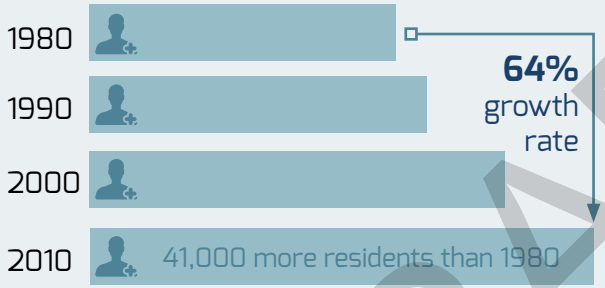
Chapter 3.0

High Point Quick Facts

Exhibit 14. Population Growth, 1980-2010



1.7% population growth rate per year (average)

2.5 persons per household

$44K median household income

20% below povery level

2x the state average for using public transportation to commute to work

3.0 TRANSIT MARKET ANALYSIS AND NEEDS ASSESSMENT

Understanding the strengths and weaknesses of the existing transit network is an important step toward identifying opportunities for improvement and associated needs. A transit market analysis and needs assessment incorporates a rich mixture of quantitative and qualitative data and information that better enable decisions on modifications to the future service network. The principal tasks that contributed to the market analysis and needs assessment included the following:

» **Transit Market Analysis** –This analysis is based on a detailed review of population and employment distribution and trends, densities and growth rates, economic development, and travel patterns.

» **Public and Stakeholder Input** – This effort includes gathering the opinions, priorities and preferences expressed by stakeholders, High Point Transit System drivers and staff, current system riders, and members of the general public.

» **Peer Review** – An important comparison tool, a peer review helps assess High Point Transit's current system and service performance as compared with other similarly sized and positioned transit agencies.

» **On-Board Rider Survey** – An on-board survey of riders helps develop a profile of current riders, their preferences for service, and

DRAFT

» **Service Performance Assessment** – A detailed examination of High Point Transit's individual routes and overall service performance in terms of productivity and how riders are currently using the routes can be invaluable when evaluating potential changes to the system or individual services, and how these changes could impact current ridership trends.

The findings of the market analysis and needs assessment are presented below and organized by each of these five tasks specified above. A final section summarizes the findings and implications of the analysis for the SRTP.

3.1 Transit Market Analysis

Hi tran primarily serves the urbanized area of the City of High Point, with some service to neighboring communities of Jamestown and Archdale. The greater region, that includes Greensboro, continues to grow. As growth occurs, the demand for transit service changes. Currently, the demand for transit is highest in urbanized High Point; a trend that is both historically true and one that will likely continue. However, this is in part due to the fact that the structure of Hi tran's current service predominantly focuses on the urbanized centers of High Point. Rapid employment growth is occurring in the northeast portion of High Point between the central urbanized area and Greensboro, known as the Palladium/Deep River district. This district is a popular jobs center in High Point with an increasing number of service industry and administrative jobs. More detail on this district is provided below.

The market analysis analyzed a variety of demographic, socioeconomic, and available travel pattern data, including a trend analysis on the changes in population and employment in High Point and the surrounding communities, and analysis of the size and spatial distribution of population groups with a greater need for transit services.

Demographic Profile

An important first step in evaluating the market demand and potential for expanded transit service within High Point is the preparation of a detailed demographic profile. Population demographics serve as an important indicator of both potential demand for transit and the type of service needed. For example, a city with a stable but aging population may require more demand-responsive transportation services tailored to the individual needs of passengers during specific times of day.

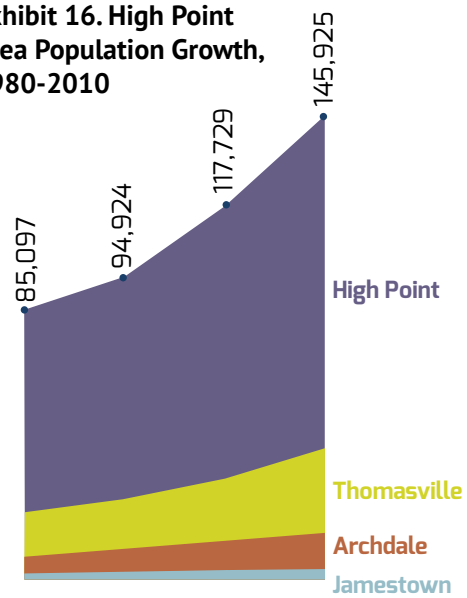
Comparatively, a city with a growing younger population may desire a variety of mobility choices, and prioritize expedient service over coverage. In essence, tradeoffs exist in planning and prioritizing public service investments such as transit, and it is therefore vital to establish a baseline community profile to make informed decisions. The purpose of

Exhibit 15. Population Growth, 1980-2010

Location	1980	1990	2000	2010	Percent Change 1980-2010	Annual Percent Growth Rate
High Point	63,479	69,496	85,839	104,371	64.4%	1.7%
Archdale	5,326	6,913	9,014	11,415	114.3%	2.6%
Jamestown	2,148	2,600	3,088	3,382	57.4%	1.5%
Thomasville	14,144	15,915	19,788	26,757	89.2%	2.1%
Guilford County	317,154	347,420	421,048	488,406	54.0%	1.4%
State of North Carolina	5,881,766	6,628,637	8,049,313	9,535,471	62.1%	1.6%

Source: U.S. Census Bureau, 2014

Exhibit 16. High Point Area Population Growth, 1980-2010



DRAFT

this profile is to gain a better understanding of the existing demographic conditions and characteristics of the city and it's populous.

As the City of High Point and greater Piedmont Triad region continue to grow, understanding population demographics and trends will be essential when identifying actions necessary to expand service and mobility options. Thus, relevant demographic data for the city was collected and is summarized herein. The analysis principally uses U.S. Census Bureau data, including decennial Census data from the 2010 Census and American Community Survey (ACS) – a revolving survey of households conducted annually – to identify current trends and population characteristics.

Population Growth Trends and Income Characteristics

The last few decades have marked a period of immense growth in Guilford County and the City of High Point. While substantial growth continued in the first five years of the new millennia, the national and regional financial downturn of 2007-2009 tempered the pace of growth in the City and County. However, the population growth trends exhibited over the past 10 years are fairly consistent with the growth trends over the past 30 years.

Based on the 2010 U.S. Census, the study area population was 104,371 persons, comprising approximately 21.4 percent of the Guilford County population. While the study area for the SRTP is the City of High Point, smaller adjacent municipalities have been suggested as potential locations for future Hi tran service. Exhibit 16 shows the changes in population for High Point and these other municipalities from 1980 to 2010, as reported by the U.S. Census Bureau.

As evidenced in Exhibit 15, High Point has added 41,000 residents since 1980—a growth rate of 64%. Compounded annually, this equates to a population growth rate of 1.7% each year. Though growing at a slower annual rate than neighboring Archdale and Thomasville (2.6% and 2.1% respectively), High Point's population growth outpaced that of Guilford County (1.4%), which grew by over 170,000 residents during the same time period. The City's growth over the past 30 years has generally mirrored the State's growth rate more closely, albeit slightly stronger.

In addition to decennial Census data, the ACS provides survey data on population characteristics that was used to supplement the decennial Census data reported herein.

The ACS provides communities with more current data in the years between the decennial Censuses. Along with total population, another metric of population growth is the growth in households.

According to ACS data, a total of 40,038 households were identified in High Point between 2008 and 2012, with an

DRAFT

Exhibit 17. Comparative Household Statistics, 2008-2012

Location	Total Households	Persons per Household	Median Household Income	Per Capita Income	Persons Below Poverty Level
High Point	40,038	2.54	$44,367	$22,729	20.4%
Archdale	4,378	2.60	$51,332	$24,202	9.6%
Jamestown	1,405	2.41	$81,250	$43,204	10.8%
Thomasville	10,681	2.51	$34,253	$17,628	29.2%
Guilford County	193,890	2.45	$46,223	$26,384	16.9%
State of North Carolina	3,693,221	2.51	$46,450	$25,285	16.8%

Source: U.S. Census Bureau, American Community Survey, 2008-2012

average household size of 2.54 persons. The median household income was reported at just above $44,000, with a per capita income of half that amount ($22,000). Interestingly, the percent of persons living below the poverty level was nearly 4 percentage points above both Guilford County and the State. Exhibit 17 summarizes these statistics.

A review of ACS five-year estimates for the period from 2008-2012 indicate that High Point's demographics vary from the State of North Carolina in several regards including:

- Approximately 59.1% of High Point residents own their home, as compared to 67.1% of residents in North Carolina. Roughly 28.0% percent of housing units in High Point are in multi-unit structures, as compared to 17.1% of housing units in North Carolina. The median value of owner-occupied housing units in High Point is $145,900, as compared to $153,600 for the State.
- There is a higher proportion of households with persons living alone (30%) in High Point compared with 26% in North Carolina.
- A greater proportion of High Point citizens (29.3%) had four year Bachelor's Degrees or higher as compared with 26.8% of residents statewide among residents 25 years and older.
- More residents were foreign born in High Point – 12% as compared to 7% statewide.
- Fewer residents speak English only – 86% compared with 89% statewide; and more of the non-English speakers speak English "less than very well" – 8% compared with 5% statewide.
- High Point has a younger population as compared to the State; the median age in High Point is 35.3 years compared with 37.3 statewide, and 12.0% of the population is 65 or older compared with 12.9% statewide.
- The use of public transportation for commuting to work as the primary mode of travel in High Point is double that of the State average – 2% compared with 1%.

Several of these findings help inform how future transit service may be developed and delivered in the City. Specifically, the presence of younger populations, lower incomes, a higher proportion of rental properties, and multi-unit housing are indicators of a greater propensity toward transit use. Providing an attractive service designed for the needs of area residents can be highly successful.

Employment Characteristics

Consideration of the community's existing employment characteristics can indicate the type of service that may be most attractive to the City. Some jobs require access to private transportation regularly, while other jobs often result in persons traveling from one point to another for the duration of their work day. The ability to offer a transit service that quickly transports persons who typically drive and park at their destination for a work day creates an attractive and cost efficient travel option.

According to the High Point Economic Development Corporation, the largest employers in the City in 2012 are shown in Exhibit 18. While some of these employers have multiple locations, the employment numbers reflect only those employees in High Point.

Note that this list reflects "full-time equivalent" numbers for High Point-based employees as of December, 2012. Although Walmart chose not to participate in this survey, it reported 591 employees on 2012 City business license forms for its two locations, but the equivalent full time employee number is not known.

The identification of employers and types of industries City and regional residents are employed in is indicative of the transportation service they will most need. For example, several of the businesses and industries listed above are customer service oriented jobs. These types of jobs often work in shifts that start at different times throughout day. Thus, persons in these jobs will require a transportation service that corresponds to the varying start and end times of their shifts.

Comparatively, for persons employed in the healthcare, sciences, or social service fields, a transportation service that expediently gets persons between home and work locations during peak travel periods will be most attractive.

DRAFT

Exhibit 18. Major Employers in High Point

Employer	Industry	Employees[1]
Bank of America	Finance/ Customer Service	2,283
Ralph Lauren	Distribution/ Customer Service	2,062
High Point Regional Health System	Healthcare	1,858
Guilford County Schools	Public Education	1,692
City of High Point	Local Government	1,350
Thomas Built Buses/ Daimler Trucks	Bus Manufacturer	1,294
Cornerstone Healthcare	Healthcare	1,246
High Point University	Secondary Education	1,105
Aetna	Insurance/ Customer Service	805
Solstas Lab Partners	Medical Laboratory Services	779
TE Connectivity	Electronics Manufacturing / Distribution	733
Advanced Home Care	Healthcare	623
Banner Pharmacaps	Pharmaceutical Manufacturing	583
Expert Global Solutions	Customer Service	550
New Breed Logistics	Distribution Networks / Logistics IT	544

Source: City of High Point, 2013 (www.highpointnc.gov/edc/temploy.cfm)

[1] Full Time Employees

Community Destinations and Emerging Growth Areas

In addition to the employers identified above, major commercial destinations or activity centers are also an essential component in determining a community's primary corridors and travel patterns.

Understanding the geographic distribution of community destinations and activity centers helps in the development of transit services that will transport High Point residents from their home or other origin to where they most want to go within the City. Besides the employers noted above, additional community destinations include:

- Guilford Technical Community College (GTCC) locations (both in Jamestown and High Point)
- The two Walmart locations, one on South Main and the other on North Main
- High Point Regional Hospital
- The Piedmont Parkway/Palladium area in the triangle formed by NC 68, I-40, and Wendover Road
- High Point University (student enrollment of approximately 3,000)

Oak Hollow Mall would traditionally be considered a major destination and activity center, but this center is now poorly occupied and has been purchased by High Point University. It remains unclear whether the facility will continue to be used as a retail shopping center or repurposed for other uses. However, until such a time as activity or employment levels warrant, it is not considered a major destination or activity center at the time of the SRTP's development and publication.

An emerging growth center in the City is the Deep River/ Palladium area of northeast High Point near the junction of Interstate 40 and state route 68. This area is rapidly growing as regional job center within the greater Piedmont Triad region, and already displays the employment densities capable of supporting transit service. While land uses are

DRAFT

Exhibit 19. 2011 LEHD Inflow-Outflow Graphic (All Workers)

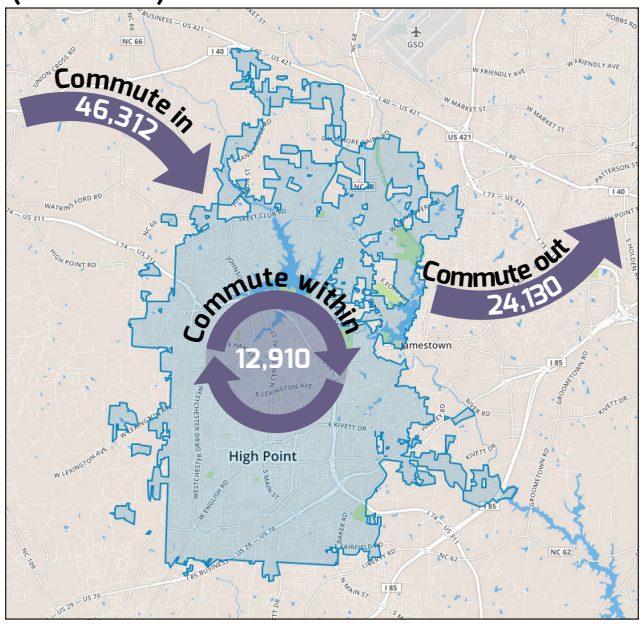
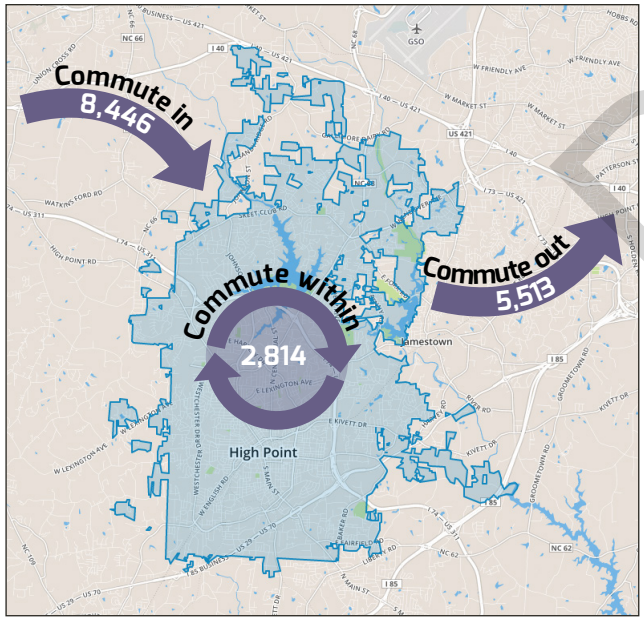


Exhibit 20. 2011 LEHD Inflow-Outflow Graphic (Low-Income Workers)



Source: US Census Bureau, Longitudinal Employer-Household Dynamic Program, 2013

still somewhat discontiguous, this area of High Point is increasingly seen as needing a transit connection, especially as further development is forecasted and anticipated.

Commuting Patterns

The Census Bureau's Longitudinal Employer-Household Dynamics (LEHD) program provides a rich set of data and a detailed view of the commuting patterns of an area's workforce. This data is based upon employer surveys submitted from a variety of regional, state, and federal agencies, and includes information from each states unemployment insurance databases. The data includes information from private and public employers. The federal government is now included in the data, except for agencies that are redacted for security reasons.

The LEHD data are particularly helpful when conducting an assessment of commute-to-work travel patterns to help determine both the potential market for transit and a base level of operating characteristics for services. The LEHD program provides information on worker characteristics including income, age, and industry type, and can show concentrations of workers, commute and labor shed travel patterns. This provides a powerful new tool for examining basic origin-destination flows that may be used to develop an understanding of potential markets for transportation service improvements without requiring a formal travel forecast using a regional travel demand model.

Exhibit 19 shows the inflow-outflow for employment in the City of High Point. In 2011 (the latest available data), a total of 59,222 people were employed within the boundaries of High Point. Of that amount, 22% (12,910) were High Point residents, with the remaining 78% (46,312 persons) of employees commuting from outside of High Point. The number of employed High Point residents totaled 37,040 in 2011. A majority of these residents (65%, or 24,130 persons) commuted to work outside of High Point, with the remaining 35% (12,910 persons) working within the city limits.

Two conclusions can be drawn from this data, both of which show the interrelationship between High Point and the surrounding area. First, High Point is a net source of jobs to the area, with twice as many people commuting into High Point for work as there are leaving the City for work elsewhere in the region. Secondly, twice as many High Point residents leave the City for work as there are residents who stay within the City to work.

From a transit perspective, several important conclusions may be drawn. First, as a service that operates principally within the City of High Point, cross-city employees who reside in High Point but work in other parts of the Piedmont Triad region are unlikely to use Hi tran because the local transit service stays within the City limits. However, what the inflow-outflow analysis does indicate is the need for strong transit connections between Hi tran, PART, and Greensboro Transit Authority (GTA).

DRAFT

The LEHD database permits the selection of workers by pre-set income level. The lowest income level is $1,250 per month ($15,000 annually) or less. This level was analyzed to determine the inflow-outflow patterns of low-income workers in High Point and surrounding areas. This analysis yielded several interesting findings including:

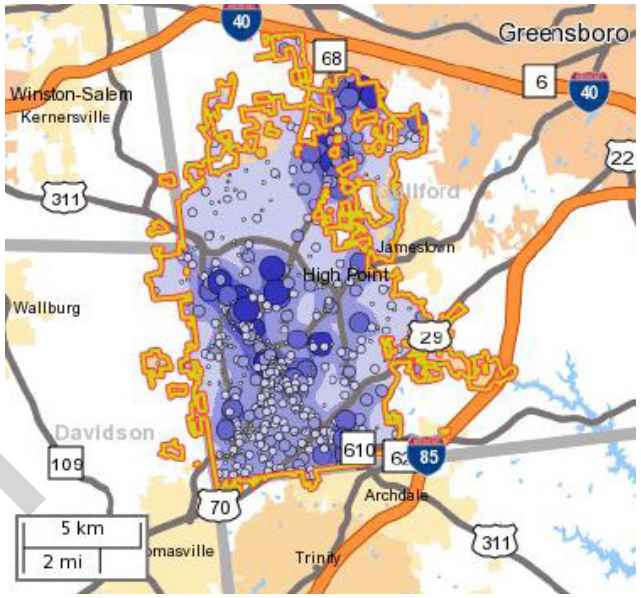
» Low income jobs in High Point totaled approximately 11,260 (or 19% of the labor market)

» A majority of these jobs (75%) are occupied by non-residents

» Although nearly a quarter (22%) of employed High Point residents work in low paying jobs, only 34% work within the City limits, with the remaining 66% commuting to these jobs in other communities

Exhibit 20 shows the inflow-outflow pattern for these workers who due to their income level are more likely to be dependent upon transit than the general population.

Exhibit 21. Low-Income Job Location



Source: US Census Bureau, Longitudinal Employer-Household Dynamic Program, 2013

The low-income inflow-outflow analysis is more balanced than the flow for all jobs, but High Point still attracts more low-income workers into the City as compared to the number of low-income workers who leave for jobs elsewhere in the region. A troubling finding is that nearly twice as many residents have to leave the City limits to find low-income employment than are employed within the City.

DRAFT

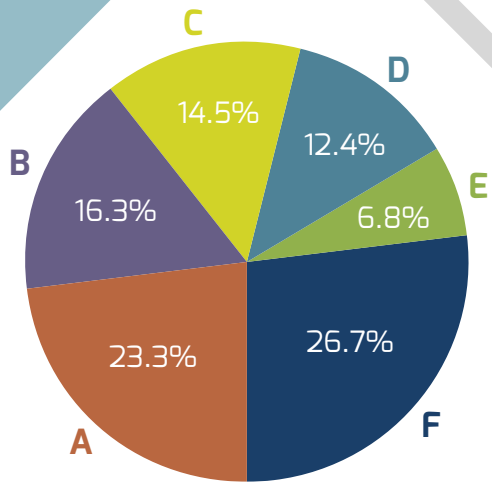


Exhibit 22. Low-Income Jobs by NAICS Sector, 2011

ID	NAICS Sector	Employees	Percent
A	Accommodation and Food Services	2,618	23.3%
B	Health Care and Social Assistance	1,841	16.3%
C	Retail Trade	1,637	14.5%
D	Administration & Support, Waste Management & Remediation	1,397	12.4%
E	Manufacturing	770	6.8%
F	Other Sectors	2,997	26.7%
	Total	11,260	100.0%

Source: US Census Bureau, Longitudinal Employer-Household Dynamic Program, 2013

Exhibit 21 shows the location of the low-income jobs within High Point. These are the jobs within the City limits filled by both residents and non-residents alike. For the purpose of this analysis, low-income jobs are those in which workers earn $1,250 or less per month. The larger and darker circles depict higher concentrations of low-income jobs. As depicted in the graphic to the right, low-income jobs are congregated in several clusters within High Point including:

- The North Main corridor
- Oak Hollow Mall
- The City/County government complexes and High Point Housing Authority
- The Deep River/Palladium area and the Piedmont Parkway area
- The Walmart/Kmart shopping area on South Main Street and the retail/medical area off south Westchester

With the exception of the Deep River/Palladium and Piedmont Parkway areas, all of these areas are served by Hi tran routes. The Deep River/Palladium and Piedmont Parkway areas represent a notable gap in the Hi tran service coverage area. This job center sits immediately at the confluence of several major transportation routes, with a high volume of daily traffic. As an emerging employment area, it will be important to connect this area with downtown High Point.

Improving transit for commuters

Twice as many people commute into High Point than out, and two-thirds of all commuters who reside in High Point live and work outside of the City, indicating a need for strong transit connections between Hi tran, PART, and Greensboro Transit Authority (GTA).

Exhibit 23. 2011 Job Locations of Low-Income Residents

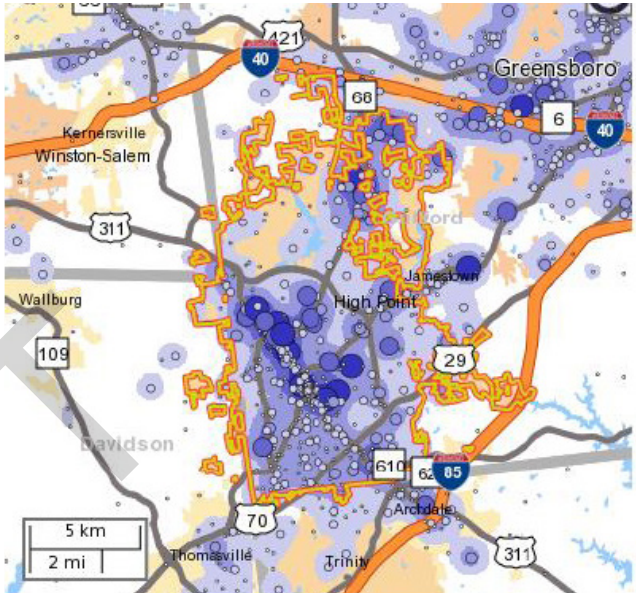
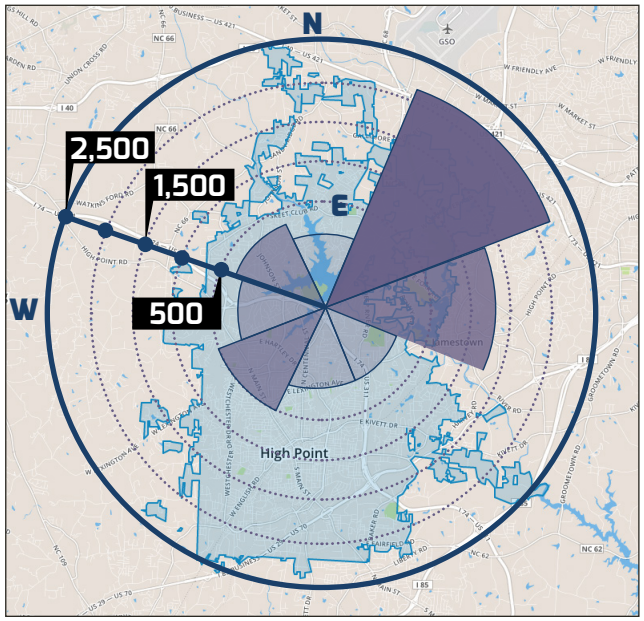


Exhibit 24. Job Counts by Distance/Direction in 2011 ($1,250 per month or less)



Source: US Census Bureau, Longitudinal Employer-Household Dynamic Program, 2013

DRAFT

Further analysis of employment characteristics in High Point and the surrounding region revealed that the low-income workforce is heavily concentrated into the five industrial sectors summarized in Exhibit 22

These sectors closely match up with the locations of the low-income jobs, most of which are located where hotels, restaurants, retail centers, health care, and social services are located. As mentioned previously, 22% (8,327) of employed High Point residents work in low-paying jobs, both within the city limits and beyond. Exhibit 21 depicts the location of their workplace.

The Exhibit 23 shows the specific location and concentration of jobs, while Exhibit 24 is more abstract and includes information on the distance workers travel, indicated by the shading. The darker green is a commute of less than 10 miles while the yellow is a commute of more than 50 miles.

The job locations mostly mirror the locations of the low-income jobs within High Point, but a few other clusters are also notable. The heaviest clusters are centered around GTCC-Jamestown and the Greensboro Auto Auction location north of I-40. Other high concentration locations include Archdale and some retail centers northeast of GTCC-Jamestown.

Public Input Process Findings

While there is strong appreciation and support for the services offered by High Point Transit System, there were frusterations regarding the amount of service provided, the indirectness of travel, lengthy travel times, and limited stop infrastructure.

Transit Supportive Areas

As noted, the most important factor contributing to transit utilization is the density of population and employment at trip origins and ends. "Transit-supportive areas" are identified by the density of the population and employment within a specified geographic area, typically a Census unit such as a tract or block group. The higher the density, the more intensive the transit service that can be supported. The Transit Capacity and Quality of Service Manual suggests that a density of at least 3 housing units per gross acre, or a density of at least 4 jobs per acre are necessary to support at least hourly bus service. An equivalent combination of housing and jobs would have the same effect.

While population and employment density are two important statistical measures considered in transit planning, they contribute to "transit-supportive areas." Transit-supportive areas are those areas with the greatest potential for use of transit services; they are areas with a critical mass of population and/or employment, and land uses and development patterns that constitute the urban physical character to attract and generate trips. These areas are broadly-defined as mixed-use, walkable districts that incorporate a variety of transportation modes from walking to bicycling, transit, and automobiles.

A key ingredient in transit's success is the ability for persons to easily access the service and walk to destinations after exiting the bus. A pedestrian network is an essential part of service design. In general, transit-supportive areas are those that provide safe and comfortable places for persons to walk to and wait for a bus. Providing comfortable passenger waiting areas was one of the most consistently citied improvements recommended by passengers in on-board travel survey (discussed further in Section 3.4).

Several routes in High Point currently serve streets without sidewalks. While the City has taken great efforts to extend the sidewalk network, travel survey respondents and members of both the Steering Committee and Sounding Board expressed concerns with riders waiting or walking

DRAFT

Exhibit 24. Public and Stakeholder Involvement Efforts

along busy streets without sidewalks, and identified the lack of sidewalks as critical challenge facing bus utilization.

Generally, transit industry research suggests that persons who can walk to different land uses in under ten minutes are more likely to utilize those sites, including retail establishments, parks, and community facilities. Placing daily goods and services, as well as recreational destinations, within walking distance of residences increases the incentive to use alternative modes, such as transit.

Finally, zoning plays an important role in the creation of transit-supportive spaces. Traditional zoning codes are designed to separate land uses. Zoning and development codes often set density thresholds, specify minimum lot sizes, and usually outline regulatory restrictions (e.g. height controls) and minimum parking requirements. Today, more cities are embracing mixed-uses that traditional zoning laws often precluded, recognizing the social, economic, environmental, and transportation-related benefits provided. To overcome traditional zoning code requirements, cities often create special use districts, overlay zones, or enact other policy tools to promote dense, compact, walkable, and urban-design friendly spaces and places. These codes often place an emphasis on the use of transit or other non-motorized modes to discourage the use of automobiles and create pedestrian-friendly environments.

3.2 Public and Stakeholder Input

The perspective and priorities of members of the public, existing transit riders, area stakeholders, and operators of the High Point Transit System fixed-routes and demand-responsive services are an important part of understanding the needs and opportunities for service improvements.

As part of the existing conditions and assessment, outreach activities included workshops with the project Steering Committee and Sounding Board members, as well as a transit system operator and staff workshop. An on-board rider survey was conducted with members of the public and current riders (discussed in Section 3.4), complimented by a public open house and comment period during which all members of the public could comment directly on the proposed service options and policies under consideration for adoption as part of the SRTP.

Steering Committee and Sounding Board Workshops

The project team conducted two planning workshops with the Steering Committee and Sounding Board members to review proposed routing structure changes for the High Point Transit System.

DRAFT

The first of these workshops was focused on the identification of goals, values, and developing an understanding of the service development planning process. Members of both committees were asked to provide comments on their perceptions of the current High Point Transit System and given the opportunity to illustrate their vision(s) for the future fixed-route service network on large maps of the existing street network.

The second workshop presented a consolidated view of the goals, values, various viewpoints and visions expressed by Steering Committee and Sounding Board members at the first workshop. At times, the project team had to weigh between conflicting comments when considering service changes. Conflicting comments were resolved by reviewing the comments with respect to the stated goals and vision for service currently and in the future.

Operator Workshop

Input from drivers and staff was gathered during a workshop with operators in late 2013. The purpose and the process of the SRTP was presented during this workshop that included drivers, maintenance employees, and others involved in transit system operations. Drivers and staff were asked to identify issues they experienced during revenue service, what were the challenges and unmet needs with the current service, and what opportunities they saw to enhance the productivity of the current system. High Point Transit System staff were to illustrate maps and routing patterns they felt should be considered for the future system. The exercises conducted during this workshop proved very valuable during the route development and analysis process.

Public Open House and Comment Period

Members of the riding and non-riding public, along with specific project stakeholders representing local institutions, civic organizations, businesses, and population groups all play an important role in ensuring that plan recommendations reflect community values and preferences for transit service.
TO BE UPDATED FOLLOWING THE OPEN HOUSE AND COMMENTS RECEIVED

Findings

Overall, there is strong appreciation and support for the services offered by High Point Transit System. Members of the public, the committees established, and transit system staff understand the challenges confronting the agency and the complexity of planning and operating service. Most participants in the outreach activities expressed a desire for High Point Transit to succeed, and feel the agency plays an important role in the City of High Point's daily mobility.

Still, while support and appreciation for the High Point Transit System services is strong, current riders and members of the committee representing different user groups expressed frustrations with transit services. In general there was a uniform sentiment that the High Point Transit System's existing bus and demand-responsive services were inadequate with respect to the amount of service provided, the indirectness of travel, lengthy travel times, and limited stop infrastructure. Many individuals, civic organizations and institutions would like to work

Measuring service performance

To measure each route's overall productivity and efficiency, we considered:

Costs	Trips per hour
Revenues	Trips per mile
Service	Ridership

DRAFT

more closely with High Point Transit to improve transit services and help design a system that more closely meets their specific needs but also the community at-large.

3.3 Peer Review

As part of the SRTP process, an analysis of peer agencies was conducted to compare High Point Transit's services and overall performance with a peer group of ten similarly sized and positioned transit agencies in the Mid-Atlantic and southern United States.

The peer review is a useful tool to understand what High Point Transit could learn from peer agencies on how to improve service. The full peer review is available as a separate technical memo in Appendix C. Highlighted findings include the following:

» **In general, High Point Transit is a productive and cost effective system for the services operated.** High Point Transit generally outperforms its agency peers in service productivity measures and cost effectiveness measures, from both a system wide and bus-only perspective. Consistent with the system analysis, the findings demonstrate High Point Transit has done a good job overall at operating an efficient and effective system.

» **Overall, operating efficiency is excellent for the fixed-route and demand-responsive operations.** Both service types compare favorably with peer operating cost per passenger and subsidy per passenger ratios. As evidenced by favorable passenger per capita ratios, community utilization of the service is generally above the peer average indicating good support for the service. Compared with the peers, the fixed route operation ranks at or higher in productivity (passengers per revenue hour, passengers per revenue mile) with the demand-responsive operation in line with the peers.

» **On a per capita basis, High Point residents use transit more as compared to the peer group.** The annual number of unlinked transit trips per capita in High Point is higher as compared to the peer group average. This finding at least partially reflects the fact that there is relatively less transit service (in terms of miles per capita) in High Point as compared to many of the peer cities. It may also be the case that High Point Transit serves more transit-dependent riders as compared to peers who may capture a larger proportion of choice riders.

» **High Point Transit has a slightly higher operating cost per capita than the peer average.** As evidenced by favorable passenger per capita ratios, community utilization of the service is generally above the peer average indicating good support for the service. Despite being slightly above the peer average for operating cost per capita, community investment in transit (in terms of operating and capital costs per capita) is in line with the peer group.

» **High Point has a higher proportion of persons who use demand-responsive services than do the peer group.** As demand-responsive service is more costly and less productive by comparison to fixed-route operations, this imbalance warrants an investigating into how best to encourage those persons who use demand-responsive services but are capable of using fixed-route services to take local bus service.

In summary, High Point runs a solid system as compared to regional peers. Addressing demand-responsive productivity by possibly shifting riders and resources to fixed-route operations (or flexible route operations) is an area worthy of consideration. Further, understanding demand-responsive service's decrease in riders per revenue hour can help determine if there are systemic issues that need attention.

3.4 On-Board Rider Survey

The best method for understanding service performance, quality, and effectiveness of existing High Point Transit System services is by asking those persons who use the system. To collect feedback from the public, the SRTP included a survey of High Point Transit System passengers which was administered on board fixed-route buses and demand-responsive vehicles in September 2013. The survey was conducted by directly interviewing bus passengers during their trips. Among other things, this survey asked riders about potential service improvements. The complete survey results are presented in Appendix D.

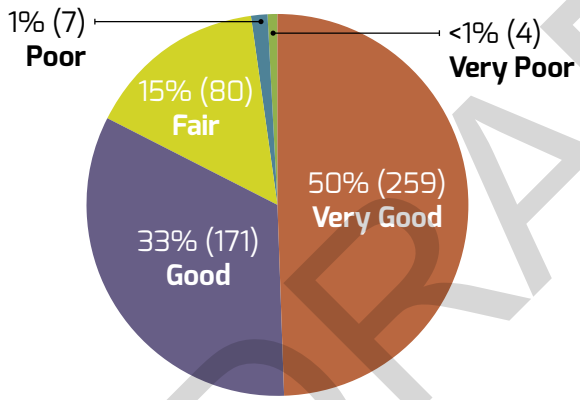
A total of 585 surveys were collected for the fixed-route survey representing most routes in the system, with a total of 57 surveys collected from demand-responsive system users[1]. Survey forms were made available in English and Spanish. The survey asked questions regarding riders' trip characteristics, ridership habits, demographic information, and recommendations for improvements. Riders were asked to indicate their level of overall satisfaction with current services, and what their preferred

DRAFT

improvements would be. Note that not all respondents provided answers to every question in the survey, therefore the number of responses to each question differs from the total number of survey respondents.

Generally, system users gave the High Point Transit System positive reviews with respect to their level of satisfaction with current services, with "Very Good" and "Good" being the top responses received. These types of reviews suggest that consistency in the delivery of service with regard to any service modifications should be considered carefully.

Exhibit 25. Level of Overall Satisfaction with Current Transit Service(s)



Source: High Point Transit System On-Board Rider Survey, September, 2013

Riders were also asked about system needs, and asked to prioritize their preferences for system and service improvements. Exhibits 26 and 27discuss these preferences. First, riders were asked to prioritize service improvements from a list provided of frequent service improvements most transit riders seek (Exhibit 26).

As a follow up to this question, the survey asked riders to identify their most preferred improvement, selecting only one of the improvements from the same list (Exhibit 27).

Exhibit 26. Needed Service Improvements

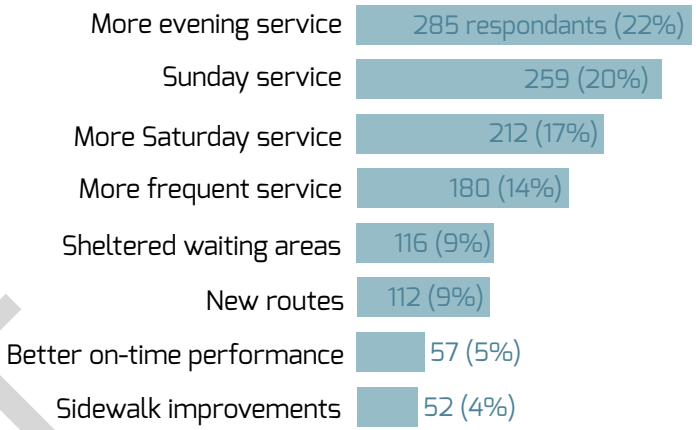
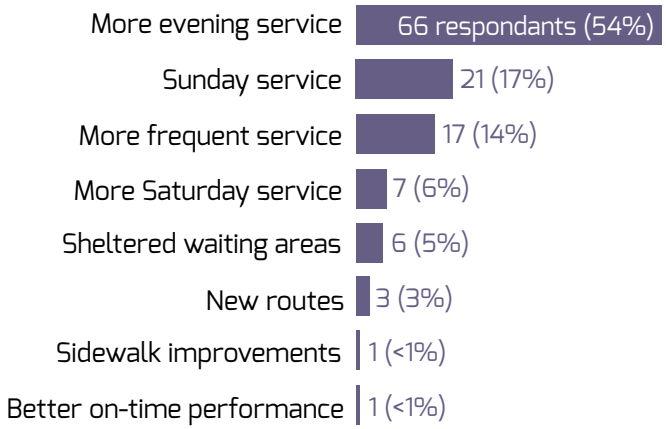


Exhibit 27. Prioritized Service Improvements



Sources: High Point Transit System On-Board Rider Survey, September, 2013

The survey asked participants to provide general information on their origins and destinations. Over two-thirds of respondents (68%) indicated they were coming from home, with the next largest percentage coming from work (12%). In terms of destinations, the largest share of respondents indicated they were going to work (27%).

Besides home and work, the next most common origin and destination was "College/University" with 5% of origins

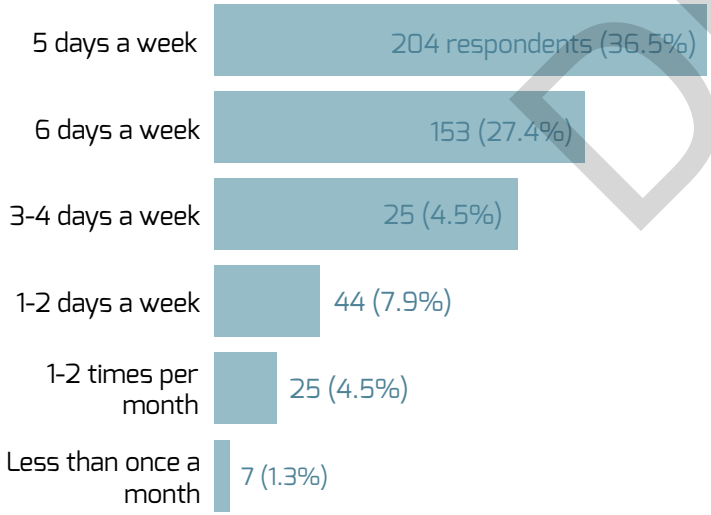
DRAFT

and 16% of destinations. "Other" and "Shopping" trips recorded larger percentages of origins and destinations, particularly on the destination end.

Exhibit 25. Origin/Destination Distribution

Riders were asked how frequently they use High Point Transit System services. As illustrated in Exhibit 28, most of the riders use the service five to six days a week. These results indicate the reliance on the bus system as their source of travel. Also noteworthy was the percentage of responses (65%) that said the bus was their only option.

Exhibit 28. Frequency of Hi-Tran Use among Current Riders

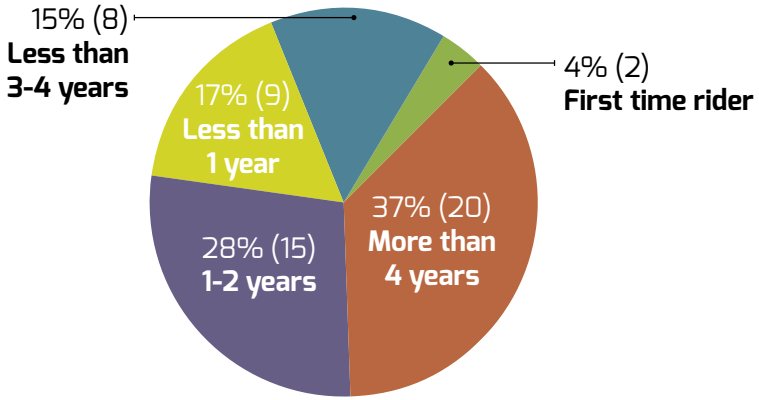


Source: High Point Transit System On-Board Rider Survey, September, 2013

In addition to how frequently they use High Point Transit System services, riders were also asked how long they have been using the bus service. Over half of the responses (54%) indicated they been using the High Point Transit System for at least three years. Approximately one-quarter of respondents were relatively new to the system and riding the bus for less than one year. A general "rule-of-thumb" is that it costs five times as much to replace a customer as it does to keep an existing customer. Therefore it's imperative to maintain efforts to keep existing riders.

To gain an understanding of who uses the bus, riders were asked questions regarding their race/ethnicity and household income, and their reasons for using fixed-route services. The race/ethnicity of High Point Transit System users is over three-quarters Black/African American. As with most transit systems, the household income level for the majority of users is under $15,000 annually. In High Point's case, that number is fairly significant with 74% of responses indicating their household income is less than $15,000. In contrast, less than 1% of responses indicated that their household income was greater than $50,000. The High Point Transit System is already serving the needs of this market, and should continue to do so. Those needs can likely be addressed most by adding frequency on key routes such as North and South Main Streets, and Leonard Avenue. This will give them better and more frequent access to jobs and schools and improve their quality-of-life and transportation.

Exhibit 29. Frequency of Dial-a-Lift Use among Current Riders



Source: High Point Transit System On-Board Rider Survey, September, 2013

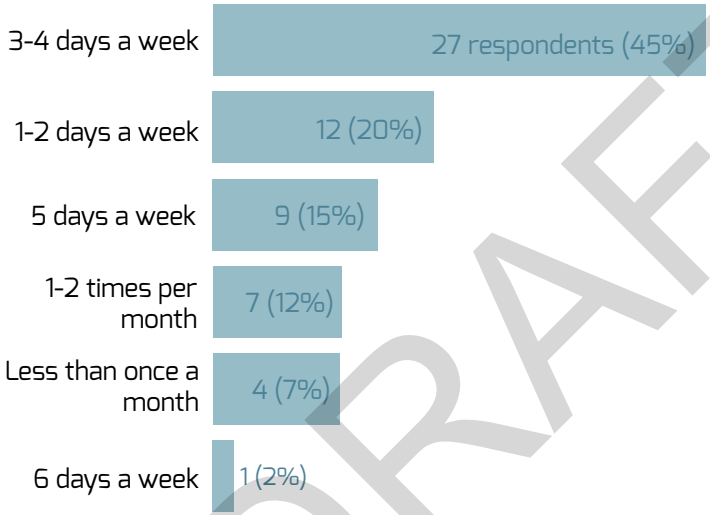
As noted, an on-board survey was also administered to demand-responsive service users to understand the service performance of demand-

DRAFT

responsive services from their perspective, to identify needs and opportunities, and

Among those surveyed and responses received to survey questions, nearly half of survey respondents indicated they use Dial-a-Lift services three to four days per week (Exhibit 30), and a majority of respondents indicated they had been using demand-responsive services for more than four years (Exhibit 29).

Exhibit 30. Length of Time Using Dial-a-Lift



The on-board survey questioned Dial-a-Lift users on why they used the service and the purpose of their trip. Among respondents, a majority stated that the Dial-a-Lift van was their only travel option (nearly 47%); interestingly, while 39% of respondents indicated they did not have access to a private automobile at home, 34% of respondents said they had access to at least one vehicle, and 21% of respondents said they lived in homes where at least two cars were available.

When asked how they might make the same trip if Dial-a-Lift services were unavailable, a majority of respondents said they would seek a ride with someone else, but just over 20% of respondents said they would use fixed-route bus service to travel between their origin and destination.

When asked about service performance, a majority of respondents said that service was either Very Good or Good for total travel time between origins and destinations, and for on-time performance. Respondents also indicated that call waiting times when placing reservations were reasonable, a sign that most requests for service are responded to promptly. Over 90% of respondents said they felt safe and secure in Dial-a-Lift vehicles, and the vehicles were clean and in drivers courteous. Regarding hours of operation, most survey respondents indicated the hours of operation as being Very Good or Good.

When asked what service improvements are needed, responses were somewhat light, and inconclusive. Exhibits 31 and 32 display the expressed service improvements desired by survey respondents for Dial-a-Lift service, and prioritized service improvements.

Exhibit 31. Needed Service Improvements

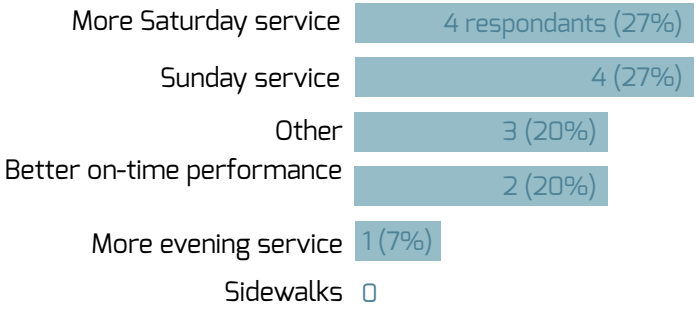
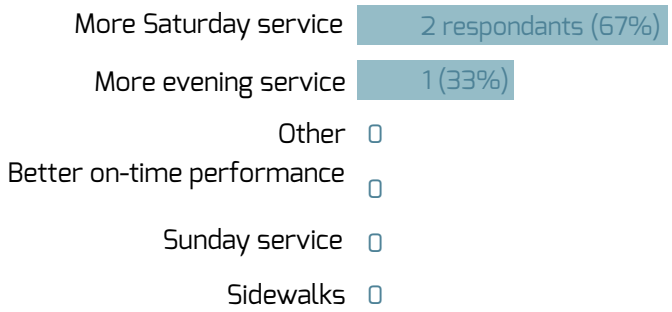


Exhibit 32. Prioritized Dial-a-Lift Service Improvements



Source: High Point Transit System On-Board Rider Survey, September, 2013

DRAFT

Demographically, Dial-a-Lift users are generally over the age of 65, however, persons most age cohorts are currently using the service. While 42% of survey respondents indicating being over the age of 65, 40% of respondents self-identified their age as being between 35 and 64. A strong majority of survey respondents (63%) were women. When asked whether the respondent required the use of a mobility aide or travel assistance, 18% of respondents indicated they used a wheelchair and only 1 respondent was accompanied by a travel assistant.

Balancing Needs and Desires

A common question in transit planning is "What are the greatest unmet needs?" The answer to this question depends on who is asked. For residents living outside the urban core of a city, the typical answer is for commuter-oriented transit services that provide expedient service to downtown or other job centers. For residents living closer to the urban core, the answer is typically longer hours of service and more frequent service on the local bus routes.

In High Point, the responses from the travel survey of fixed-route riders are indicative of the classic service planning challenge: survey respondents desire more frequency, longer service spans, and better geographic coverage. All three of these elements directly compete with one another. Therefore, trade-offs between these competing priorities exist, and service planning must attempt to find balance between each priority.

For years, the High Point Transit System has been steadily building ridership by offering 30-minute service on almost all of its routes. Despite the recent downward trend in fixed-route ridership, overall ridership has continued to increase by comparison with the early and mid-2000's. In the transit industry, 30-minute service is considered to be unattractive to choice riders, while 15-minute service during the peak periods is considered a significant threshold to making transit competitive with driving. This threshold mainly relates to the amount of time people are willing to wait if they just miss a bus. It is clear however, that as funds are available, the frequency of some system routes should be increased during the peak travel periods, and slowly other system routes could be increased as demand warrants. Increasing frequency can help boost ridership, but also requires additional fleet vehicles and operators, thus increasing operating costs. Frequency increases during the peak period on North and South Main Street are anticipated to have the greatest return on ridership, but should also be considered on Route 16 with service into the dense neighborhoods of east-central High Point, as funds are available.

Considering the survey results broadly, expanding the hours of service on routes is likely to be the next most cost-effective investment to generate ridership growth in the immediate future. Service offered from 14-16 hours per day (such as 6:00 a.m. to 10:00 p.m.) is considered to be the minimum needed to attract choice riders, and public reception to providing service later into the evening hours has been positive, particularly for student populations or other shift workers who need safe transportation later at night. In addition to more evening service, Sunday service has also been expressed as a community desire. While extending the span of service also increases operating costs, it would not incur additional capital costs (e.g. fleet vehicles). However, it would be necessary to examine operator contracts and operator schedules to determine whether operators would need to be paid overtime rates during the extended hours of service.

Extending service to new places is critical to the mission of the High Point Transit System as a local service provider, but is somewhat less likely to be as cost-effective (in terms of cost per new rider) than boosting service on existing routes. Peak-period express services linking outlying areas with the urban core are typically the most cost-effective means of starting service to outlying city areas such as the Palladium/Deep River region. Beginning a new service to an outlying area will take time to mature, and service adjustments will likely be necessary in order to adjust the service to best reach its full potential. By starting with a peak-period only type service, this allows service planners to optimize the route during the heaviest travel times to best understand needs and demands for service, and plan for extended service in the off-peak periods.

Additional connections, such as crosstown routes, would greatly expand the travel options of current riders in High Point, and help expedite transit travel times. The current configuration of the High Point Transit System network requires all routes to return to a centralized point, the Broad Avenue Terminal, to transfer across routes. By providing a crosstown service that syncs (as best it can) with multiple routes, this enables all passengers to reduce their travel time across the City by providing connections outside of downtown. A service identified as part of this plan is for a crosstown route on Lexington Avenue, linking with Routes 10, 13, and 25. A southern crosstown route should also be considered in the future.

DRAFT

It should be noted that a higher level of service on the core system will make the future routes to outlying areas such as the Palladium/Deep River region will be more attractive when they are implemented, by allowing for better access throughout the regional core through transfers in the downtown. In sum, better frequencies, spans of service, and days of service offered in the existing core service area will bring the most ridership for the least cost, due to the residential and commercial density in this area, while expansion to outer areas can help expand the future market for public transportation.

3.5 Service Performance Assessment

The SRTP also conducted a performance analysis of the High Point Transit System's productivity as a mechanism to broadly gauge the fixed-route system's productivity and efficiency. The performance of all High Point Transit System routes was evaluated to identify the successfulness of the service and identify routes that need to be examined for productivity improvements. The analysis considered service inputs (costs), outputs (revenue, service, hours, and miles) and consumption (ridership and farebox revenues). Performance data was then expressed in terms of three performance indicators commonly used in the transit industry. It is important to note that this evaluation considered weekdays and Saturdays separately. The factors considered included the following:

1. Passenger Trips/Hour
2. Passenger Trips/Mile
3. Operating Cost/Passenger Trip
4. Farebox Recovery Ratio

Overall Performance Ranking

Routes were separated into quartiles to identify the top 25%, the middle 50%, and the bottom 25%. This commonly-used industry practice helps to identify those routes that are performing well above the determined average, routes that perform well overall and above average, routes that are performing well overall but below average, and routes that perform well below the determined average. In general, routes that perform around the average (the middle 50%) are considered to be operating as anticipated, although some modifications may be made to help improve performance. It is the routes operating in the bottom quartile that should be considered candidates for corrective action(s)[2].

Based upon this analysis, the top 25% of the routes in the system are:

- **Route 10 - Saturday**
- **Route 11 - Saturday**
- **Route 11 - weekday**
- **Route 18 - weekday**
- **Route 16 - Saturday**
- **Route 13 - weekday**

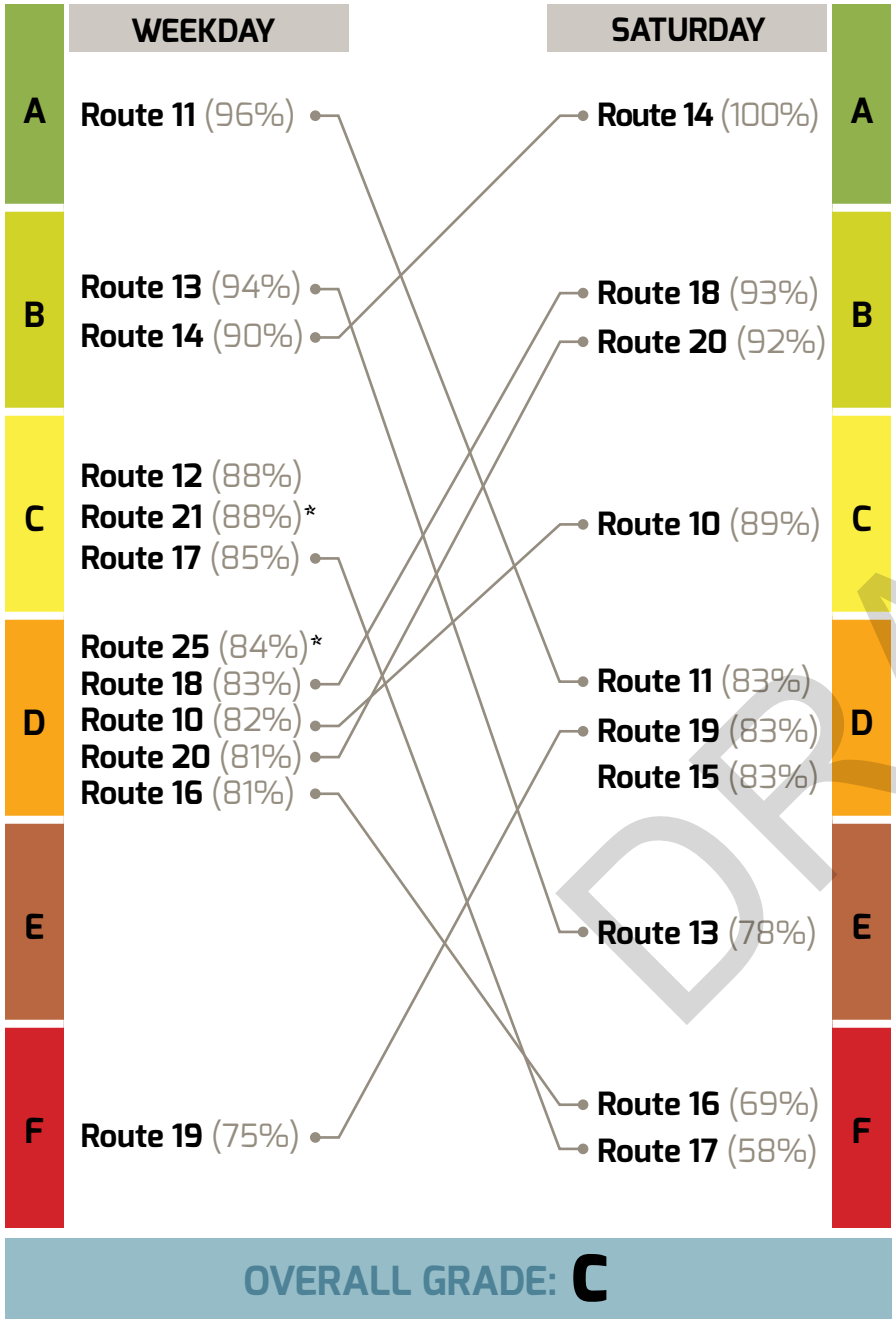
Overall, it is unsurprising to see the routes listed above as the most productive routes in the High Point Transit System. These routes serve the most dense areas of High Point both in terms of population and employment density, serve primary activity centers and major trip generators/attractors, and the areas of the city that are most transit supportive.

While the top two performing routes are not surprising, it is interesting to note that the Saturday service outperforms weekday service. In the case of both Route 10 and Route 11, passengers per hour and passengers per mile are both at the top of all routes in the system. Route 11 also performs well on weekdays, but weekday service on Route 10 falls into the second quartile. The bottom 25% of the routes are:

- **Route 21 - weekday**
- **Route 12 - weekday**
- **Route 19 - Saturday**

DRAFT

Exhibit 32: Hi-Tran Bus Route On-Time Performance



Sources: City of High Point, Department of Transportation, Transit Division, 2013 & TCQSM, 2013

**limited stop route*

» **Route 19 - weekday**

» **Route 15 - Saturday**

Two of the routes in the bottom 25% of the system—the routes 12 and the 21—operate on weekdays only. These are the lowest performing routes in the system and have suffered from the closure of several employers in the former industrial area of the city between South Main and English Road. The closures have also negatively affected the Route 19, both on weekdays and Saturday. Finally, Route 15 only operates on Saturday and has been adversely affected by the drop in occupancy at the Oak Hollow Mall.

On-Time Performance

The boarding and alighting count conducted for this SRTP allowed for a comprehensive analysis of the on-time performance of the routes in the system. To determine a system's on-time performance, many agencies will use a sample of routes and timepoints that may or may not have been randomly selected. For the High Point Transit System, the boarding and alighting count provided a 100% sample of how well the system did on the survey day.

In the transit industry, the most common definition of "on-time" allows for a bus to depart a timepoint between zero minutes early and five minutes late. Departing a timepoint early is considered unacceptable in transit operations because the passenger arriving on time, despite being punctual, will be forced to wait for the next bus, thereby leading to frustration and dissatisfaction with the service. A 5-minute late window permits some variation for unusual circumstances while still allowing the passenger to get to their destination at approximately the time they expect.

Just as some flexibility in the definition of on-time is permitted, it is also reasonable to expect that less than 100% of transit trips will be on time. The Transit Capacity and Quality of Service Manual recommends that at least 80% (LOS D) of the trips be on-time. This measurement should be examined along the length of the route and not just at the terminal stop since riders are using each timepoint along the way as a guide for when to catch the bus.

DRAFT

Exhibit 33: Weekday Vehicle Revenue Miles and Revenue Hours

ROUTE	BOARDINGS PER REVENUE MILE[1]	WEEKDAY REVENUE MILES	COMPOSITE RANKING
11 S. Main Street	2.7	271.32	1
16 Leonard Avenue	2.4	146.79	2
18 E. Green Dr	2.3	147.16	3
17 Washington Dr	2.1	106.71	4
20 Kearns Ave	2.1	88.14	4
13 Montlieu Ave	2.0	135.86	5
10 N. Main Street	1.9	269.5	6
25 GTCC/Jamestown	1.8	120.10	7
14 Westchester	1.3	142.08	8
15 Eastchester (S)	1.1	53.07	9
19 English Rd	1.0	137.45	10
12 W. Green Dr	0.9	132.2	11
21 Industrial Park	0.7	16.09	12

Sources: City of High Point, Department of Transportation, Transit Division, 2013
[1] Based on weekday average boardings by route (refer to Table 6 – Average Daily Riders)

DRAFT

The boarding and alighting count recorded the actual departure time of every bus trip at each timepoint along the way. The results indicate that 11 of the 12 weekday routes achieved a passing grade when considering both directions of the route. Of the 10 Saturday routes, only seven earned a passing grade. The routes and their subsequent on-time performance grades are summarized in Figure 3-8.

The detailed information collected on each trip provides some insight into why certain routes had poor on-time performance. The primary reason for the poor performance was because of buses arriving or departing early from timepoints.

It is important to note that buses are not penalized for arriving early at the terminal timepoint outbound or inbound since few riders are opposed to getting to their destination early. If all early trips were eliminated, every weekday route would have earned an LOS grade of A except for Routes 14 and 18, which would have earned an LOS of B and D respectively.

Thus, only Route 18 has a problem with too little running time, but it still has a (barely) passing grade. On Saturday, no routes ran late; all of the on-time shortcomings were due to buses running early.

Vehicle Revenue Miles and Boardings per Revenue Mile

Two additional performance measures that are traditionally used to assess the effectiveness of transit service are vehicle revenue miles and boardings per revenue mile. Boardings per revenue mile is a measure of productivity in transporting riders on various routes. Exhibit 33 provides a review of average weekday revenue miles and revenue hours operated by route. Routes 17 and 20 both had similar boardings per revenue mile, resulting in an equivalent composite ranking.

With just under 3 boardings per revenue mile, South Main Street is clearly the most productive route in the High Point Transit System, but other routes are also performing fairly well. Route 16 serves densely populated areas of the city, and with 2.4 boardings per revenue mile, has decent productivity. Conversely, routes such as Route 21 and Route 12 may be candidates for route enhancements or modifications to improve performance, or ultimately may need to be eliminated and resources reallocated to existing or new service, or facilities.

The complete boarding and alighting count for the High Point Transit System represented the SRTP's largest data gathering effort. Boarding and alighting counts are the most intensive data gathering effort a system can conduct since it requires a counter to be on the bus during all hours of operation on a single day.

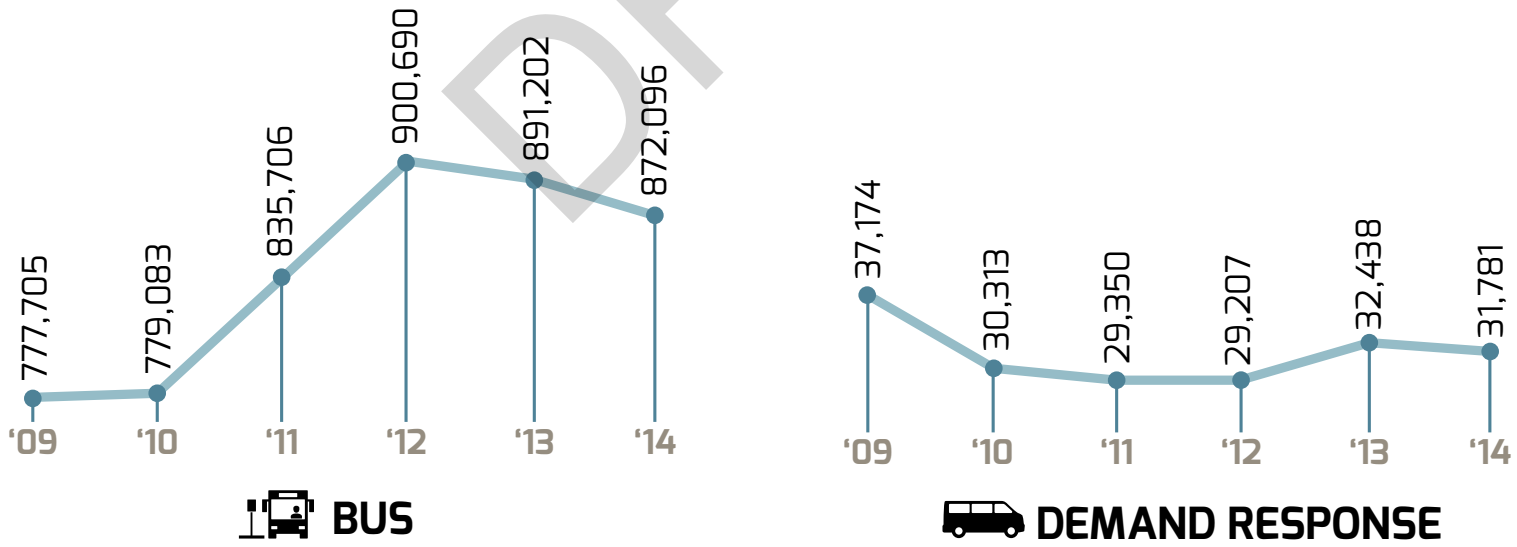
Most transit systems conduct these counts on an infrequent basis due to the labor effort required. The boarding and alighting counts were conducted during the week of September 18, 2013. During the count, the checkers recorded all boardings and alightings for each stop on a trip-by-trip basis. The running time for the routes was also recorded by noting the time for each trip as it passed a timepoint. The following sections detail the ridership findings of the check.

Annual and Daily Ridership Trends

Daily ridership, defined as total boardings, was recorded for each route. Alighting information was also recorded to identify active destination locations. The National Transit Database (NTD) allows for the tracking of various measures over time. Exhibit 34 shows the trends in High Point Transit ridership between 2010 and 2014, provided by NTD.

Overall, bus ridership has grown at a compounded annual growth rate of 4 percent, which is double the population growth rate from 2000 to 2010. The demand-response ridership has fallen considerably, which from

Exhibit 34: Historic Boarding Totals by Day of Week and Mode, 2007-2011



Source: National Transit Database, 2012

DRAFT

Exhibit 35: Average Weekday and Saturday Transit Ridership, 2013

Weekday | Saturday

Routes 12, 21, and 25 only operate on weekdays

ROUTE	TOTAL PASSENGER ACTIVITY	BOARDINGS/ ALIGHTINGS	BOARDING RANK
11 S. Main Street	1,503	755/748	1
	334	167/167	2
10 N. Main Street	1,060	525/535	2
	376	188/188	1
18 E. Green Dr	731	372/359	3
	200	98/102	6
16 Leonard Avenue	679	333/346	4
	207	104/103	5
13 Montlieu Ave	618	311/307	5
	228	110/118	3
25 GTCC/Jamestown	617	310/307	6
17 Washington Dr	486	249/237	7
	211	105/106	4
14 Westchester	400	194/206	8
	128	66/62	8
15 Eastchester (S)	116	62/54	9
19 English Rd	384	194/190	9
	168	84/84	7
20 Kearns Ave	352	174/178	10
	116	58/58	10
12 W. Green Dr	240	118/122	11
21 Industrial Park	24	12/12	12

Source: City of High Point, Department of Transportation, Transit Division, 2013

DRAFT

a cost perspective is beneficial since this service is expensive on a cost per rider basis. Exhibit 33 shows the route-by-route results of the total count.

On Saturday, the total recorded ridership was 1,042, and the average Saturday ridership for FY2013 was 1,088 +/- 181 (17%). On a system-wide basis, the Saturday recorded ridership was within the expected range.

For individual routes, Route 11 was below its expected range, while Routes 13 and 19 were above their expected range. Exhibit 35 displays Saturday ridership levels.

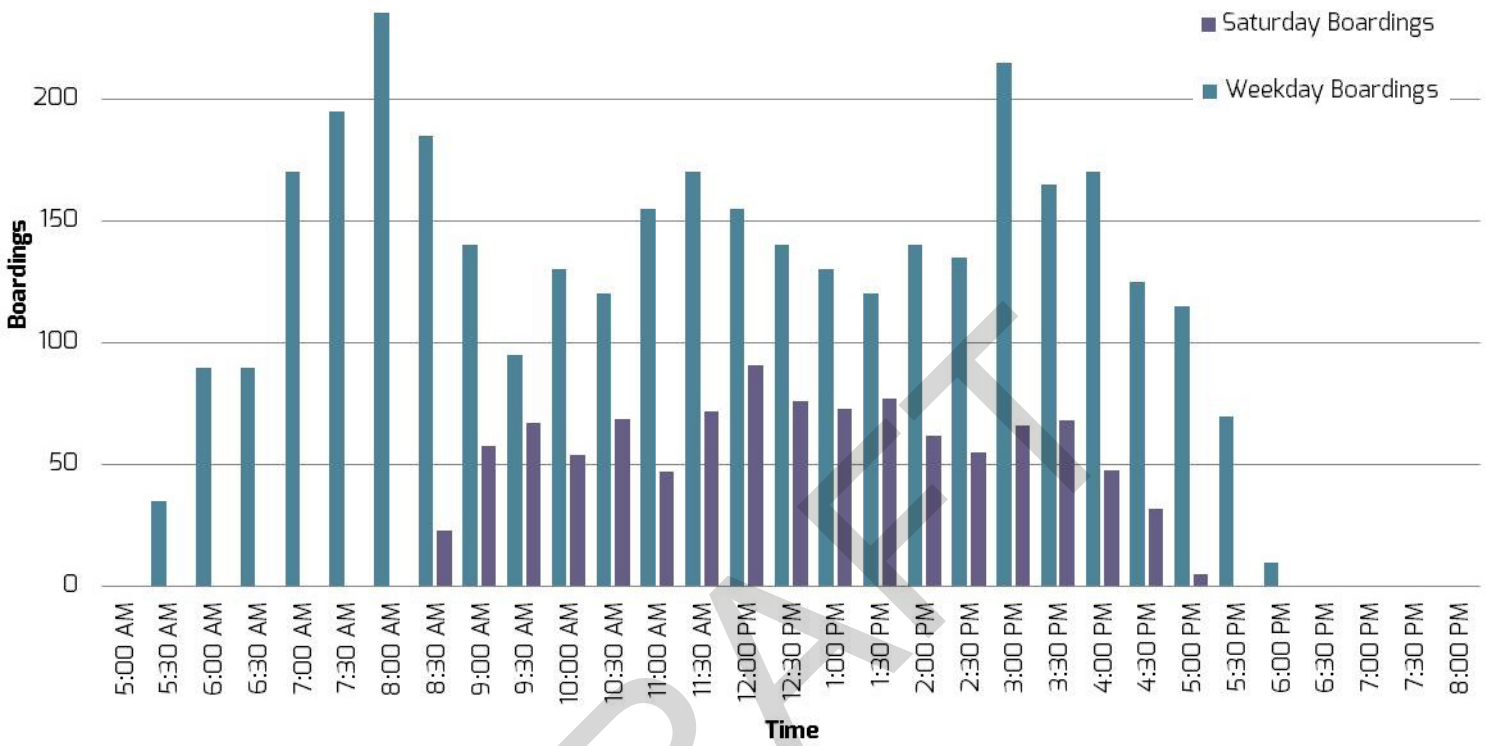
According to the count, the total ridership for all weekday routes was 3,547 daily boardings. This ridership level was compared with the farebox ridership counts from FY2013 to determine if the results were within the expected range.

For FY2013, the average weekday ridership (excluding holidays) was 3,288. Ridership varied plus or minus 446 (14%), which encompasses the recorded ridership from the boarding and alighting count.

On Saturday, the total recorded ridership was 1,042, and the average Saturday ridership for FY2013 was 1,088 +/- 181 (17%). On a system-wide basis, the Saturday recorded ridership was within the expected range. For individual routes, Route 11 was below its expected range, while Routes 13 and 19 were above their expected range. Exhibit 35 displays Saturday ridership levels.

Boardings by Time

Exhibit 36: Weekday and Saturday Average Boardings per Half Hour



Source: City of High Point, Department of Transportation, Hi tran, 2013

DRAFT

Trip level activity was analyzed to identify the ridership profile over the course of a typical operating weekday and Saturday. Ridership was analyzed based upon the start time of the trip, either at the Broad Avenue Terminal or the end of the line, and grouped into half-hour time periods. This analysis provides a view of when High Point Transit System riders are typically using transit.

Exhibit 36 depicts the profile for typical weekdays and Saturdays respectively. What can be seen is that ridership is highest during the traditional peak commuting periods, dipping slightly during the off-peak periods. Interestingly, there is a third "peak" that is observed during the midday period, which may be the result of students traveling between campus and home or work locations, or seniors using the bus network for medical, shopping, or recreational purposes. On Saturdays, ridership patterns appear to be relatively steady throughout the day, although noticeably lower than ridership during weekdays, as would be expected. This could be the result of people traveling to work or for shopping and recreational purposes.

Of the weekday peak hours, 435 boardings occurred between 7:30 AM to 8:29 AM, or roughly 12 percent of the day's total. Unsurprisingly, boardings in the afternoon peak period were more evenly spread across the typical peak periods, a result of the different times people begin or leave work most likely. On Saturday, the peak hour was from noon to 12:59 PM when 167 boardings occurred, approximately 16 percent of the day's total.

Additional Boardings Information

Finally, as public transportation is increasingly becoming a link between non-motorized and motorized forms of travel, staff with the High Point Transit System maintains statistics on the number of persons boarding

Exhibit 37: Passengers with Wheelchairs and Bicycles by Route

Route	Passengers in Wheelchairs	Passengers with Bicycles
12 (West Green Dr.)	18	152
13 (Montlieu Ave)	64	217
14 (Westchester Dr.)	79	266
15 (Oak Hollow Mall)	2	17
16 (Leonard Ave.)	111	136
17 (Washington Dr.)	84	56
18 (East Green Dr.)	239	354
19 (English Rd.)	32	111
20 (Kearns Ave.)	22	37
21 (Industrial Park Sp)	1	2
25 (Jamestown/GTCC)	89	245
10 (N Main St - Wkdy)	230	490
10 (N Main St. - Sat)	19	65
11 (S Main St. - Wkdy)	439	659
11 (S Main St. - Sat)	61	74
GUARANTEED RIDE HOME	-	-
Totals	**1,490**	**2,881**

Source: City of High Point, Department of Transportation, Transit Division, 2013

vehicles using mobility assistance devices and with bicycles. Exhibit 37 provides an overview of wheelchair boardings and boardings by persons bringing bicycles by route.

3.6 Demand-Responsive Service Assessment

As discussed in Chapter 2, the High Point Transit System operates curb-to-curb demand response (commonly referred to as 'paratransit') services as part of its public transportation network. Demand-response services take two forms: ADA-compliant service, and general demand-responsive service. The distinction between these two types of services are that ADA-compliant service must be offered within three-quarters of one mile from any fixed-route bus service, while general demand-responsive service is offered city-wide. Demand-responsive services, known locally as Dial-a-Lift, support a variety of human service and medical transport needs, including trips to grocery stores, pharmacies, educational institutions, and medical facilities. As with the fixed-route system, all Dial-a-Lift demand-responsive services are provided in-house.

Financial support for demand-responsive services is provided by federal and state-aide funding programs, each of which has its own service requirements, along with fares collected from riders. However, because the two services are coordinated, trips on Dial-a-Lift are made using the same vehicles. The High Point Transit System has a fleet of six demand-responsive light duty transit vehicles. Each cut-away van is equipped with a wheelchair lift and restraints for standardized wheelchairs, and each fixed-route vehicle is equipped with ADA-compliant low-floor wheelchair bridge plates, kneeling capabilities, and standard wheelchair restraints.

The High Point Transit System's demand-responsive service is an advanced reservation, origin-to-destination transportation service, providing curb-to-curb transportation for eligible residents (age 60 and above and persons with disabilities) within the jurisdictional limits of the City of High Point. The

DRAFT

service operates on a schedule that mirrors the available fixed-route service provided on weekdays and Saturdays. While same-day travel is available, all trips must be booked in advance between the hours of 8:00am and 5:00pm Monday through Saturday. Service is not available on Sundays. Ride requests may be made up to two weeks in advance of travel. Cancellations must be communicated at least two hours in advance of the scheduled pick-up time. A cancellation made less than two hours in advance are categorized as late cancellations or insufficient notice.

Demand-responsive service is available to City of High Point residents and visitors whose disabilities or health conditions prevent them from using Hi-Tran's fixed-route buses. All eligible persons must register for service in advance. Visitors must also register for services with Hi-Tran and show proof of eligibility for similar services at their home location.

The High Point Transit System is responsible for determining client eligibility, scheduling trips, dispatching vehicles and operating service. Fares for service are $2.00 per person each way (or twice the base fixed-route cash fare, the maximum allowable by ADA). Personal care attendants may accompany a passenger at no extra charge. Service animals are also permitted.

Exhibit 38. Demand Responsive Performance Trends

Performance Indicator	FY2012	FY2013	FY2014[3]	FY2015 (projected)	Percent Change (FY12-FY14)
BASE STATISTICS					
Ridership	29,207	32,438	31,781	32,000	8.8
Vehicle Service Hours	11,147	10,308	10,431	10,500	-6.4
Vehicle Service Miles	121,889	126,083	119,650	120,000	-1.8
Fare Revenue[1]	$56,893	$60,796	$60,050	$59,000	5.0
Operating Costs	$577,653	$613,793	$463,965	$520,000	-19.7
PERFORMANCE					
Passengers/Hour	2.6	3.1	3.0	3.1	15.4
Passengers/Mile	0.23	0.25	0.27	0.27	17.4
Average Fare	$1.95	$1.87	$1.89	$1.84	N/A
Farebox Recovery[2]	9.8%	9.9%	12.9%	11.3%	31.6
Cost/Hour	$51.82	$59.55	$44.48	$49.52	-14.2
Cost/Trip	$19.78	$18.92	$14.60	$16.25	-26.2
Subsidy/Trip	$11.50	$12.02	$11.49	$12.66	-0.1

Source: City of High Point, Department of Transportation, Transit Division, 2014

[1] Excludes reported non-transportation revenues

[2] Percentage of operating cost

[3] FY 2014 numbers shown may reflect fourth quarter YTD data; final FY2014 data is not yet availabl

DRAFT

Dial-a-Lift Performance Assessment

Generally speaking, Dial-a-Lift demand-responsive service is operating well. Exhibit 38 summarizes the performance of Hi Tran's demand responsive services over the past three fiscal years. As shown, ridership has generally remained constant, although slight fluctuations are noted. Service hours and service miles provided have also remained consistent across the past three fiscal years. A good measure of productivity is average fare paid, which is generally in line with total ridership. Average fares paid below $2.00 suggests a minimal number of free rides or rides provided below the base fare are being granted.

Each of the numbers shown in Table Exhibit 38 generally reflect a steady state of service operations, but may be indicative of certain trends. First, it may be that the population of elderly and disabled persons eligible for service has remained relatively constant in the past few years. But with a increase of 8.8 percent in ridership, it is reasonable to assume that demand-responsive ridership will gradually increase in High Point. With expansion of the fixed-route service area to the Palladium/Deep River, it will be necessary to expand the demand-responsive service area if it is not already provided to the northeast region of High Point.

3.7 Summary of Key Findings

Based on the analytic evaluations considered as part of the SRTP's market and needs assessment, the project team identified a series of objectives and characteristics that should be carried forward to the scenario development phase. In summary, service improvements may consider the following findings:

Emphasize service efficiency. Overall, the High Point Transit System is an efficient transit service, reaching many of the markets most in need of service, and any proposed changes should seek to capitalize on this strength.

Service levels are generally appropriate for the markets currently served, although additional investments are warranted along key local bus routes such as Routes 10 and 11 that may encourage additional ridership. Expanding the span of service later into the evening hours will become a necessity.

Focus on emerging markets. While the focus of the High Point Transit System fixed-route service has been on downtown High Point, there are emerging markets that demonstrate a strong need for transit service based on increasing employment, specifically the Palladium/Deep River district.

Increase geographic coverage. Budgetary issues have caused the High Point Transit System to focus on geographic coverage in service plan, with increasingly limited availability in terms of the number of service hours operated. The High Point Transit System primarily serves a market of travelers that depend on bus service for basic travel needs. As a result, the bus route network needs to provide broad geographic coverage.

Extend service spans. In order to attract new riders, or increase overall system productivity, it is recommended that the High Point Transit System consider extended service spans, particularly in the evening hours, and enhancing frequency along key system routes that carry the bulk of system passengers daily. In order to accomplish this, additional financial resources will need to be available for service operations.

Simplify routes. The existing High Point Transit System network is fairly simple, although some routes could be simplified in route design. Routes could be simplified by making them direct connections between major destinations. Straightening the routes would have the benefit of not only being easier to understand for the passengers but would also make the routes easier to schedule and operate, thereby making the service faster, more reliable, and more efficient.

Reduce route size. Related to simplifying route structures, the more that can be done to reduce the size of end-of-line loops, particularly Routes 10 and 11, will significantly save operating cost and could also reduce travel times for passengers.

DRAFT

Eliminate route competition. Competition between bus routes should be eliminated. Currently, the High Point Transit System network includes several bus routes that operate in parallel travel corridors that are sometimes less than one city block apart. This type of route spacing encourages internal competition between routes, leading to lower productivity. As a result, the routes end up competing with each other and reducing the overall coverage of the bus network. Instead, services should be designed as a series of orchestrated, complementary network of routes that provide transfer opportunities and better crosstown coverage.

Modify Deman-Response Service Eligibility Requirements. It is recommended that consideration be given to modifying the service eligibility requirements for demand-responsive service. In particular, consideration should be given to increasing the eligibility age of participants from 60 to 65. Tightening service eligibility standards will temporarily stem the growth in overall demand, and encourage persons who require transit for basic mobility to use fixed-route services. It is advised that any increase in the eligibility age should not adversely affect currently eligible participants below a new minimum age threshold; therefore, persons aged 60 years and over who are now program participants should continue to be eligible for demand-responsive services. This new service eligibility requirement would apply to new applicants only.

Institute a Travel Training Program. A travel training program may be beneficial to encouraging the use of fixed-route services by persons who currently use Dial-a-Lift services that may be physically capable of using the fixed-route bus network. Increasingly, transit agencies across the country are incorporating transit travel training programs as part of the services they offer, targeted specifically to seniors and persons with disabilities. Educational programs at senior centers or assisted living and care facilities where a transit agency representative can directly demonstrate how to board a bus vehicle and pay a fare has been proven as a method of encouraging persons to use fixed-route services.

Improve pedestrian infrastructure. Finally, the lack of pedestrian infrastructure presents a significant challenge to the High Point Transit System operations, and is a reason why some persons who may be incapable or uncomfortable taking fixed-route services rely more heavily on demand-responsive services. Design standards and warrants for bus stops should be developed that specify the type of infrastructure at stops, locating stops where suitable sidewalks are currently located or are planned to be located as part of a development, and at high boarding and alighting locations. Additionally, safety enhancements (e.g. quick call buttons to security or police services) should be made at high boarding and alighting locations, particularly if service is offered later at night.

DRAFT

[1] Note: Ridership surveys did not distinguish between ADA and Non-ADA demand responsive trips; all demand responsive users surveyed were administered the same survey.

[2] Note that corrective action does not mean eliminating a route entirely. Corrective actions can include adjustments to service span, modifications in frequency, alterations to bus stop locations, or other measures.