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rabbittransit Just Hop Ont Chapter 1 – Inventory



Introduction

The York County Transportation Authority, known as *rabbittransit*, is the public transportation provider for York County Pennsylvania. *rabbittransit* provides 28 fixed routes, two express routes, plus paratransit service operating from one maintenance and administration facility. The transit service area covers the 911 square miles of York County and serves a population of 434,972, based on the 2010 US Census.

According to the Pennsylvania Public Transportation Annual Performance Report for the fiscal year 2009-2010, *rabbittransit* supplied 1,412,889 rides on fixed route service and 185,005 on paratransit. Weekday service span ran approximately 18 hours each day and weekend service approximately 14 hours. Providing these mobility services required approximately 1,566,498 vehicle revenue miles and 124,839 vehicle revenue hours of service, utilizing a total of 91 fleet buses with 36 for fixed route service, and 55 for paratransit, along with 156 full and part- time employees.

Fixed route transit service is focused mainly in the York City urban area with radial service to specific suburban area communities including Dover, Manchester, Red Lion, Shrewsbury, and Hanover, as well as a connection to Columbia in Lancaster County. Additionally, the Hanover urban area has its own self-contained fixed route service. *rabbittransit* also operates two express service routes during the workweek: one northbound to Harrisburg and the other southbound to Towson, Maryland.

The goal of the 2011 rabbittransit

Transit Development Plan is to

ensure that its current resources

are being allocated in the most

efficient manner to meet the

identified needs of the customer.

For the years 2006 through 2010, *rabbittransit*'s overall ridership peaked in 2007 and, with the economic collapse in the fall of 2008, experienced a decline in ridership for the years 2008, 2009 and 2010. Despite these hard times, the overall system performance is good, and in a peer-comparison, *rabbittransit* receives thumbs-up in all but one measurement in four performance categories.

With the economy still in recovery, federal transportation legislation authorization pending, and Act 44 funding nonexistent, *rabbittransit* is facing an unclear future for public transit funding. They cannot afford to wait for what happens and react but must be ready to act in a variety of scenarios.

Thus, the goal of the 2011 *rabbittransit* Transit Development Plan (the Plan) is to ensure that its current resources are being allocated in the most efficient manner to meet the identified needs of the customer.

In the following chapters, the Plan will examine various aspects of *rabbittransit*'s fixed route and paratransit service, measure and analyze the transit demand of York County to evaluate whether those needs are being met, make recommendations to improve the efficiency of *rabbittransit*, and point the direction for future transit planning efforts.

Data Sources

A variety of data sources are used in the development of the Plan. Due to reporting requirements that have varying definitions and the different systems used to collect data, not all of the data is 100% reconcilable. Each section of evaluation and analysis utilizes the best data available and appropriate for that section, and every effort has been made to verify the various sets of data to each other. The data sources used for each section of the Plan are identified in the beginning of that section. Additionally, at the time of this plan's development, only the preliminary data for the 2010 US Census has been released, requiring the use of both 2010 and 2000 US Census data for population analysis.

Data Note: In Chapter 1 Inventory, the issue arose concerning the York Hospital Employee shuttle project. This project involved providing transportation from the Queensgate shopping center parking lot to the York Hospital facility during a large construction project at the York Hospital facility. During the project period, *rabbittransit* provided approximately 534,000 trips for York Hospital employees that were partially subsidized by the York Hospital. The shuttle project ended in November 2007, technically in the middle of fiscal year 2008. After much discussion by the Plan's development team, the ridership numbers for the shuttle project were removed from the ridership totals as the development team felt that these numbers skewed the ridership data and obscured impacts from other areas. The revenue from this project, however, does appear under the Funding and Expenses section of Chapter 1, as it was reported and published in the Pennsylvania Public Transportation Performance Reports for 2006 and 2007 and could not be easily subtracted. A note to that effect appears in that section.

Data Sources:

Regional Transit Coordination Study (2011) Southern York County I-83 Park and Ride Study (2011) *rabbittransit* Transit Development Plan (2006) Pennsylvania Public Transportation Annual Performance Reports (2006-2010) York County Comprehensive Plan BARTA Comprehensive Route and Marketing Study (2008) CAT Service Study (2010) RRTA Long Range Public Transportation Plan (2008) Integration of Paratransit and Fixed-Route Transit Service (TRB, 2008) National Transit Database and Glossary *rabbittransit* 2009 Paratransit Survey *rabbittransit* 2010 Fixed Route Survey *rabbittransit* Fixed Route Study (2011)



Chapter 1 - Inventory

This chapter will present a picture of *rabbittransii*'s service area, along with relevant demographic and socioeconomic characteristics, and existing operations with an overview of the five-year period 2006-2010. The operating data for this section comes primarily from the Pennsylvania Public Transportation Annual Performance Reports for those years (2006-2010) and the reports submitted to generate them. The individual years of 2006 – 2010 refer to the *rabbittransit* fiscal year, which encompasses July of the previous year through the end of June of the current year. For example, the year 2006 refers to the period of July 1, 2005 through June 30, 2006. The existing operation includes scheduled, fixed-route service as well as shared-ride, Persons with Disabilities (PwD), and non-public service that will be referred to collectively as paratransit service.

Setting the stage

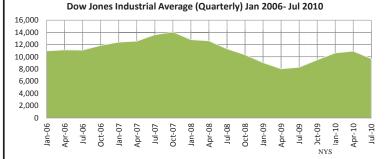
The years 2006 through 2010 were tumultuous years. A combination of widely fluctuating gas prices and a banking crisis triggered a stock market crash that caused an economic downturn with massive job losses, all making it difficult for both the private and public sectors to do more than just hang on until things get better. The following three graphs present a picture of these events: gas prices for York County (in blue) compared to the national average (in red), the Dow Jones Industrial Average, and the Employment rate for Pennsylvania.

• Gas prices rose steadily through 2006 and 2007. They peaked sharply in 2008, reaching a high for York County in June 2008 at a retail price of \$3.98 per gallon. As the graph shows, the York County price per gallon is very similar to the national average, and the impact of the high gas prices were felt everywhere as they were passed on through higher food and commodity prices. Even though gas prices fell through the fall of 2009, consumer prices have remained inflated from 2007 prices as gas prices have crept back up to remain in the mid-\$3.00 per gallon price range.



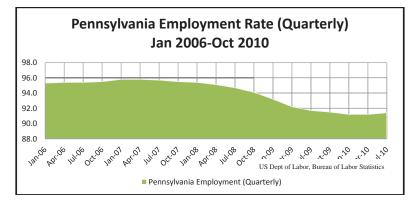
Figure 1-1 Average Retail Price per Gallon of Gasoline, York County and National





• The Dow Jones Average, while not the US Stock Market, is a clear indicator of market value. In October of 2007, the DOW reached a record high of 14,066. Following a series of banking crises, the US Stock Market fell 22% in the first two weeks of October 2008 and kept falling through April 2009, landing the DOW at 8,017. While the market's value has mostly recovered, it remains somewhat volatile, frequently fluctuating between the 10,000 and 12,000-point level.

Figure 1-3 Pennsylvania Quarterly Employment Rate, 2006-2010



• It is not surprising that the fall and fluctuations in the financial markets resulted in an economic recession that we are still experiencing in 2011. Following the drop in the market, many jobs were lost throughout the economy. The employment rate in Pennsylvania was at a near record high in January 2007 at 95.8% (unemployment rate of 4.2%) but fell steadily after that through January 2010 at 91.2% (unemployment rate of 8.8%). Despite the large job-creation effort by the federal government, the employment rate continues to hold around 92% in mid-2011.



As we review operating and fiscal data for *rabbittransit* for the 2006-2010 period, it is important to keep these economic rumblings in mind and add to these the drama of Pennsylvania's Act 44. Passed in July 2007, Act 44 was, concisely, an effort to provide an on-going mechanism for funding transportation, including transit. While a portion of the funding for this legislation was to come from the Pennsylvania Turnpike Commission (PTC), another portion of funding was to come from the tolling of Interstate 80 also through the PTC. After a series of applications, reviews and resubmissions, the federal government finally rejected Pennsylvania's application for the tolling of I-80. This failed attempt has left Pennsylvania several hundred million dollars short in funding for transportation infrastructure projects and transit operations. Currently, there is no plan in place to solve this funding quandary. The future of transportation funding at the federal level remains equally unclear.

In both reviewing *rabbittransit*'s performance over the past five years and plotting its direction for the future, it is necessary to keep the uncertainty of the today in mind. Operational efficiency will outweigh expansion without profoundly demonstrated need, and under-utilized resources, if identified, should be reallocated.

Service Area

The York County Transportation Authority, known as *rabbittransit*, is the public transportation provider for York County Pennsylvania. *rabbittransit* provides 28 fixed routes plus paratransit service operating from one maintenance and administration facility located in the northwest section of the York urban area. The transit service area covers the 911 square miles of York County and, based on the 2010 US Census, serves a population of 434,972.

Located in south central Pennsylvania, York City at the center of York County is 33 miles south of the state capitol, Harrisburg, and 55 miles north of Baltimore. It is bordered by Cumberland and Dauphin Counties to the north, Lancaster County to the east, and Adams County to the west. York County is adjacent to three Maryland counties along its southern border: Carroll County, Baltimore County, and Harford County, running west to east.

York County has two major transportation corridors. Interstate 83 runs north-south connecting York County with Harrisburg and Baltimore. I-83 provides the necessary connection to account for the steady increase over the past two decades that York County has experienced in the number of York County residents who commute to the Harrisburg and Baltimore metropolitan areas for work. U.S. Route 30 runs east-west making a connection to Lancaster and Gettysburg. The Pennsylvania Turnpike also runs through the very northern part of the county, and a section of Route 15, running from Maryland to Cumberland County, cuts through York County in the northwest. Map 1-1 shows York County in relation to its neighboring counties with these major roadways.

According to the 2000 US Census information, York County's senior population numbers 51,396 and its Under 18 population 94,057. There are approximately 203,500 people in the county's labor force and of these, 51,000 travel out of the county each day to work. The top three out-of-county commuter destinations are Cumberland County, Baltimore County, and Dauphin County. And nearly 9,850 of 148,219 households, or 7%, have no cars.

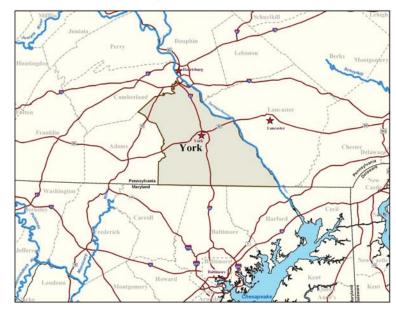
As shown in the following table, York County follows Lancaster County and Dauphin County among its neighbors in actual area. In both population and population density, York County follows both Baltimore County and Lancaster County.

Table 1-1 Population Density for York and Adjacent Counties

]			
	Area		Density
	(mi²)	Population	(population/mi ²)
York County	911	434,972	477.47
Adams County	522	101,407	194.27
Cumberland County	551	235,406	427.23
Dauphin County	558	268,100	480.47
Lancaster County	984	519,445	527.89
Baltimore County, MD	682	805,029	1180.39
Carroll County, MD	452	167,134	369.77
Harford County, MD	527	244,826	464.57

Source: 2010 US Census

Map 1-1 York County, Pennsylvania and Surrounding Area





Fixed Route Service

Fixed route service, according to the National Transit Database Glossary, is transit service provided on a repetitive, fixed schedule basis along a specific route with vehicles stopping to pick up and deliver passengers to specific locations; each fixed route trip serves the same origins and destinations. *rabbittransit* provides 28 scheduled, fixed routes and two commuter express routes throughout the York County service area and into adjacent counties. The following tables list these routes with each one's origin and destination. The color code of blue for Core, pink for Radial, green for Hanover, and aqua for EXPRESS will follow the routes and service type throughout the Plan. During the development of the Plan, *rabbittransit* began a third express route that travels Route 15 from Gettysburg to Harrisburg. Since there is not yet sufficient data for analysis, this new express route was not included in the Plan.

Routes

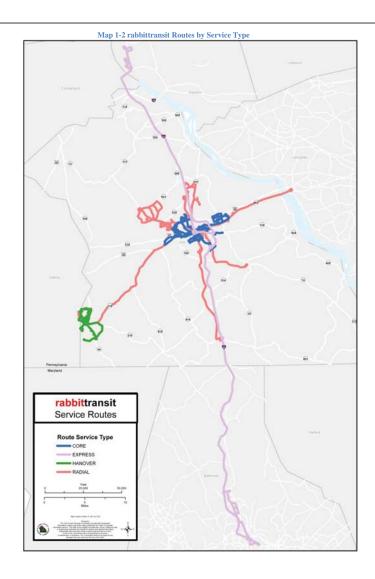
All of the fixed routes can be broken into four service type categories:

CORE: These 14 routes serve the York City urban area and the surrounding urban areas in adjoining municipalities. These routes are shown on the map on Page 1-5.

Route #		te #	Origin	Destination
ŀ		1A Transfer Center		West Manchester
	1B		Transfer Center	York Galleria
		1C	Transfer Center	Pleasant Acres
		2A	Transfer Center	North York via George St
		2B	Transfer Center	South York via Pine St
		ЗA	Transfer Center	Northwest Plaza
	Core	3B	Transfer Center	York College
	U	4A	Transfer Center	Memorial Hospital
		4B	Transfer Center	Queensgate
		5A	Transfer Center	West York
		5B	Transfer Center	K-Mart
		6A	Transfer Center	North York via Beaver
		6B	Transfer Center	South York via Pershing
		55	York College	West Manchester Mall

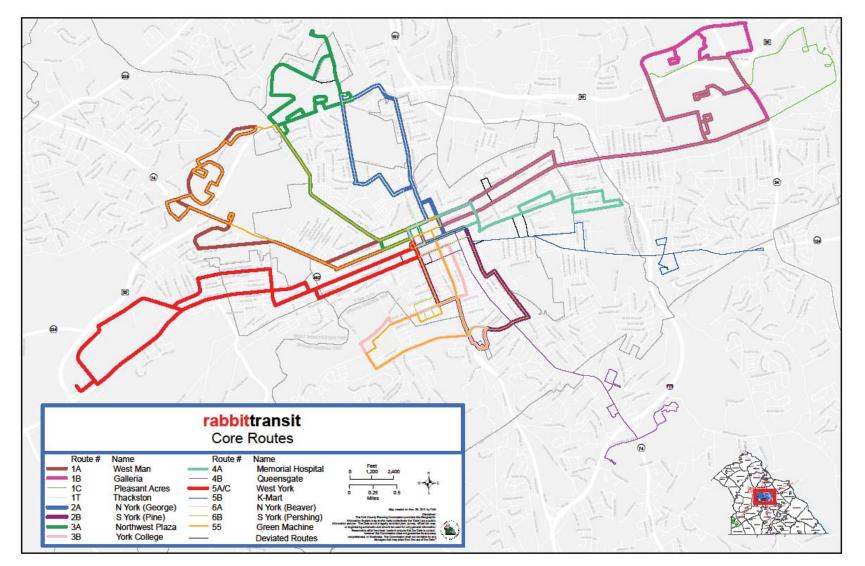
The Routes 1A, 1B, and 1C serve the York City urban center and points west (1A) and east (1B, 1C). The Routes 1 are at the center of the *rabbittransit* route system and have the greatest frequency and the highest ridership of all the route groups. While they are part of the CORE service type, the Routes 1 have been separated from the other CORE routes throughout the Plan for comparison purposes because their data skews the performance measure averages for the Core group.

During the development of the Plan, the 1B and 1C routes were combined into one route, called the 1B or the *new* 1B. A map showing the old 1B-1C and the new combined 1B is on Page 1-6.



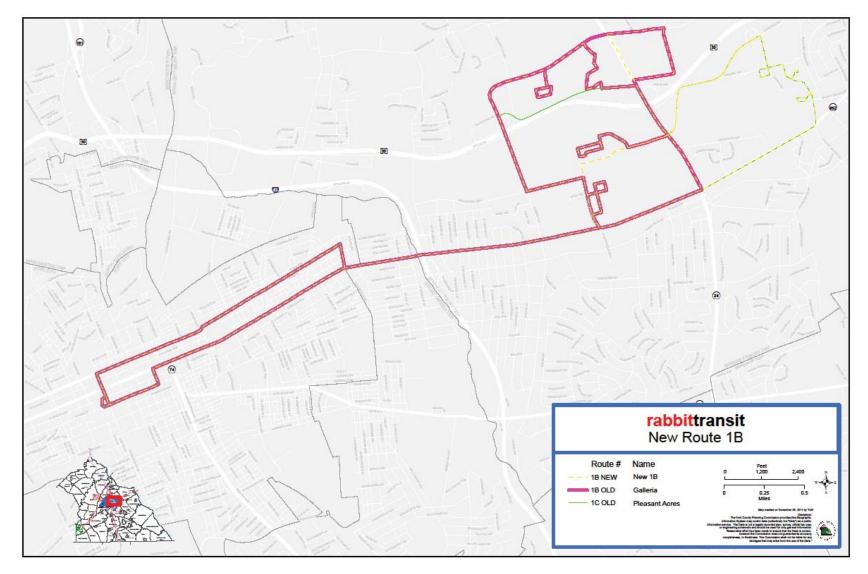


Map 1-3 Core Service Area Routes





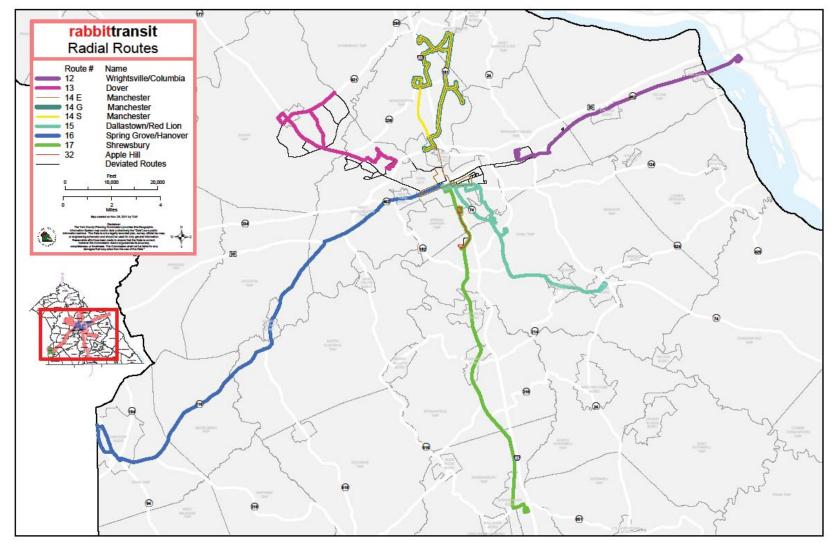
Map 1-4 New Route 1B



Page 1-6



Map 1-5 Radial Service Area Routes

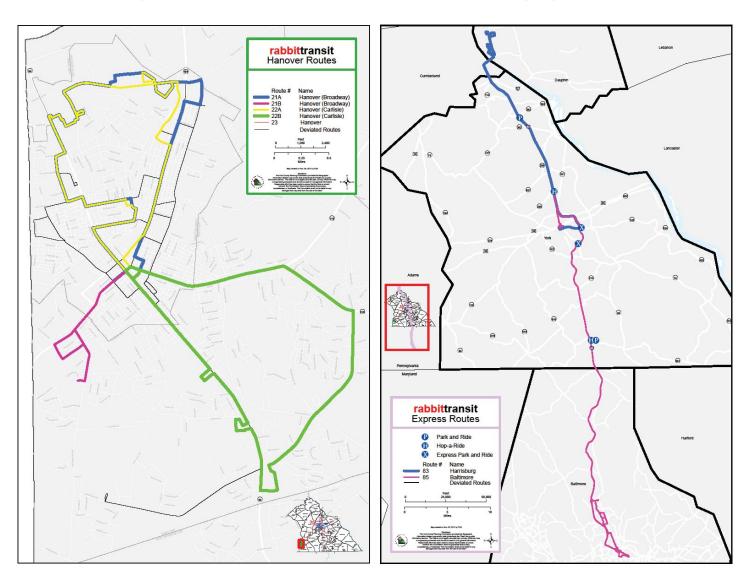


Page 1-7



Map 1-6 Hanover Service Area Routes







RADIAL: These nine routes serve specific communities in York County outside the York City urban area and are shown on the map on Page 1-7.

	Route #	Origin	Destination
	12	Galleria Mall	Wrightsville/Columbia
	13	West Manchester Mall	Dover
	14E	Manchester Crossroads	Manchester
	14G	Manchester Crossroads	Manchester
	Radial 142	Manchester Crossroads	Manchester
	2 15	Transfer Center	Dallastown/Red Lion
	16	Transfer Center	Spring Grove/Hanover
	17	Transfer Center	Shrewsbury
	32	York Hospital	Apple Hill Medical Center
. 1			

Timeline

HANOVER: These five routes serve the greater Hanover area inclusively. They are shown Page 1-8.

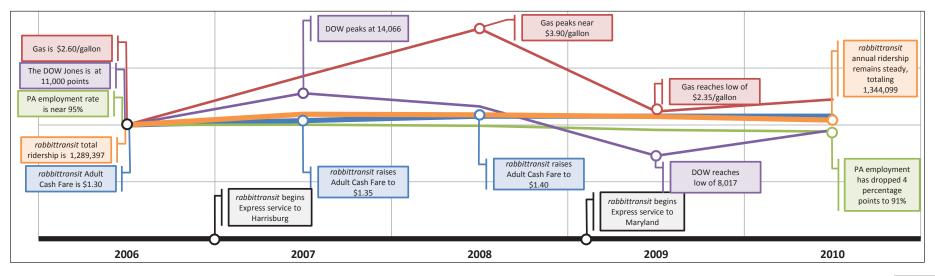
Rou	te #	Origin	Destination
	21A	Hanover Square	N. Hanover Mall (Broadway)
er	21B	Hanover Square	Homewood Village
Nor	22A	Hanover Square	N. Hanover Mall (Carlisle St)
На	22B	Hanover Square	Grandview Plaza
	23	Hanover Square	Hanover Middle School

During the development of the Plan, the Board of Directors for the York County Transportation Authority and the Adams County Transit Authority voted to merge the two groups becoming the York Adams Transportation Authority. While previously, the service area for the Hanover circulator routes was strictly within York County; this merger will provide an opportunity to expand the Hanover service to the entire Hanover urban area, part of which is in Adams County.

EXPRESS: These two routes serve York County's growing out-of-county commuter population. One route travels from York City north to Harrisburg and the other routes travels from York City south to Towson, Maryland. These routes are shown the map on Page 1-8.

Rou	te #	Origin	Destination
Ъ	83	Transfer Center	Harrisburg
ЧX	85	Transfer Center	Towson

As mentioned earlier, *rabbittransit* began another express service route during the development of the Plan. This route travels Route 15 from Gettysburg to Harrisburg.





Overall Ridership 2006-2010

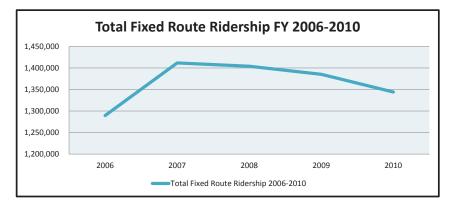
For the period from 2006 to 2010, *rabbittransit*'s fixed route ridership increased overall by 4.2%; however, 2007 was the pinnacle for annual ridership during this period, and from this point to 2010, fixed route ridership declined by 4.79%.

The table and graph below show the ridership levels for the fixed routes as a total for the years 2006-2010, along with the percentage increase or decrease from the prior year.

Table 1-2 Total Fixed Route Ridership, FY 2006-2010



Figure 1-4Total Fixed Route Ridership, FY 2006-2010



rabbittransii's ridership basically follows the same pattern as the Dow Jones Average and the employment rate, as a total system and individual service types; the Hanover routes and the new EXPRESS service excepted. The following graph (Figure 1-5) shows the annual percentage change in ridership for all service types, including paratransit and all transit service combined (System), in relation to the employment rate for York County.

The pie chart (Figure 1-6) shows a breakdown of all *rabbittransit* transit riders for the fiscal year 2010 by route service type.

While the ridership levels of the Routes 1 remained relatively steady during 2006-2010, the ridership levels of the Other Core and Radial routes reflected the layoffs and job loss experienced by York County residents. The ridership for the two main Hanover routes remained fairly stable. Only the EXPRESS service that

began operating in 2006 showed an increase for the period 2006 - 2009 but a ridership level decrease in 2010.

Figure 1-5 Annual Percent Change in Ridership for Each Service Type, and Employment

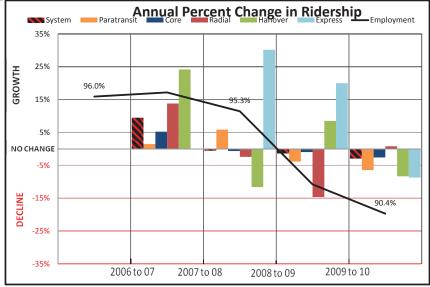
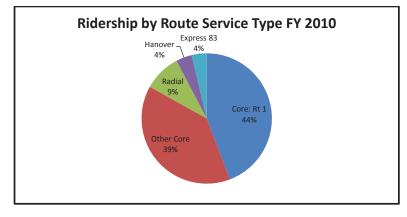


Figure 1-6 Ridership by Route Service Type FY 2010



Page 1-10



The following table and graphs show the ridership levels for all of the Core routes shown grouped by the Routes 1 and the Other Core routes individually.

Table 1-3 Total Ridership, Core, FY 2006-2010

		2006	2007	2008	2009	2010
	1	604,194	606,220	605,613	586,466	594,253
	2	98,864	109,254	99,980	97,035	99,749
	3	105,261	86,978	82,948	111,276	99,766
Core	4	77,561	124,508	131,210	112,409	97,039
ပိ	5	140,827	142,523	154,986	162,200	144,505
	6	83,260	98,735	85,618	79,711	81,372
	55	-	-	-	-	2,477
		1,109,967	1,168,218	1,160,355	1,149,097	1,119,161
			5.2%	-0.7%	-1.0%	-2.6%

Figure 1-7Total Ridership, Routes 1, FY 2006-2010

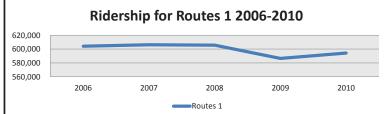
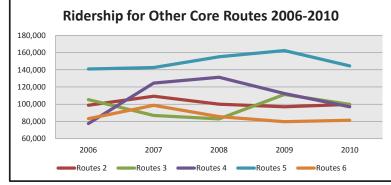


Figure 1-8 Total Ridership, Other Core Routes, FY 2006-2010



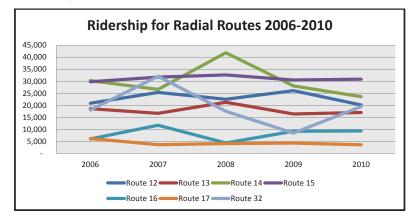
The Core routes represent approximately 83% of the fixed route ridership for any of the years 2006-2010., and the Routes 1 carry roughly 53% of the Core ridership or about 43% of the total fixed route riders. Individually, all routes in the Core group show the impacts of the economic downturn in ridership decreases from 2006-2008 levels vs. 2009-2010 levels.

The following table and graph shows the ridership levels for the Radial routes, 2006-2010, shown individually.

Table 1-4 Total Ridership, Radial, FY 2006-2010

		2006	2007	2008	2009	2010
	12	20,923	25,389	22,526	26,117	20,186
	13	18,638	16,699	21,292	16,411	17,013
	14	30,264	26,637	41,884	28,073	23,605
<u>–</u>	15	29,820	31,744	32,646	30,532	30,907
Radial	16	6,039	11,736	4,357	9,216	9,365
~	17	6,238	3,635	4,097	4,338	3,616
	32	18,070	32,086	17,543	8,501	19,465
		129,992	147,926	144,345	123,188	124,157
			13.80%	-2.42%	-14.66%	0.79%

Figure 1-9 Total Ridership, Radial Routes, FY 2006-2010



The Radial Routes represent 9% of *rabbittransit*'s total ridership in 2010. Route 14 serves several industrial parks north of York City and shows the impact of the York County's job loss from 2008-2010 more than any other route. Route 15 and Route 17 ridership levels remained relatively flat during the entire period, while the other routes had varying fluctuation.

Page 1-11

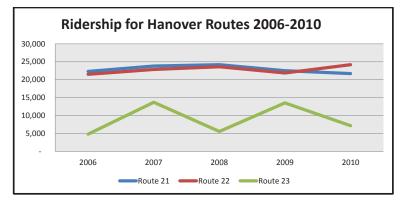


The following table and graph shows the ridership levels for the Hanover routes, 2006-2010, shown both in total and individually.

Table 1-5 Total Ridership, Hanover, FY 2006-2010

		2006	2007	2008	2009	2010
	21	22,291	23,813	24,183	22,495	21,690
/er	22	21,496	22,857	23,600	21,867	24,171
Hanover	23	4,826	13,702	5,573	13,529	7,192
На		48,613	60,372	53,356	57,891	53,053
			24.19%	-11.62%	8.50%	-8.36%

Figure 1-10Total Ridership, Hanover, FY 2006-2010



The Routes 21 and 22 ridership levels remained both relatively stable during 2006-2010 and almost equal. Overall, the Hanover routes experienced an increase in ridership of 9.1% from 2006 to 2010.

The following table and graph shows the ridership levels for the EXPRESS route (Harrisburg), 2006-2010. This commuter service route began in July of 2006. EXPRESS service to the Baltimore area began in February 2009 and because the service reported for the Plan timeframe was less than one year, this route was not included in the ridership numbers.

Table 1-6 Total Ridership, Express, FY 2006-2010

		2006	2007	2008	2009	2010
ХР	83	825	35,156	45,759	54,900	50,115
				30.16%	19.98%	-8.72%

Figure 1-11 Total Ridership, Express Harrisburg, FY 2006-2010



From the Southern York County I-83 Park N Ride Study (Jan 2011), the following graph shows the ridership level of both express routes combined from 2006-2010.

Figure 1-12 Total Ridership, Express, FY 2006-2010



From the first quarter of operation in the Summer of 2006 through the end of Spring 2010, the ridership levels rose from 7,856 to 17,333 – that's 120.6%. Overall, measuring the July-August-September quarters from 2006 through 2009, average growth in ridership has increased steadily by just under 30% annually.



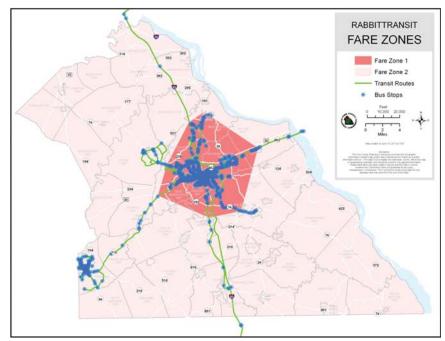
The schedules for the fixed routes are shown below in Table 1-7. All 28 fixed routes and two express routes operate during the weekdays Monday through Friday. All Core routes, plus one Radial route, and two Hanover routes operate on Saturdays. On Sundays, 13 of the 14 Core routes operate, along with one Radial route. In 2010, weekday service began as early as 5:20am and ended as late as 11:40pm; Saturday service began as early as 7:15am and ended as late as 9:55pm and on Sunday 5:45am until 8:15pm.

Table 1-7 Route Span

n					
			Weekday	Saturday	Sunday
		1A	5:20 AM - 10:20 PM	7:15 AM - 9:50 PM	9:20 AM - 6:20 PM
		В	6:00 AM - 9:55 PM	8:00 AM - 9:55 PM	9:00 AM - 6:25 PM
		С	5:45 AM - 11:30 PM	7:15 AM - 9:45 PM	9:15 AM - 6:25 PM
		2A	6:15 AM - 10:30 PM	7:15 AM - 9:45 PM	9:15 AM - 6:20 PM
		В	6:45 AM - 10:15 PM	7:45 AM - 9:15 PM	9:45 AM - 6:15 PM
		ЗA	6:35 AM - 10:15 PM	7:05 AM - 9:50 PM	9:05 AM - 5:50 PM
	e	В	6:15 AM - 10:20 PM	7:15 AM - 9:45 PM	9:15 AM - 5:45 PM
	Core	4A	6:15 AM - 9:45 PM	7:15 AM - 9:45 PM	9:15 AM - 5:45 PM
		В	6:45 AM - 10:15 PM	7:45 AM - 9:50 PM	9:45 AM - 5:50 PM
		5A	6:15 AM - 10:20 PM	7:45 AM - 9:50 PM	9:45 AM - 6:00 PM
		В	6:15 AM - 10:20 PM	7:15 AM - 9:20 PM	9:15 AM -6:15 PM
		6A	6:45 AM - 10:15 PM	7:45 AM - 9:50 PM	9:45 AM - 6:15 PM
		В	6:15 AM - 10:20 PM	7:15 AM - 9:45 PM	9:15 AM - 6:20 PM
		55	7:15 PM - 2:55 AM	7:15 PM - 2:55 AM	
		12	6:00AM - 6:25 PM	-	-
		13	6:00 AM - 6:00 PM	-	-
		145	8:30 PM - 11:40 PM	5:45 AM - 7:57 AM	5:45 AM - 8:15 PM
		14E	-	5:45 PM - 7:57 PM	5:45 PM - 8:15 PM
		14G	6:30 AM - 8:30 AM	-	-
	lial	140	2:30 PM - 5:30 PM	-	-
	Radial	14S	6:30 AM - 9:30 AM	-	-
		143	1:30 PM - 6:30 PM	-	-
		15	5:20 AM - 7:00 PM	-	-
		16	7:45 AM - 6:30 PM	-	-
		17	6:15 AM - 4:45 PM	-	-
		32	7:30 AM - 5:30 PM	-	-
	rer	21	6:05 AM - 6:05 PM	7:05 AM - 6:05 PM	-
	Hanover	22	6:00 AM - 6:05 PM	6:55 AM - 6:05 PM	-
	На	23	7:10 AM - 3:50 PM	-	-
	S	83	5:45 AM - 9:35 AM	-	-
	RES	05	2:05 PM - 6:20 PM	-	-
	EXPRESS	85	4:40 AM - 9:54 AM	-	-
		05	2:40 PM - 7:39 PM	-	-

The fixed route service has a basic two-zone fare structure. The basic fare for adults, age 23-64, is \$1.40 for Zone 1 and \$1.90 for Zone 2. Students, age 6-22, are charged a basic fare of \$1.15 for Zone 1 and \$1.40 for Zone 2. Registered Senior Citizens age 65 and older ride free, along with children age 5 and under. Persons with disabilities are charged a basic fare of \$.70 for Zone 1 and \$.95 for Zone 2. Passengers on the EXPRESS bus to Harrisburg pay a basic fare of \$3.50 each way and those to Towson, Maryland pay \$5.00.

Map 1-8 rabbittransit Fare Zones





Non-Express Service Fares

Passengers accessing the Core, Radial, and Hanover service can pay their fare in a variety of ways ranging from pay-as-you-board to pre-purchased, discounted passes. The fare structure for these routes is shown below in Table 1-8.

Table 1-8 Fixed Route Fare Structure for Core, Radial and Hanover Service

Table 1-9 Total Riders, FY 2006-2010 by Fare Type, Non-Express Service

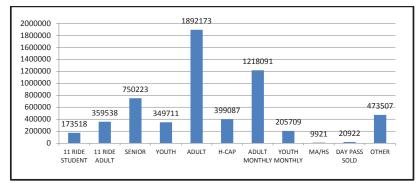
Fixed R	Fixed Route Fare Structure								
	ZC	DNE	Ī						
	1	2		Cost Per Trip					
Adult (Age 18-64)	\$ 1.40	\$ 1.90	\$ 1.40						
Student (6-22)	\$ 1.15	\$ 1.40	\$ 1.15	C • • • • • • • •					
Persons with Disabilities	\$ 0.70	\$ 0.95	\$ 0.70	8° 0					
11 Ride (Adult)	\$	13.00	\$ 1.18	2003 K					
11 Ride (Student)	\$	9.00	\$ 0.82	8 ° 🕢 °					
Adult 31 Day Pass	\$	39.00	\$ 0.89						
Student 31 Day Pass	\$	32.00	\$ 0.73						
Registered Senior Citizen (Age 65+)	Fr	ree	\$-						

Table 1-9 and Figure 1-13show the total ridership by fare type for the Core, Radial and Hanover services for 2006 through 2010. The Adult fare or cash paid by a rider age 23-64 is the most common fare paid on these routes combined, followed by the Adult Monthly pass.

DAY 11 RIDE 11 RIDE ADULT YOUTH SENIOR YOUTH ADULT H-CAP MA/HS PASS OTHER STUDENT ADULT MONTHLY MONTHLY SOLD 2006 23,974 53,089 149,638 97,023 397,357 49,022 228,574 15,108 1,969 3,887 84,929 2007 25,392 69,452 155,836 73,027 365,304 84,755 249,014 43,211 2,251 4,427 114,122 2008 29,225 81,904 145,747 73,542 387,755 87,438 246,698 51,939 4,175 4,735 102,736 2009 84.764 152,993 48.303 343,444 118.003 247.370 72.213 123 4.128 83,546 32.092 2010 62 835 70,329 57,816 398,313 59,869 23,238 1,403 88,174 146 009 246 435 3.745 Total 173,518 359,538 750,223 349,711 1,892,173 399,087 1,218,091 205,709 9,921 20.922 473.507

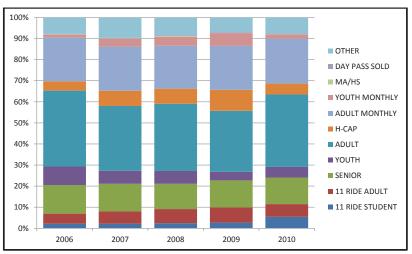
*Does not include EXPRESS; Removed Single Ride Pass Issue Emergency Day Pass and Event Pass from 2010

Figure 1-13 Total Riders, FY 2006-2010 by Fare Type, Non-Express Service



The distribution of riders among the various fare types for the individual years 2006 through 2010 is shown in Figure 1-14. In the column for each year, the percentage of riders by fare type is shown in the height of each fare type by color. It is easy to see the decrease in the Youth fare from 2006, a corresponding increase in the Youth Monthly pass from 2006 to 2009, and then the decrease in the Youth monthly pass and corresponding increase in the 11-Ride Student pass from 2009 to 2010.







Express Service Fares

EXPRESS service passengers also have the option to pay-as-you-board or pre-purchase discounted passes. The fare structure for EXPRESS service is shown below in Table 1-10.

Table 1-10 Express Service Fare Structure

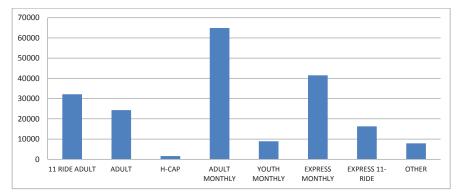
EXPRI	EXPRESS Fare Structure								
	Route								
	:	83N		83S					
One-Way	\$	3.50	\$	5.00					
11- Ride		31.00		50.00					
31-Day		95.00		136.00					

Table 1-11 and Figure 15 show the total ridership by fare type for the EXPRESS service for 2006 through 2010. The Adult Monthly pass is the most common fare paid, followed by the EXPRESS Monthly pass.

Table 1-11 Total Riders by Fare Type, FY 2006-2010, EXPRESS Service

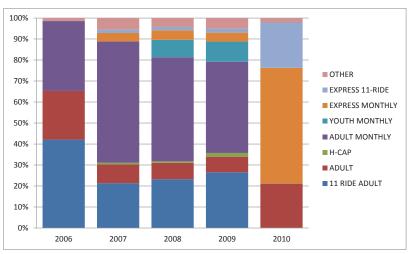
	11 RIDE ADULT	ADULT	H-CAP	ADULT MONTHLY	YOUTH MONTHLY	EXPRESS MONTHLY	EXPRESS 11- RIDE	OTHER
2006	347	191	-	274	-	-	-	12
2007	7,029	2,931	269	19,047	-	1,348	509	1,835
2008	10,207	3,386	333	21,735	3,630	1,989	686	1,880
2009	14,535	4,099	967	23,821	5,276	2,344	1,053	2,765
2010	24	13,703	11	36	1	35,815	14,051	1,400
Total	32142	24310	1580	64913	8907	41496	16299	7892

Figure 1-15 Total Riders by Fare Type, FY 2006-2010 EXPRESS Service



Since the start of the EXPRESS service, Figure 1-16 shows the growing commitment of York County commuters to Harrisburg and Maryland to use *rabbittransit*'s service for their journey to work in the dramatic increase in the percentage of riders purchasing monthly passes. By 2010, the EXPRESS monthly pass became the largest fare type used by EXPRESS riders.

Figure 1-16 Breakdown of EXPRESS Riders by Fare Type, FY 2006-2010





Paratransit

According to the National Transit Database Glossary, the term paratransit refers to various types of passenger transportation that are more flexible than conventional fixed-route transit but more structured than the use of private automobiles. This type of service does not follow fixed routes or schedules. It most often refers to wheelchair-accessible, demand response service. In this Plan, paratransit includes demand responsive, shared-ride service.

One of the provisions of the Americans with Disabilities Act (ADA) is a requirement that public transit be equally accessible to passengers with disabilities.

Paratransit service grew in the United States following the Americans with Disabilities Act which required complementary paratransit be provided alongside more urban public transit services in the United States which receive funding from the Federal Transit Administration (FTA). ADA complementary paratransit service is for people who are unable to access the bus stop by virtue of a disabling condition.

Paratransit service is available to populations other than ADA, such as the Medical Assistance Transportation Program (MATP). MATP is a county-based program that provides transportation to medical services for Medical Assistance consumers who do not have other transportation available. Senior citizens are also eligible to schedule transportation through paratransit, as is the general public.

Table 1-12 Paratransit Ridership, FY 2006-2010

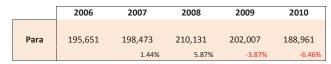
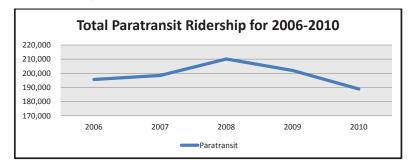


Figure 1-17 Paratransit Ridership, FY 2006-2010



As shown in the table and graph above, paratransit ridership in 2006-2010 experienced fluctuations very similar to fixed route ridership.



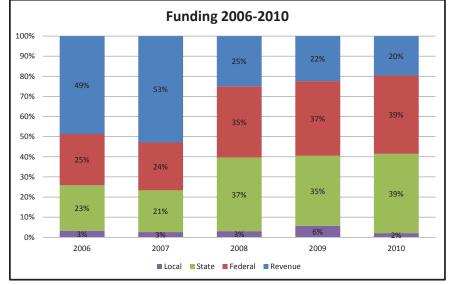
Funding and Operating Expenses

The following table and graph shows a breakdown of *rabbittransit*'s funding as reported in the Pennsylvania Public Transportation Annual Reports 2006-2010.

Table 1-13 rabbittransit Funding, FY 2006-2010

	2006	2007	2008	2009	2010
Revenue	4,169,800	5,315,300	1,895,000	1,838,000	1,568,000
Federal	2,181,200	2,392,000	2,677,000	3,041,000	3,105,000
State	1,943,600	2,082,600	2,778,000	2,857,000	3,144,000
Local	270,800	259,000	232,000	465,000	167,000
Total Funds	\$ 8,565,400	\$ 10,048,900	\$ 7,582,000	\$ 8,201,000	\$ 7,984,000

Figure 1-18 rabbittransit Funding, FY 2006-2010



The change in funding mix from 2007 to 2008 shown in the above graph stems primarily from the end of the York Hospital employee parking shuttle project mentioned in the Introduction. This project brought in just under \$100,000 in revenue per month in 2006 and 2007.

Under Operating Expenses, on the following graph, there is a shift between the Op & Mech Salaries and Wages categories and Admin Salaries and Wages in 2010. This shift is due to a change in category definitions for reporting purposes, not due to an actual change in expenditure for those categories.

The following table and graph shows a breakdown of *rabbittransit*'s operating expenses as reported in the Pennsylvania Public Transportation Annual Reports 2006-2010.

2009

2,821,000

2010

2,132,000

Op & Mech Salaries and Wages 3,899,700 4,268,700 2,760,000

Total Expenses	. , , ,	10,048,800	\$ 7,580,000 Expanses EV 2006-7	\$ 8,201,000	\$ 7,984,000
Other	898,500	930,600	785,000	1,169,000	1,027,000
Purchased Trans	205,000	552,600	369,000	736,000	530,000
Maintenance	485,600	497,800	418,000	411,000	491,000
Fuel Utilities	911,600	1,386,200	1,096,000	1,398,000	874,000
Fringes	1,844,000	2,094,600	1,963,000	1,430,000	1,838,000
Admin Salaries and Wages	321,000	318,300	189,000	236,000	1,092,000
Admin Salaries and					





Peer Comparison

The following tables show the results of *rabbittransit*'s performance compared to 12 peer transit agencies from across the nation in 33 areas of measure. These performance measures used data from 2008. Overall, *rabbittransit* performed better than the peer group average in 18 performance measures and worse in 15 performance measures. In five performance measures, *rabbittransit*'s performance fell outside the standard deviation from the peer group average. In 4 of these 5 measures outside the standard deviation, *rabbittransit* out performed its peers by a value greater than the standard deviation, earning the "thumbs up".

			Comparison with Peer Group Average	Within Standard Deviation	Indicator
		Passengers/ RVH	Worse	Yes	6
Ce		Passengers/ RVH - 5-yr trend rate of chng	Better	Yes	
mar	S	Operating Cost/ RVH	Better	Yes	5
Act 44 Performance	Measures	Operating Cost/ RVH - 5-yr trend rate of chng	Worse	Yes	5
Pel	lea	Operating Revenue/ RVH	Better	Yes	5
t 44 ,	2	Operating Revenue/ RVH - 5-yr trend rate of chng	Worse	Yes	5
Ac		Operating Cost/ Passenger	Better	Yes	5
		Operating Cost/ Passenger - 5-yr trend rate of chng	Better	Yes	5
Efficiency		Operating Cost/ RVM	Better	Yes	5
Effi		Operating Cost/ VOMS	Better	Yes	5
Service	Effectiveness	Passenger Miles/ RVH	Worse	No	(j)
Cost	Effectiveness	Operating Cost/ Passenger Mile	Better	Yes	4

Under the Service Effectiveness measure of Passenger Miles/ RVH, it appears that *rabbittransit*'s performance is less than desirable. However, upon closer examination of this performance measure, it is the structure of the *rabbittransit* route system itself that renders this a questionable measure of service effectiveness. This measure looks at the length of a passenger's trip (average passenger miles) to the length of time that a bus is in service (revenue vehicle hours). Hence, the measurement favors longer passenger trips. The structure of *rabbittransit*'s route system makes it impossible for a passenger to ride from one side of the service area to the other without transferring to at least one other bus. *rabbittransit* riders tend to

make shorter trips on more than one vehicle. This results in worse than peer group average performance outside the standard deviation for this measure; however, it earns the "thumbs neutral" as a measure of performance for *rabbittransit*.

		Comparison with Peer Group Average	Within Standard Deviation	Indicator
	RVM per Capita	Worse	Yes	6
ita)	RVH per Capita	Worse	Yes	6
(per Capita)	Operating Costs per Capita	Better	Yes	6
ed)	Passengers per Capita	Worse	Yes	6
Service Area	VOMS/ 10,000 Population	Worse	Yes	6
rvice	Local Funding per Capita	Worse	Yes	5
Se	State Funding per Capita	Worse	Yes	5
	Federal Funding per Capita	Worse	Yes	6
	Transportation Operating Cost/ RVH	Worse	Yes	5
	Transportation Operating Cost/ Total Operating Cost	Better	No	6
Ą	RVH/ Vehicle Hour	Better	Yes	6
e, G8	RVH/ Transportation Employee	Worse	Yes	6
nanci	Transportation Operating Cost/ Passenger	Better	Yes	6
Transportation, Maintenance, G&A	Maintenance Operating Cost/ Vehicle Miles	Better	Yes	6
	VOMS*/ VOAMS**	Better	Yes	6
	Vehicle Miles/ VOMS	Worse	Yes	6
	Vehicle Miles/ Maintenance Employee	Better	No	6
	Vehicle Miles/ Gallon of Fuel (Gasoline, Bio-diesel, Diesel)	Worse	Yes	6
	Vehicle Miles/ Major Road Call	Better	Yes	6
	G&A Expense/ Vehicle Mile	Better	No	6
	G&A Expense/ Total Operating Cost	Better	No	6



Transit Development Plan Chapter 2 – Route Evaluation



Transit Development Plan rabbittransit. Chapter 2 - Route Evaluation

Chapter 2 - Route Evaluation

This chapter of the Plan involves taking a close look at the individual fixed routes and paratransit service provided by *rabbittransit* by analyzing data for a shorter, more specific time period at the most detailed level possible. The data that appears in this section is for the eight months (243 days) of July 2010 through February 2011 and is referred to as "the study period" or "the data period". At the time that the data was collected for this section of the Plan, a full 12-month period of data was not available.

rabbittransit is able to collect rider, fare, and date/time data for the fixed routes at the individual bus stop level through integration of three data collection systems: Trapeze Scheduling software that establishes the bus stops and sequencing; GFI Genfare, the farebox or physical fare collection device; and the AVL/CAD system that associates each fare with the corresponding bus stop. The AVL/CAD system also has Automatic Passenger Counters or APC's at each passenger door to collect boardings and alightings for each bus stop.

Using the Trapeze Scheduling system, each route is defined with bus stops in sequential order according to the direction of travel. The stop sequences are further defined by trip times for each leg of the route, and certain stops are defined by trip time and are used for measuring on-time performance or schedule adherence. This schedule and time information is used by the AVL/CAD system to update real-time public displays on LED boards and mobile applications.

By interfacing all three data collection programs through the AVL/CAD system, it is possible to collect ridership, fare and schedule adherence information by passenger, by bus stop, by hour, by day, by fare type.

The data collected for the fixed routes, using the integration of all three data collection technologies, is shown later in this chapter in the individual route dashboards. For paratransit, the data used for evaluation is from the same time period; however, it is from the Trapeze Scheduling software only.

Public involvement was also a key point in data collection for this chapter. During the development of the Plan, a variety of focus group interviews with rabbittransit's fixed route operators, customer service and dispatch personnel were conducted. A variety of data findings were verified through direct observation while riding on fixed route and paratransit vehicles and speaking with transit riders on buses and at the Transfer Center, Survey information from *rabbittransit*'s on-going published fixed route and paratransit surveys, as well as a general population survey conducted as part of the development of the Plan, was also used.

Fixed Route Service

Total Ridership

To begin evaluating the study period data, *rabbittransit*'s total ridership for the period was broken down. During the study period or 243 days, there were a total of 962,777 individual trips taken on rabbittransit's fixed route buses. These individual trips are referred to as "riders" or "passengers".

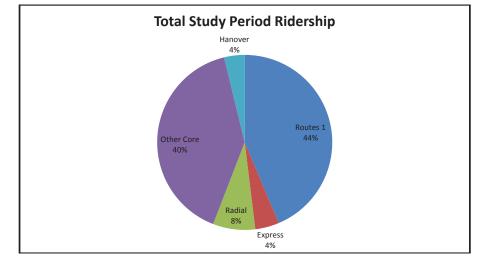
The pie chart on the right, Figure 2-1, shows the breakdown for the total study period ridership by route service type. The same type of chart of was shown in Chapter 1 for FY 2010 (July 2009 – June 2010). The study period data covers eight months of FY 2011, and the ridership by service type percentages for the study period data are nearly identical to FY 2010.

The table and map on the following pages (Table 2-1and Map 2-1) show how the ridership data falls by individual route by hour. The individual routes are grouped by the same service types as in Chapter 1.

Table 2-1is color-coded from zero riders in red through the highest level or peak ridership in the darkest green with white numbers. The two hours with the two highest ridership levels are outlined, indicating the peak ridership hours. This table also shows the calculations for total route ridership, average daily ridership, and peak hour ridership that will appear on the route dashboards later in this chapter.

From this table, it is easy to see that the majority of routes have an AM peak hour ridership during the hour of 7am and a PM peak hour ridership at 3pm.

Figure 2-1 Total Study Period Ridership by Service Type



This same data is shown in Map 2-1. Here, the route ridership levels by hour are shown for the 22-hour period from 4 am to 2am. The color-code follows the same scale as Table 2-1with red as the lower ridership levels, moving to yellow and then on to green as the ridership levels increase or decrease throughout a typical day.

From this map, it is easy to see that the Routes 1 and Other Core routes have the highest ridership for the most hours of the day, and that the Radial and Hanover routes ridership levels are comparatively lower.



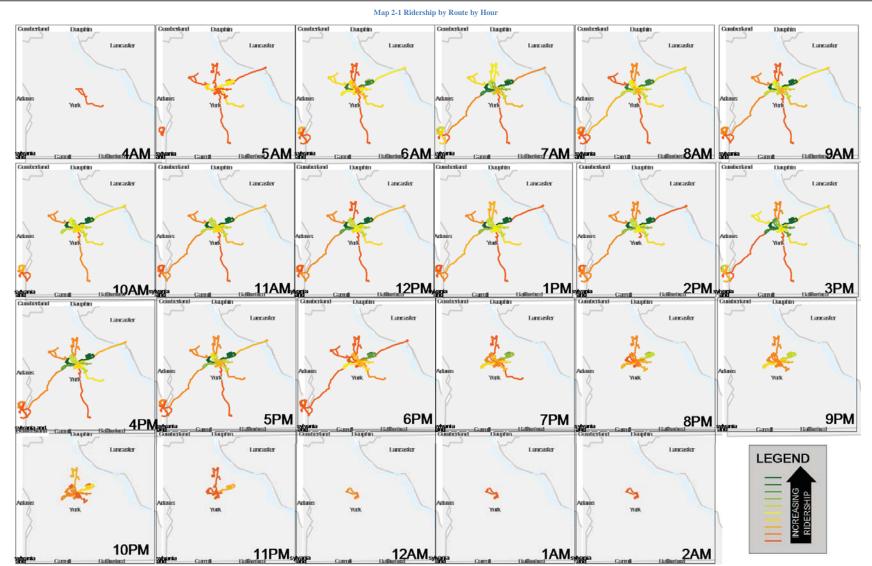
4am 0	4am 211 5 9444 6 55994 7 88929
6 7261 4157 556 424 403 181 192 134 149 251 260 103 280 103 103 2	6 55994
0 11141 4977 670 493 150 324 306 366 288 405 396 103 49 180 17 113 210 135 20 277 34 368 47 474 378 277 9 411 4907 744 380 110 210 302 10 110 110 110 110 110 110 120 <td></td>	
8 764 717 741 380 115 210 303 179 264 349 261 120 120 111 111 111 111 111 110 111 111 111 111	7 88929
0 9411 809 9463 329 141 251 329 1645 271 343 262 270 129 664 779 0 0 0 0 0 444 62 90 23 940 63 0 1 133 10 8765 8774 9536 633 187 203 167 303 317 295 264 174 175 945 0 0 168 804 60 83 685 14 220 100 0 168 804 60 83 650 14 266 905 0 14 12 953 995 10339 233 100 125 230 160 125 126 125 126 126 126 126 126 126 126 126 126 126 126 126 126 126 126 126 126 126 <	
0 8765 8974 956 263 117 240 1787 1916 303 117 290 246 1747 175 945 0 0 165 0 144 62 916 22 112 100 100 101 100 101 100 101 100 101 101 101 101 <td>8 53179</td>	8 53179
10 963 952 970 245 181 281 185 322 311 286 303 156 121 12 12 133 245 133 253 303 223 303 253 303 253 303 156 121 121 10 107 103 103 233 233 313 223 313 223 313 223 303 156 121 101 101 101 101 <td>9 58513</td>	9 58513
11 995 103 227 199 3062 192 226 498 312 272 208 142 800 0 157 805 4 66 736 14 60 836 60 736 74 805 74 60 736 74 805 74 756 756 756 756 756 756 756 756 756 756 756 756 756 756 756 756 756 756 757 756 756 756 756 757 756 756 757 756 <	10 57889
1100 11975 93 160 170 266 306 466 366 270 260 161 1975 158<	11 59754
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1 1	13 70172
4 11957 11252 11365 3772 1331 2668 154 1603 3418 5350 2716 188 5350 450	14 73536
1 9915 8446 3186 1345 1880 129 1157 2963 3983 3094 200 120 50 67 56 917 533 465 14 7 49 242 418 23 3 2287 146 6 5569 7370 4975 1625 851 1344 960 839 1801 2063 1752 1414 1178 375 27 111 0 833 512 155 0 0 0 0 11 366 1 49 242 418 23 3 287 447 7 3370 4975 486 4105 153 160 356 11 153 465 14 7 49 242 418 23 3 287 447 7 4329 5486 4119 1545 513 110 163 1120 875 167 16 16 16 16 16 16 16 16 16 16 16	15 11607
6 7370 4975 162 851 1344 960 839 1801 203 1752 111 0 83 512 159 0 0 11 36 1 0 322 456 7 4329 5486 4119 1154 527 110 158 120 7 111 0 83 512 159 0 0 0 11 36 1 0 322 456 7 4329 5486 4119 1154 527 844 603 637 109 154 153 112 875 0 7 0 0 3 0 </td <td>16 82881</td>	16 82881
0 4329 5486 4119 1154 527 884 603 637 1109 1546 1583 1120 875 0 0 7 0 0 3 0	17 58644
3 3688 4366 3550 1439 546 804 604 612 1418 1361 1179 992 617 0 0 457 0	18 33614
9 3328 3509 3605 1239 420 836 484 1553 891 1637 122 995 606 0	19 24638
10 755 241 1508 1288 79 194 276 0 149 457 542 410 161 0 1442 0 <	20 21883
11 5 0	21 21361
	22 7910
<u>12</u> 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	23 1685
	0am 732
1am 0<	1 100
2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	2 234
SUM 142756 130789 133992 49145 19611 38430 28764 28277 42449 59872 48179 39611 22299 15420 11900 3086 3076 8517 20453 7728 1972 794 13795 1145 13084 3965 3350 30472 1076	SUM 96277
ADR 587 538 551 202 81 158 118 116 175 246 198 163 92 63 49 13 13 35 84 32 8 3 57 5 54 16 14 125 44	ADR 3962.0
PkHr 62 49 48 20 8 21 14 15 22 32 23 20 9 10 6 5 9 8 5 2 1 16 2 15 4 6 43 11	PkHr 478

SUM – the total ridership for the route during the study period

ADR - Average Daily Ridership; the total ridership divided by the 243 days in the study period

PkHr - the highest number of riders during any hour period divided by the 243 days in the study period







rabbittransit. Transit Development Plan Chapter 2 - Route Evaluation

Transfers

Because of the structure of rabbittransit's route system, riders often have two- or three-seat rides to get to their destinations. In other words, riders may have to change buses once or even twice during a single trip. Thus, route connections or transfers are an important part of a rider's experience. Transfer data was collected for the study period timeframe and painstakingly analyzed to track rider patterns from origin routes to destination routes.

Table 2-2 Transfers – Percent of Ridership

Transfers by Route by Destination

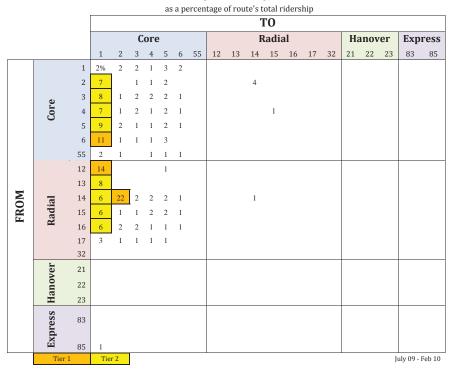


Table 2-2shows these connections as a percentage of the FROM route's total ridership. The three largest patterns are 22% of all Route 14's riders transferred to Route 2 to continue to their destination during the study period, 14% of Route 12's riders transferred to Route 1, and 11% of Route 6 riders transferred to Route 1 also.

Table 2-3, the same information is shown but as a percentage of the origin route's total transfers. Again, Route 14 to Route 2, Route 12 to Route 1, and Route 6 to Route 1 are key transfers, along with Route 13 to Route 1 and Route 21 to Route 22.

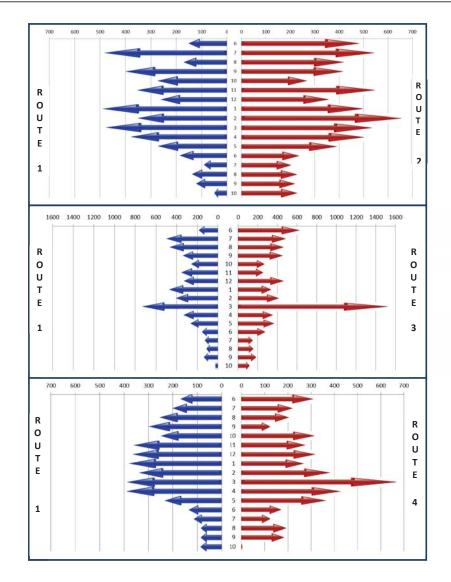
Table 2-3 Transfers - Percent of Transfers from Route

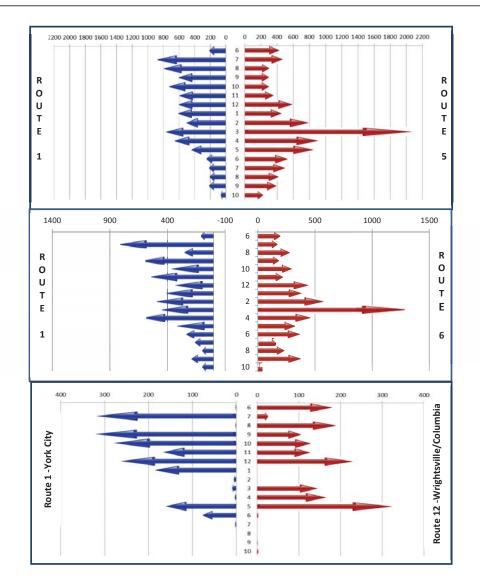
Transfers by Route by Destination

			as a percentage of all transfers from the route																			
		ТО																				
			Core								Radial							Hanover			Express	
			1	2	3	4	5	6	55	12	13	14	15	16	17	32	21	22	23	83	85	
		1	14%	15	15	10	22	13		4	2	2	2									
		2	42	1	8	6	13	2				26	1									
	e	3	49	7	10	10	15	7					1									
	Core	4	45	6	13	7	16	9				1	3									
	0	5	51	13	8	6	10	7				2	2									
		6	63	3	8	5	16	2				1	2									
FROM		55	38	10	6	13	21	10	1			1										
	I	12	89	1	2	0	4	1		2		1										
		13	91	1	2	2	2	2														
		14	16	62	6	5	6	2				3										
	Radial	15	46	6	11	15	12	5				1			1							
	Rá	16	42	15	14	8	6	7				1	2	1			1	2				
		17	40	10	15	15	7	4				1	6				1					
		32	36	14	9	5	18	18														
	er	21		1	1			4						17	4		5	65	1			
	VOI	22												36			49	12	3			
	Hanover	23																				
	Express 1																					
		83	36	12	8	2	17	22			1		1		1							
	dx																					
		85	47	4	17	5	16	3		3	4									1	E 1 10	
	Tie	r I	Tier	r 2																July 09 -	Feb 10	

The figures on the following pages are another way of looking at the transfer data. These graphics show the number of transfers between two routes by hour for the study period. The first graphic, for example, shows the number of transfers between Route 1 and Route 2 for individual hours from 6am to 10pm during the study period. The blue arrows show the number of transfers from Route 2 to Route 1 and the red arrows show the number of transfers from Route 1 to Route 2.

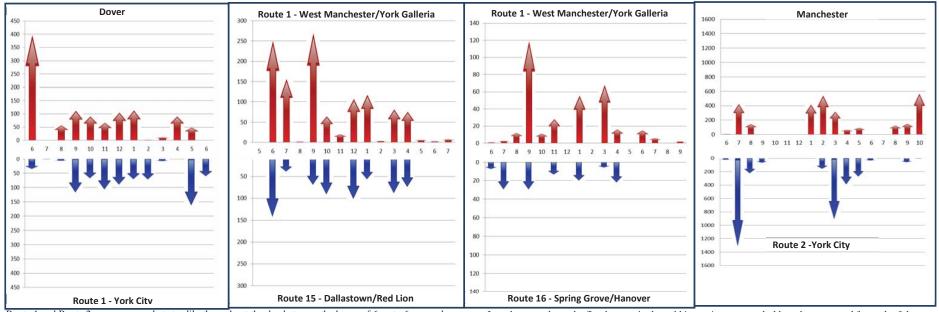






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Route 1 and Route 2 occurs somewhat steadily throughout the day between the hours of 6am to 6pm, as do the majority of transfers from the Other Core routes (3 through 6) to the Routes 1. Transfers from the Routes 1 to the Other Core routes (3 through 6), however, have an afternoon peak during the 3pm hour. The transfers between the Routes 1 and the Radial routes each have individual peak periods.

There is also a significant transfer pattern between Route 2 and Route 14. While only 4% of Route 2's ridership, or 26% of all the transfers from Route 2, transfers to Route 14, just under one-fourth of Route 14's ridership, or 62% of all transfers from Route 14, transfer to Route 2. Broken out by hour, the largest amount of these transfers occurs during the 7am hour, followed by the 3pm hour.

The importance of these transfer patterns comes into play later in this chapter in discussing schedule adherence/on-time performance and later in proposed route modifications.

In order to evaluate the fixed routes in the rabbittransit system, a dashboard was created for each of the routes. Each dashboard has a map showing the path that the route follows, the individual stops along the route with the number of riders boarding and alighting at each stop during the study period. There is also various information and statistics for that route such as total population, employment and other populations in the service area buffer. The buffer areas vary by service type group: Core routes have a buffer of 1/4 mile. Radial routes have a ¹/₂ mile buffer, and EXPRESS routes have a 1 mile buffer around the bus stop area. The 30 individual route dashboards are shown on the following 15 pages.

It is important to note while looking at the dashboards that each one is scaled individually for the boarding and alighting bar graphs shown by bus stop along the route. Refer to the bottom line in the Schedule Adherence data in the box in the upper right hand corner for the total number of riders boarding and alighting when comparing one route to another.

