transit Broker alternative implemented in the longer term

Ulster County Fixed Route Public Transportation Coordination and Intermodal Opportunities Analysis

Sponsor/Author: Ulster County Transportation Council; Prepared by Abrams-Cherwony & Associates, Eng-Wong, Taub & Associates

September 2005

Summary of Findings

- Provides information on the service characteristics of existing providers
- Analyzes need based on demographics - identifying need and travel patterns throughout the County
- Details input of stakeholders in determining need in the County
- Findings and Recommendations
 - Kingston Citibus
 - Develop transit hub and pulse point at Kingston Plaza
 - Simplify routes and reduce "on request" areas
 - UCAT
 - Improve service frequency and span
 - Develop transit hub and pulse point at Kingston Plaza
 - Eliminate "on request" service at major stops and "closed door" service within Kingston
 - Develop Intercounty service and a shopping shuttle
 - Improve New Paltz Shuttle to have consistent headways and more service
 - Other recommendations
 - Fare - allow for prepayment and coordination of fares between Citibus and UCAT; adoption of U-Pass between Universities and UCAT; potential use of promotional fares
 - Marketing - Developing a plan to better highlight the transit services available
 - Transportation Demand Management - encourage carpools and vanpools
 - Consider transit in land use decisions
 - Terminals: Improvement of Kingston and New Paltz facilities; Build others in Ellenville, Saugerties, Woodstock, Walkkill
 - Commuter Parking Lots - Improve conditions and amenities at several existing lots; Potential for new lots in Ellenville, Woodstock, Saugerties, Walkkill, West Hurley, Marlboro/Milton