









All of the dashboard information was then compiled into the tables shown on Pages 9-11. In compiling the dashboard data, it became apparent that certain routes have unique characteristics that separate them from the rest of their service type group. The routes that fall under the unique designation are Route 55, Route 32, Route 83, and Route 85. These unique routes were not included in the average calculations for their service type groups.

Table 2-4shows the Performance Measures for each route along with the Performance Measure Averages for each service type group and sub-group. Values that indicate positive performance compared to the average for the service type group are shown in black, while values that indicate negative performance compared to the service type group average are shown in red.

Performance Measures

Ridership Measures

ADR – Average Daily Ridership was calculated by dividing the total ridership for the eight month data period by the number of days (243) in those eight months.

PkHr – Peak Hour Ridership shows the highest number of riders during any hour during the eight month data period divided by the number of days (243) in those eight months.

AMPk – AM Peak Hour shows the hour between midnight and noon with the highest number of riders.

PMPk – PM Peak Hour shows the hour between noon and midnight with the highest number of riders.

Fiscal Measures

RevHrs – Revenue Hours shows the total number of hours when a bus traveling the particular route was in operation and available to the public for service during the data period.

Rate – Rate refers to the average rate of expense incurred per revenue hour.

Riders/RevHr – Riders per Revenue Hour is calculated by dividing the total ridership for the route for the eight month data period by the number of revenue hours for the route during the same period.

Cash – Cash shows the percentage of fares that were paid with cash for the eight month data period.

Expense – Expense shows the total amount of operational expenses incurred for the route during the eight month data period. This amount was calculated by taking the Rate times the number of Revenue Hours for the particular route during the eight month data period.

Revenue – Revenue shows the total amount of revenue collected at the farebox box point for the route during the eight month data period. This amount was calculated by adding the total amount of fares collected by fare type times the individual user rate for each fare type.

Farebox Recovery – Farebox Recovery is a rate or percentage calculated by dividing the total amount of expense for the route by the total amount of revenue for the route. This rate indicates the level at which the operational expenses of a route are covered by fares paid by the rider.

Expense/Rider – Expense per Rider is calculated by dividing the Expense shown previously by the total ridership for the route during the eight month data period.

Revenue/Rider - Revenue per Rider is calculated by dividing the Revenue shown previously by the total ridership for the route during the eight month period.

Subsidy/Rider – Subsidy per Rider is calculated by subtracting the Revenue/Rider from the Expense/Rider.

Schedule Adherence Measures

On-Time – On-Time Performance shows the percentage of times during the eight month data period that the bus arrived at a designated timepoint on the route at the time it is scheduled to arrive or "on-time". The "on-time" designation is operationally defined as at the exact scheduled time and up to three minutes beyond that exact time.

Late - Late shows the percentage of time that the bus arrived at a designated time point on the route more than three minutes beyond the scheduled time during the eight month data period.

Early – Early shows the percentage of time that the bus arrived at a designated time point on the route before the scheduled time during the eight month data period.

Route Skeleton Characteristics

Table 2-5 shows the Route Skeleton Characteristics such as route length, number of stops and frequency for each route, along with incoming and outgoing connections with other transit routes.

Stops - Stops shows the number of designated bus stops along the route.

Miles - Miles shows the number of miles covered by the route roundtrip.

Stops/Mi – Stops per Mile is calculated by dividing the number of designated bus stops by the number of miles covered by the route.

Trip Time – The trip time for each route is determined by the scheduled amount time given for the bus to complete a roundtrip.

Vehicle Time – The vehicle time is the amount of time that it takes a car to drive the bus route.

TtV – The "Trip to Vehicle" ratio is calculated by dividing the Trip Time by the Vehicle Time, showing the ratio of bus travel to car travel for the same route.

Frequency – Frequency shows the time frequency that a bus is running on that route.

Incoming and Outgoing - Each route's transfer patterns are outlined here with the Core routes shown in blue, Radial routes in red, and Hanover routes in green. The most significant patterns are bolded.

Demographic Information

Table 2-6 shows the total population covered in the service area buffers for each route, along with the number of various service target populations within those buffer areas. The target populations are also expressed as a percentage of the total population within those buffer areas. The term LEP refers to the Limited English Proficiency population, also known as English Deficient.

Table 2-4 Dashboard Data - Ridership, Fiscal and Schedule Adherence Measures

	Route	Riders	ADR	PkHr	AMPk	PMPk	RevHrs	Rate	Riders/RevHr	Cash	Expense	Revenue	Farebox Recovery	Expense/Rider	Revenue/Rider	Subsidy/Rider	On Time	LLO	LLD	Route	1
1	1A	142,756	587	62	7:00	3:00	5337.5	\$ 66.04	27	66%	\$352,488.50	\$143,513.17	41%	\$2.47	\$1.01	\$1.46	45%	42%	21%	1A	ч
soute 1	1B	130,789	538	49	11:00	1:00	4940.7	\$ 66.04	26	62%	\$326,283.83	\$129,399.75	40%	\$2.49	\$0.99	\$1.51	62%	42%	37%	1B	lou
	1C	133,992	551	48	11:00	3:00	5642.4	\$ 66.04	24	61%	\$372,624.10	\$134,072.78	36%	\$2.78	\$1.00	\$1.78	56%	40%	14%	1C	:e 1
	AVG		559	53					26	63%			39%	\$2.58	\$1.00	\$1.58	54%	41%	24%	AVG	_
	2A	49,145	202	20	7:00	12:00	1799.4	\$ 66.04	27	44%	\$118,832.38	\$39,194.48	33%	\$2.42	\$0.80	\$1.62	45%	34%	46%	2A	
	2B	19,611	81	8	11:00	12:00	1781.2	\$ 66.04	11	51%	\$117,630.45	\$16,123.79	14%	\$6.00	\$0.82	\$5.18	56%	56%	20%	2B	
	3A	38,430	158	21	7:00	3:00	3124.2	\$ 66.04	12	46%	\$206,322.17	\$35,534.37	17%	\$5.37	\$0.92	\$4.44	61%	63%	23%	3A	
e	3B	28,764	118	14	9:00	3:00	2106.8	\$ 66.04	14	43%	\$139,133.07	\$23,354.51	17%	\$4.84	\$0.81	\$4.03	70%	35%	7%	3B	S
Cor	4A	28,277	116	15	7:00	1:00	1963.0	\$ 66.04	14	56%	\$129,636.52	\$23,866.30	18%	\$4.58	\$0.84	\$3.74	64%	58%	10%	4A	ini
lar (4B	42,449	175	22	11:00	3:00	3269.0	\$ 66.04	13	57%	\$215,884.76	\$37,211.63	17%	\$5.09	\$0.88	\$4.21	66%	40%	6%	4B	lar
ш.	5A	59,872	246	32	7:00	3:00	3348.0	\$ 66.04	18	45%	\$221,101.92	\$49,500.84	22%	\$3.69	\$0.83	\$2.87	58%	54%	0%	5A	Cor
S	5B	48,179	198	23	7:00	3:00	4304.1	\$ 66.04	11	51%	\$284,242.76	\$43,949.71	15%	\$5.90	\$0.91	\$4.99	69%	43%	3%	5B	re
	6A	39,611	163	20	7:00	3:00	1780.5	\$ 66.04	22	48%	\$117,584.22	\$33,187.00	28%	\$2.97	\$0.84	\$2.13	67%	3 1%	16%	6A	
	6B	22,299	92	9	8:00	3:00	1734.3	\$ 66.04	13	53%	\$114,533.17	\$17,577.90	15%	\$5.14	\$0.79	\$4.35	77%	35%	9%	6B	
	AVG		155	18					16	49%			20%	\$4.60	\$0.84	\$3.75	63%	45%	14%	AVG	
sc	55	3,211	17	4	0:00	7:00	598.6	\$ 66.04	5	82%	\$39,531.54	\$21,956.00	56%	\$12.31	\$6.84	\$5.47	71%	83%	7%	55	Σ
Σ	1T	24,273	100	52	7:00	3:00	307.8	\$ 66.04	79	0%	\$20,327.11	\$17,703.33	87%	\$0.84	\$0.73	\$0.11	49%	35%	55%	1T	isc
	12	15,420	63	9	6:00	3:00	1824.1	\$ 66.04	8	54%	\$120,463.56	\$13,030.93	11%	\$7.81	\$0.85	\$6.97	45%	61%	40%	12	
	13	11,900	49	10	7:00	3:00	2073.8	\$ 66.04	6	43%	\$136,953.75	\$11,816.51	9%	\$11.51	\$0.99	\$10.52	35%	71%	72%	13	
a	14E	3,086	13	6	7:00	11:00	838.7	\$ 66.04	4	24%	\$55,387.75	\$2,250.27	4%	\$17.95	\$0.73	\$17.22	51%	22%	84%	14E	Si
lad	14G	3,076	13	5	7:00	3:00	1345.9	\$ 66.04	2	50%	\$88,883.24	\$3,140.65	4%	\$28.90	\$1.02	\$27.87	51%	66%	38%	14G	nila
ar F	14S	8,517	35	9	7:00	3:00	897.2	\$ 66.04	9	31%	\$59,251.09	\$6,404.00	11%	\$6.96	\$0.75	\$6.20	57%	74%	20%	14S	ar R
mil	15	20,453	84	8	8:00	4:00	2330.3	\$ 66.04	9	61%	\$153,893.01	\$21,321.46	14%	\$7.52	\$1.04	\$6.48	52%	49%	19%	15	adi
Si	16	7,728	32	5	8:00	1:00	1320.9	\$ 66.04	6	64%	\$87,232.24	\$8,811.71	10%	\$11.29	\$1.14	\$10.15	52%	86%	19%	16	al
	17	1,972	8	2	10:00	4:00	768.2	\$ 66.04	3	65%	\$50,731.93	\$2,309.90	5%	\$25.73	\$1.17	\$24.55	45%	53%	33%	17	
	AVG		37	7					6	49%			8%	\$14.71	\$0.96	\$13.75	49%	60%	41%	AVG	
	32	794	3	1	11:00	4:00	960.8	\$ 66.04	1	0%	\$63,451.23	\$4,585.46	7%	\$79.91	\$5.78	\$74.14	61%	33%	33%	32	
	21A	13,795	57	16	7:00	3:00	1737.7	\$ 66.04	8	50%	\$114,757.71	\$12,752.57	11%	\$8.32	\$0.92	\$7.39	55%	17%	33%	21A	
5	21B	1,145	5	2	8:00	2:00	704.3	\$ 66.04	2	72%	\$46,511.97	\$1,019.75	2%	\$40.62	\$0.89	\$39.73	63%	23%	20%	21B	т
OVE	22A	13,084	54	15	7:00	3:00	2012.4	\$ 66.04	7	55%	\$132,898.90	\$11,497.50	9%	\$10.16	\$0.88	\$9.28	58%	17%	37%	22A	land
lan	22B	3,965	16	4	11:00	12:00	788.6	\$ 66.04	5	81%	\$52,079.14	\$3,260.57	6%	\$13.13	\$0.82	\$12.31	72%	7%	4%	22B	ove
-	23	3,350	14	6	7:00	3:00	344.9	\$ 66.04	10	39%	\$22,777.20	\$3,111.11	14%	\$6.80	\$0.93	\$5.87	50%	0%	0%	23	7
	AVG		29	9					6	59%			8%	\$15.81	\$0.89	\$14.92	60%	13%	19%	AVG	
Ь	83	30,472	125	43	6:00	4:00	3659.2	\$ 66.04	8	6%	\$241,653.57	\$145,522.55	60%	\$7.93	\$4.78	\$3.15	54%	5%	58%	83	\times
×	85	10,760	44	11	6:00	4:00	3450.6	\$ 66.04	3	30%	\$227,877.62	\$44,942.41	20%	\$21.18	\$4.18	\$17.00	53%	5%	14%	85	Р
											System-Wide Fare	box Recovery Avg	21%			AVG Late Leaving TO	C (Bold)	43%			

Table 2-5 Dashboard Data - Route Skeleton Characteristics

	Route	Stops	Miles	Stops/Mi	Trip Time	Vehicle Time	Bus-to-Vehicle Comparison	Frequency	Incoming "Riders come from"	Outgoing "Riders go to"	Route		
-	1A	42	11.40	4	60	40	1.50	Half-hour	2B, 3A, 3B , 4A, 4B, 5A, 5B, 6A, 6B, 13 , 15 , 16 , 17	2A, 13	1A	-	
Ite :	1B	59	15.45	4	90	46	1.96	Hourly	2A, 2B, 3A, 3B, 4A, 4B, 5A, 6B, 12, 15, 16	5A, 12	1B	No.	
Sou	1C	62	14.60	4	90	41	2.20	Hourly	2B, 5, 12	3A, 4B, 5A, <mark>12</mark>	1C	te 1	
	AVG	54		4							AVG		
	2A	31	5.24	6	30	19	1.58	Half-hour	1A, 3B, 5, 14G, 14S	1B , 5A, 14G, 14S	2A		
	2B	27	4.40	6	30	22	1.36	Half-hour		1A, 1B, 1C 5A, <mark>32</mark>	2B		
	3A	44	7.90	6	60	32	1.88	Hourly	1C, 3B, 4B, 6B, 17	1A, 1B , 4B	3A		
e.	3B	33	4.90	7	30	18	1.67	Half-hour	4A	1A, 1B, 2A, 3A	3B	S	
Cor	4A	39	6.20	6	30	28	1.07	Hourly		1A, 1B, 3B, 4B, 5A	4A	Simil	
lar	4B	39	10.50	4	60	37	1.62	Hourly	1C, 3A, 4A, 17	1A, 1B, 3A, 5A	4B	ar (
i Li	5A	47	9.00	5	60	29	2.07	Half-hour	1B, 1C, 2A, 2B, 4A , 4B, 6B, 15	1A, 1B, 1C, 2A	5A	Core	
5	5B	36	8.90	4	60	31	1.94	Multiple	1B, 6A	1A, 1C, 2A	5B	(U	
	6A	26	5.40	5	30	21	1.43	Hourly	16	1A, 1C, 5B	6A		
	6B	31	4.80	6	30	22	1.36	Hourly		1A, 1B, 3A, 5A	6B		
	AVG	35		5							AVG		
isc	55	30	12.70	2	60	39	1.54	Hourly			55	≤	
Σ	1T	5	3.30	2	25	13	1.92	AM/PM runs			1T	sc	
	12	35	21.40	2	60	48	1.25	Hourly	1B, 1C	1B, 1C	12		
	13	40	18.10	2	60	48	1.25	Multiple	1A	1A	13		
_	14E	49	21.00	2	60	52	1.15	Hourly		2A	14E	S	
adia	14G	27	14.50	2	60	37	1.62	Hourly	2A	2A	14G	imi	
r R	14S	37	14.50	3	60	37	1.62	Hourly	2A	2A	14S	lar	
nila	15	93	20.90	4	90	68	1.32	90 min	16	1A, 1B, 1C, 5A	15	Rad	
Sir	16	39	38.00	1	120	70	1.71	2 - 3 hours		1A, 1B, 1C, 6A, 22A	16	ial	
	17	24	29.60	1	90	56	1.61	3 times per day	1A, 1C, 3A		17		
	AVG	43	3 2			AVG							
	32	13	4.20	3	30	16	1.88	Hourly			32		
	21A	31	5.60	6	40	21	1.90	40 min			21A		
5	21B	11	3.00	4	20	10	2.00	60 min			21B	т	
ove	22A	33	6.70	5	40	29	1.38	Hourly	16		22A	land	
lan	22B	12	5.20	2	25	13	1.92	Hourly			22B	ove	
-	23	10	11.90	1	50	42	1.19	AM/PM runs			23	7	
	AVG	19		3							AVG		
д.	83	13	54.80	0	150	80	1.88	70 min			83	\times	
×	85	19	37.20	1	211	84	2.51	70 min			85	Р	

Table 2-6 Dashboard Data - Demographics in Surrounding Area

	Route	Рор	Workers	%	Jobs	Under 18	%	Over 64	%	Zero-Car	%*	Minority	%	LEP	%	Poverty	%	PwD	%	Route	
1	1A	26,996	13,508	50%	19,311	6,803	25%	3,605	13%	1,940	7%	6,759	25%	755	3%	3,898	14%	9,903	37%	1A	-
te	1B	35,039	17,046	49%	23,423	8,819	25%	4,555	13%	2,481	7%	7,432	21%	966	3%	4,819	14%	11,490	33%	1B	lou
Sou	1C	36,134	17,647	49%	25,939	9,150	25%	4,679	13%	2,481	7%	7,432	21%	966	3%	4,862	13%	11,709	32%	1C	te 1
	AVG																			AVG	
	2A	22,560	10,045	45%	14,695	5,574	25%	3,265	14%	1,922	9%	7,358	33%	864	4%	4,204	19%	2,082	9%	2A	
	2B	20,810	9,905	48%	13,012	5,835	28%	2,203	11%	2,434	12%	9,236	44%	883	4%	5,618	27%	9,311	45%	2B	
	3A	22,174	11,476	52%	17,453	5,664	26%	2,674	12%	1,667	8%	5,646	25%	682	3%	3,404	15%	9,311	42%	3A	
e	3B	16,029	7,782	49%	12,174	4,306	27%	1,789	11%	1,799	11%	6,629	41%	589	4%	3,948	25%	6,629	41%	3B	S
Cor	4A	28,150	13,158	47%	16,884	7,143	25%	3,507	12%	2,542	9%	8,705	31%	1,030	4%	4,991	18%	10,387	37%	4A	imi
lar	4B	27,784	13,837	50%	15,119	7,292	26%	3,451	12%	2,462	9%	8,556	31%	832	3%	5,355	19%	11,655	42%	4B	ar
ini	5A	21,667	10,544	49%	8,462	5,343	25%	2,781	13%	1,627	8%	5,222	24%	564	3%	3,309	15%	7,840	36%	5A	Con
S	5B	31,809	16,175	51%	13,931	8,392	26%	3,872	12%	2,289	7%	8,040	25%	883	3%	4,834	15%	10,808	34%	5B	rD .
	6A	18,872	9,222	49%	13,940	4,907	26%	2,643	14%	1,681	9%	5,712	30%	720	4%	3,605	19%	7,207	38%	6A	
	6B	20,949	9,967	48%	11,307	5,815	28%	2,346	11%	2,347	11%	8,930	43%	788	4%	5,397	26%	9,020	43%	6B	
	AVG																			AVG	
isc	55	20,348	9,956	49%	15,244	5,444	27%	2,344	12%	1,906	9%	7,835	39%	701	3%	4,399	22%	7,645	38%	55	≤
Σ	1T	7781	3651	47%	11,977	2154	28%	768	10%	1438	18%	3660	47%	527	7%	2304	30%	4117	53%	1T	SC
	12	23,186	12,768	55%	10,886	5,823	25%	2,991	13%	234	1%	747	3%	139	1%	729	3%	4,544	20%	12	Sir
	13	18,751	10,415	56%	7,678	3,980	21%	2,885	15%	344	2%	1,103	6%	131	1%	1,008	5%	5,102	27%	13	
<u>ia</u>	14E	67,005	32,609	49%	37,190	17,417	26%	8,407	13%	4,218	6%	17,733	26%	1,990	3%	10,316	15%	22,927	34%	14E	
Rad	14G	15,336	8,217	54%	12,279	3,984	26%	1,968	13%	232	2%	987	6%	125	1%	958	6%	3,676	24%	14G	nila
ar F	14S	15,336	8,217	54%	13,567	3,984	26%	1,968	13%	232	2%	987	6%	125	1%	958	6%	3,676	24%	14S	Ir R
imi	15	75,075	38,353	51%	30,349	19,509	26%	8,448	11%	4,130	6%	15,276	20%	1,736	2%	10,141	14%	25,200	34%	15	adia
S	16	64,218	33,234	52%	29,466	16,505	26%	7,648	12%	3,137	5%	12,144	19%	1,344	2%	7,890	12%	19,200	30%	16	a
	17	42,906	21,422	50%	19,758	11,423	27%	5,288	12%	3,276	8%	11,840	28%	1,191	3%	7,689	18%	17,199	40%	17	
	AVG																			AVG	
	32	18833	9958	53%	2614	4671	25%	2556	14%	741	4%	3672	19%	294	2%	2432	13%	6194	33%	32	
	21A	20,235	11,413	56%	8,346	5,210	26%	2,103	10%	177	1%	355	2%	47	0%	872	4%	4,184	21%	21A	
5	21B	12,981	7,419	57%	3,922	3,209	25%	1,432	11%	83	1%	206	2%	23	0%	370	3%	2,574	20%	21B	т
10/6	22A	22,780	12,893	57%	8,410	5,810	26%	2,419	11%	182	1%	406	2%	47	0%	926	4%	4,683	21%	22A	anc
Har	22B	17,867	10,321	58%	4,364	4,444	25%	1,839	10%	29	0%	311	2%	24	0%	557	3%	3,483	19%	22B	ver
_	23	20,081	11,244	56%	4,646	5,142	26%	2,146	11%	168	1%	324	2%	46	0%	775	4%	4,104	20%	23	,
	AVG																			AVG	
Р	83	54,658	26,237	48%	24,973	14,694	27%	6,660	12%	4,009	7%	16,246	30%	1,828	3%	9,823	18%	20,139	37%	83	×
×	85	62,607	30,329	48%	27,286	17,078	27%	7,226	12%	4,074	7%	16,351	26%	1,854	3%	9,941	16%	21,768	35%	85	0

On-Time Performance

When first analyzing the schedule adherence data, it quickly became apparent that certain routes had very poor on-time performance. After reviewing the schedule adherence data, a benchmark being on time 65% of the time was selected. Several routes had overall schedule adherence performance of less than 65%. In discussions with the Plan development team, individual Core routes were broken down into segments between timepoints. Further analysis showed that the timepoint locations and route timing in the AVL system were creating somewhat misleading data. The series of maps on the right show the troubled segments in red. rabbittransit went to work immediately to improve the system to get more accurate data how the system was actually performing.

The graphs below show the difference between the original data and after the timepoints and system time adjustments. The first graph shows overall on-time performance. The two graphs after On Time Performance show individual measures for being late or being early. All of the routes showed improvement in schedule adherence, some quite significantly.

As the AVL system and technology is still new, collecting the data for the on-time performance measure requires further monitoring and

Map 2-2 Core Routes with Overall On-Time Performance below 65%

Figure 2-2On-Time Performance Showing Before and After System Revisions

Figure 2-3 Late and Early Performance Showing Before and After System Revisions

Observations

From a combination of the dashboards and the dashboard tables, the following observations were made. In this section, Route X (Route 1, Route 14, Route 22) refers to all legs of a particular route together; Route XA or B (Route 1A, Route 14E, Route 22A) refer to a specific individual route; and the term group or service type group refers to the service type groups from Chapter 1, such as Core, Other Core, Radial.

Core Routes

The Route 1

During the development of the Plan and the evaluation of routes, the 1B and 1C were individual routes that were combined at the end of August 2011. As there has not been enough time to collect data for the *new* 1B, this evaluation does show the 1B and 1C separately.

The Routes 1A, 1B, and 1C are the heart of the rabbittransit system, carrying more passengers, accruing more revenue hours, incurring more expenses, and having a higher farebox recovery rate than any of the other routes. These three routes serve the York City urban center and points west to the West Manchester Mall (Route 1A) and points east to the York Galleria and Pleasant Acres (Route 1B, 1C and the new 1B) from the Transfer Center.

There are several points of significance for this group. The first point is that each route has a high percentage of cash-paying riders: Route 1A - 66%. Route 1B - 62%, and Route 1C - 61%. All three routes also have relatively poor on-time performance with an average of being on time only 54% of the time, and all three are late leaving the Transfer Center more than 40% of the time. While averaging to only 4 stops per mile, all three routes have a large number of stops in York City with bus stops almost every block in this segment of their routes. These routes also can and sometimes do carry one or more wheelchair passenger. While the current data collection system does not track the boarding and alighting of wheelchair passengers, through observation and operator interviews, it was identified that the number of these special needs passengers can be significant during certain times of day and their number is growing. Finally, more rabbittransit riders transfer to and from Route 1 than any other service type group.

Other Core Routes

The Other Core or Route 2 through Route 6, both A's and B's, serve the York City urban area and adjacent communities, connecting to each other and Route 1 at the Transfer Center. Generally, the A routes travel north from the Transfer Center, and the B routes travel south. The exceptions are Route 4 which travels east (4A) and south (4B) and the Route 5 which travels west (the 5A) and east (the 5B).

The star performers of this group are the routes 2A, and 5A.

The 2A travels from the Transfer Center to Manchester Crossroads in North York where it connects to Route 14. From the transfer patterns shown earlier, there are a significant number of rabbittransit riders who make this transfer, and the dashboard shows that more riders use this stop for boarding and alighting than any other. This route has a cash-paying ridership percentage of only 44%, one of the lowest of all the routes, and an expense/rider of \$2.42 which is about 50% of this group's average. The farebox recovery rate of 33% is well above the group's average of 20%. The 2A, however, initially showed very poor on-time performance until the timepoints and system were adjusted. After the adjustment, the initial data shows it is running on time more than 70% of the

time. The 6A travels the same route in the opposite direction, and while it is a solid performer, it does not have the same level of ridership nor does it perform quite as well as the 2A.

The 5A travels from the Transfer Center to West York. This route has the highest ridership of the Other Core group and a cash-paying ridership percentage of 45%. The farebox recovery rate of 22% is above the group average of 20%, and the expense/rider of \$3.69 is below the group average of \$4.60. The 5A's on-time performance, initially about 58% also improved to above 65% after the revisions.

The Routes 2B, 3B, and 6B are at the other end of the scale. They all serve a rather narrow corridor in South York

The 2B and 6B, like their northbound counterparts, run the same route in opposite directions, traveling from the Transfer Center to the York Hospital. The 3B also travels from the Transfer Center to the York Hospital by a different route and then continues west to York College and onto Richland Avenue.

The ridership for each of these routes is at the bottom for this service type group. While the cashpaying ridership percentage for these routes is not significantly far from the group average, the farebox recovery rate for all three at 14%, 17%, and 15%, respectively, is below the group average of 20%. The expense/rider for the 2B at \$6.00 and the 6B at \$5.14 is higher than the group average of \$4.60.

From the dashboard maps for these routes, it is easy to see that the most significant stop on these routes is the York Hospital. The 2B and 6B also have riders to and from Edgar Street but few riders traveling to or from any other stops. The 3B also has riders traveling down S. George Street, but virtually no riders after the York Hospital through the western or rest of the inbound part of its journey.

Radial Routes

The Radial Routes serve specific suburban area communities outside the York urban area, connecting at various locations to the Core Routes. Generally, these routes are much longer than the Core Routes and have a lower ridership level. The average expense/rider is more than three times that of the Other Core routes, while the average farebox recovery rate is two and a half times less than the Other Core routes.

The star performer of this group is the 15, traveling from the Transfer Center to Red Lion with connections to the 4B at the Queensgate Shopping Center.

Route 15 carries the most passengers of all the Radial routes. The cash-paying ridership percentage at 61% is among the highest in the *rabbittransit* system. The farebox recovery rate of 14% is almost double the group average of 8%, and the expense/rider of \$7.52 is not only the lowest of the group but about half of the group average of \$14.71. The initial on-time performance data indicates that the 15 runs on time just more than half the time.

Route 17 falls dead last in performance for the Radial Routes and next to last for the system as a whole. This route runs from the Transfer Center to Shrewsbury three times each day.

> With an extremely low ridership level, the 17 has a farebox recovery rate of only 5%. Its expense/rider of \$25.73 is just over one and a half times the group average and one of the highest in the entire rabbittransit system. The 17 has an on-time performance level of less than half the time at 45%

The most confusing of the routes is Route 14 which, connecting with Route 2, travel from Manchester Crossroads in North York through several industrial parks to Manchester. The 14S and 14G travel the same route in opposite directions. The 14E travels along this same route some of the time, travels directly to the Transfer Center on the last run of each weekday, and has a route variation in the York urban area on the weekend. The 14 began as a commuter route to the industrial parks north of York in Emigsville. Over time, they were altered gradually and became what we see today.

On its own, the 14S performs above average in all categories except for ridership level. The cashpaying ridership percentage is a low at 31%. The farebox recovery is 11%, above the group average of 8%. Its expense/rider of \$6.96 is the lowest of the Radial routes. And the on-time performance of the 14S is the highest of the group at 57%.

The 14E and 14G fall far behind the 14S in performance across the board, and with the exception of Route 17 discussed above, are the worst routes in the Radial group. Both routes have very low ridership levels and farebox recovery rates of only 4%. The 14G has an extraordinary expense/rider of \$28.90, almost double the group average. The 14E's expense/rider is above the group average of \$14.71 at \$17.95. Both routes run on time approximately half the time.

While the Route 16 performs above average for the service type group, its low ridership level is worth mentioning here. The 16 travels from the Transfer Center to Hanover through Spring Grove. In late 2004. as part of an effort to contain the need to make larger service cuts, service for Route 16 was cut from six to four runs by eliminating the first and last runs on weekdays with no Saturday service.

Hanover Routes

The five Hanover Routes serve the Hanover area community, circulating throughout to various retail and community service locations. Routes 21A and 22A travel north from Hanover Square to the North Hanover Mall in opposite directions with slight route variations due to one-way streets. Routes 21B and 22B also leave Hanover Square but then travel south. The 21B goes to southwest to Homewood Village, and the 22B goes southeast to Grandview Plaza. Route 23 is unique in that it serves Hanover Middle School and St. Joseph's school. This route runs twice each weekday starting from Hanover Square, delivering students to school and picking them up in the afternoon.

The 21A and 22A are the star performers of this group but are not outstanding performers in the rabbittransit system.

The Hanover "A" routes perform fairly well with a respectable ridership level. Their cash-paying ridership is at 50% for the 21A and 55% for the 22A. With farebox recovery rates of 11% and 9% and expense/rider of \$8.32 and \$10.16 respectively, these two routes operate as well as the mid-level Radial routes. They each have a record for being on-time slightly more than half the time.

The 21B and 22B however are another story.

The 21B, in particular, performs extremely poorly and can claim the lowest ridership level, lowest farebox recovery rate (2%) and highest expense/rider (\$40.62) of the entire rabbittransit system. The 22B performs slightly better with a farebox recovery rate of 6% and an expense/rider of \$10.16.

Express Routes

The rabbitEXPRESS Routes serve York County residents who work in either Harrisburg or Maryland. Route 83 travels from the Transfer Center north on Interstate 83 to downtown Harrisburg area and Route 85 travels from the Transfer Center south on Interstate 83 to Towson, MD and ultimately the Light Rail station. The unique features of these routes are the long distance and the limited number of stops.

Route 83 performs significantly better than Route 85.

The Express to Harrisburg has the lowest cash-paying ridership in the *rabbittransit* system at 6% as most riders prefer to purchase monthly passes. With a farebox recovery rate of 60% and an expense/rider of \$7.93, this route is one of the rabbittransit top performers. Its record for on-time performance, however, hovers at just above 50%.

The Express to Maryland does not do as well as its northbound counterpart. The destination stop locations have been problematic for this route. Unlike the concentrated downtown area of Harrisburg, business development in Baltimore County is spread out in the Hunt Valley and Timonium areas, making it difficult to deliver riders to an accessible location without a significant walk. Commuters to downtown Baltimore must transfer to the Light Rail to reach their destination. Despite these challenges, ridership on the 85 continues to grow. The cash-paying ridership is 30%, indicating a willingness for a large portion of riders to commit to a monthly pass. The farebox recovery rate is only 20% and the expense/rider of \$21.18 is high in the rabbittransit system.

Paratransit

Trip data was collected for paratransit service for the same study period of July 2010 through February 2011 as the fixed route data just presented. Paratransit trips, unlike fixed route, are requested through rabbittransit's customer service department. The trips are entered into the Trapeze Scheduling software. On the day prior, *rabbittransit*'s schedulers work to produce the most efficient routing possible for the next day's requested trips. The routes are produced and the paratransit drivers receive their routes through the AVL system. Due to the fluctuating nature of paratransit service, it is difficult to present the paratransit ridership data in a format similar to the fixed route ridership data. The graph at the bottom of this page, Figure 2-5, shows the paratransit ridership levels by day for the study period.

Figure 2-4 Breakdown of Paratransit Trips

Figure 2-5 Paratransit Ridership Levels by Day

During the study period, there were 43,808 individual trips taken on *rabbittransit* paratransit service, including group trips. These group trips are generally organized through senior centers and may go to destinations outside of York County. In order to effectively evaluate the majority of paratransit service, trips outside York County, both senior-oriented group trips and individual trips, were eliminated from the data. Figure 2-4 shows the breakdown of these trips between the intra-York County trips and those to other counties.

The 34,128 individual intra-York County trips for the study period were then mapped by origin and destination. Map 2-3 shows these trips. It is important to note that in high density areas such as York City and Hanover, the individual origin/destination points are so numerous that it is impossible to see how many there are at individual locations. From the mapping data, the locations for paratransit trips were sorted by frequency. The top ten paratransit locations during the study period are listed in Table 2-7 below and shown on Map 2-4 on Page 18.

Table 2-7 Top Ten Paratransit Locations

	Location	Total Trips	Average Trips Per Day
1	Apple Hill Medical Center	1534	The second se
2	York Mall	1159	Trivini 5
3	York Hospital	1048	Trivit 4
4	Pleasant Acres	910	T
5	West Manchester Mall	894	TTT 4
6	York Galleria	845	3
7	200 N Duke Street	821	3
8	Edgar Square Medical Services	757	3
9	Meadowlands	755	3
10	Orthopedic and Spine Specialists	743	3

Map 2-3 Individual Intra-York County Paratransit Trips

rabbittransit. Transit Development Plan Chapter 2 - Route Evaluation

Map 2-4 Top Ten Paratransit Locations during the Study Period

The origins of the trips to the top ten destinations were investigated for frequency or patterns to be used in evaluating paratransit service, but none were found. The paratransit trips were sorted by zip code area, by major roadway, by single origin and destination frequency, and by geographic area formed by origin/destination clusters. No significant frequency, patterns, or trend were found by which to evaluate paratransit service in a way other than that found in the Pennsylvania Public Transportation Annual Report.

Looking again at Map 2-3 Intra-York County Paratransit Trips, it was observed that a significant portion of the paratransit trips fell within the service area buffer of the fixed route system. The footprint of the fixed route service area buffer was added to the map of the paratransit trips as shown in Map 2-5 on the right. From this map, paratransit trips were divided into three groups:

- Group 1: Paratransit trips with both origin and destination outside the fixed route service area buffer.
- Group 2: Paratransit trips with either origin OR destination outside the fixed route service area buffer and the other end of the trips, either origin OR destination, inside the fixed route service area buffer.
- Group 3: Paratransit trips with both origin and destination inside the fixed route service area buffer.

The trips in Group 1 and Group 2 presented no significant frequency,

pattern, or trend as these trips had origins and destinations scattered throughout the county; were scheduled without consistent frequency of time of day, day of the week or week of the month; and were requested by various individuals.

The trips in Group 3 are those trips that occur totally within the shadow of the fixed route system. These trips were then broken down into those trips that occur within the fixed route service area buffer at-large and those trips that occur within the shadow of a single route. The implications of this breakdown are that those trips that occur within the shadow of the fixed route system at large would require the paratransit rider to make at least one transfer in order to arrive at the chosen destination, while those trips that occur within the shadow of a single fixed route would not require the paratransit rider to make a transfer. Those trips that fall within the shadow of a single route were separated into groups by route. Those route

shadows with the highest number of trips were then mapped and the trip origins, destinations, and frequency were mapped. Those maps are shown on the following pages in the following order: Route 1A (West Manchester Mall), Route 3A (North York), Routes 2/6A (North York), Route 4A (Memorial Hospital), Route 4B (Queensgate), Route 1B/C (York Galleria), Routes 2/3/6B (York Hospital). The number of trips for each route shadow is shown on each map.

Map 2-5 Intra-York County Paratransit Trips with Fixed Route Buffer

The routes with the two highest numbers of trips were chosen for initial evaluation with the following findings:

- For the Routes 2/3/6B combined, there were a total of 1,063 individual trips taken on paratransit during the 243 days of the study period by 129 unique individuals. On average, each unique individual used paratransit within the realm of this route group 8 times during these 8 months. On average, there were 4 paratransit trips per day within this service area buffer.
- For the Routes 1B/C combined, there were a total of 1,868 individual paratransit trips during the study period by 216 unique individuals. On average, each individual rode paratransit 9 times during these 8 months. On average, there were 8 paratransit trips per day with this service area buffer.

There were no significant patterns, trends or frequency to these trips within individual route shadows. Paratransit service, by its demand-response nature, does not lend itself to performance measure evaluation other than at the total system level as patterns, trends or frequencies necessary to group similar trips together for comparison are nearly impossible to identify. Current legislation requires rabbittransit to provide these services as requested to qualified individuals that are, in most cases, unable to travel on fixed route service even where fixed route service is available.

Map 2-9 Paratransit Trips (4B Shadow)

Map 2-10 Paratransit Trips (1B/C Shadow)

Map 2-11 Paratransit Trips (4A Shadow)

Map 2-12 Paratransit Trips (2B/3B/6B Shadow)

Surveys, Focus Groups and Observations

rabbittransit conducts rider surveys for both fixed route and paratransit service annually, alternating paratransit on even years and fixed route on odd years. This frequency allows for the identification of rider preferences and trends over time. The rabbittransit 2009 Paratransit Survey Results and the rabbittransit 2010 Fixed Route Survey Results were used for the Plan. At this time, the 2011 Paratransit Survey is in process but is not yet completed.

During the development of the Plan, focus group interviews with approximately 48 fixed route operators were conducted over a two-week period. Two separate focus group interviews were conducted with rabbittransit customer service and dispatch personnel.

In the period of time between the collection of the data previously presented in this chapter and the focus group interviews, York County Planning Commission (YCPC) transportation staff members involved in developing the Plan rode on various *rabbittransit* fixed route and paratransit buses, enabling them to verify and investigate various findings from the data before meeting with rabbittransit personnel in the focus groups.

Survey Results

2009 Paratransit Survey Results

The 2009 Paratransit survey had a 29.6% response rate for its mailed survey questionnaire. This response rate has a confidence level of 95% with a margin of error of +/-2.3.

The following table, Table 2-XS1 shows the breakdown of respondents by the programs they participate in for paratransit service. The majority of respondents (63.7%) participate in the Senior Shared Ride program, followed by MATP (14.2%). The category Other includes free responses such as medical appointments, group trips, etc. This breakdown is very similar to that of the 2007 survey. It is worth noting that the ADA ridership level experienced a significant decrease from the 2005 survey level of 13.5% corresponding to a March 2005 fare increase.

Table 2-8 Breakdown of Paratransit Survey Respondents by Program

Senior Shared Ride	63.7%
Medical Assistance Transportation Program (MATP)	14.2%
Other	7.4%
Rural Transportation for Persons with Disabilities (PwD)	7.3%
ADA Complimentary Paratransit Service (ADA)	4.0%
Mental Health Mental Retardation (MHMR)	3.1%
Human Service Development Fund (HSDF)	0.8%
Drug & Alcohol (D&A)	0.2%
Welfare to Work Program (WtW)	0.2%

Total* 100.9%

* respondents may choose more than one answer

The number of respondents using paratransit for recreation and social activities appears to be continuing to grow, while the use of paratransit for medical/dental, senior center, work, shopping, personal business and school is decreasing. Figure 2-6 below shows the breakdown for paratransit trip purposes in general.

Figure 2-6 Paratransit Trip Purpose, Biannual Survey

Paratransit riders are making fewer trips. Only 48.5% of the respondents answered the question about how many one-way trips per week they made on paratransit. Of that 48.5%, they take an average of 1.13 rides per week. This number, as an average, is low because of the number of respondents that only use paratransit occasionally for social/recreational trips and answered 0. The 1.13 trips per week average was down from the 2007 rate of 2.19 trips per week. When asked to compare their current volume of ridership, the majority of respondents (61.2%) indicated that they are riding about the same as one year ago. More significantly,

16.6% indicated they are riding less often, opposed to the 12.3% who said that they were riding more often. Along the same line, 9.9% responded that they did not ride paratransit one year ago. The percentage of new riders is down from 13.4% in 2007 and 17.4% in 2005. The reasons given for why they were riding less were finding other transportation options, going on less group trips, and a few stated not being able to afford the fare.

The majority of respondents pay their fares in cash as shown in the pie chart on the right. This level of cash-paying ridership is consistent with 2007. The number of respondents paying with paratransit tickets is up slightly from 2007, and the number of free trips has increased 5% from 2005.

When asked if they have ridden *rabbittransit*'s fixed route in the last year, 16.7% of respondents said they had. This number is down from 18.8% in 2007 and 20.5% in 2005. Of this group, most (36.4%) are MATP program participants and 26.7% are PwD program participants. ADA program participants account for 16% and seniors 10.9%. A majority of the program participants other than seniors claim that paratransit service

Figure 2-7 Paratransit Fare Payment, Surveys

is the only transportation available to them: ADA - 68%, PwD - 64.4%, and MATP - 62.4%. For seniors, only 19.8% claimed paratransit as their only transportation option.

Survey respondents were asked about rabbittransit's service performance. The vast majority of respondents (89.4%) have a positive impression of *rabbittransit*, with 68.6% very positive and 20.8% somewhat positive.

While all ten performance areas received higher than 4.0 out of a possible 5.0, Driver Safety and Driver Courtesy received the two highest scores at 4.59 and 4.56. Scheduled Pick-Up Times, Phone System, and Busses Running on Time received the lowest scores at 4.13, 4.16, and 4.17, respectively. When asked to choose one area for improvement, respondents chose Better Pick-Up Times most often (28%) and Availability of Service was next at 23%.

Two new questions were added to the 2009 paratransit survey. More than 59% of respondents said that they are willing to transfer vehicles to complete their trip if it resulted in faster, on-time service. Nearly 44% of respondents are willing to pay a higher fare for a higher level of service like shorter wait times. Of this group willing to pay more, almost 50% of them are seniors.

2010 Fixed Route Survey Results

The 2010 Fixed Route survey had a response rate of

14.1% which translates to a 95% confidence level with a margin of error of +/-2.1.

In 2010, seventy-seven percent of rabbittransit's fixed route survey respondents said that the bus was the only available transportation option. This percentage is 10% higher than in 2008. Historical survey data from 1990 to the present shows the lack of transportation alternatives to be the number one reason overall. Figure 2-8 on the right shows the trends in reasons for riding the bus for the even years from 2006 to 2010. The bus as the only available transportation is consistently the most common reason for most riders. In the 2008 survey, the cost of riding the bus versus other transportation options was a deciding factor for more respondents than in 2010.

While the percentage changes over time, the number one trip purpose for fixed route riders is Work. Figure 2-9 shows the breakdown in trip purposes for the past three survey cycles of 2006 to 2010. Work

as the primary trip purpose fell 10% in the 2010 survey, while school, shopping, personal and medical trips increased from 2008

Fixed route riders are taking fewer trips. Approximately half of the survey respondents (49%) report that they ride the bus 4 or less times per week while 51% of respondents ride 5 or more times per week. This is a slight change from the 2008 survey when the split was 44% to 56%. The 5-8 trips per week has held steady at 27%; however, the percentage of riders taking 9-10 trips per week decreased by 5% from 2008 and the percentage of riders taking 1-4 trips per week increased by 5%. When asked whether they ride the bus more or less than one year ago, the levels reported matched those of the 2008 survey; new riders made of 13.4% of the total.

Overall, the fixed route rider's method of payment has changed little from 2006. Most riders pay cash for their trips. From 2006 to 2010, there was a 4% increase in the number of riders purchasing 11-ride passes. From 2008 to 2010, approximately 2% of riders moved from a monthly pass to using cash. The fare payment breakdown is shown below in Figure 2-10.

The majority (83%) of fixed route riders walk to the bus stop. This percentage is up by 11% over the 2008 survey when 10% reported riding in a car to access the bus. Car ridership for bus access dropped to 3% in 2010. Thirteen percent reported transferring from another bus. After leaving the bus, 74% of respondents report that they will walk to finish their trip. The majority of riders travel 2 or fewer blocks (41%) to catch the bus and after leaving the bus (32%); however 22% will walk 5 blocks or more to catch the bus and 26%

will transfer to another bus. The number of respondents indicating that they will walk 3 or more blocks either to catch the bus or after leaving the bus remained virtually unchanged from 2008.

When asked if they think the bus service is getting better, worse, or stayed the same, 91% of respondents chose the same or better. This response is in line with the 88% with the same response in 2008. Survey respondents were asked to rate their satisfaction level, on a scale of 1 to 5, for eleven key performance areas. The overall average of all performance area ratings is 3.92 points which is up slightly from 3.87 points in 2008. With one exception, the performance areas scored a minimum of 3.86 points rider satisfaction. For overall service, 71% of respondents chose good or very good, the same level as in 2008 and 2% above 2006.

Rider satisfaction for running on time fell by 9% from 2008, earning a rating of 3.47 points. In 2008, 60% of respondents rated running on time as good or very good; however, in 2010, only 51% chose the same. Service ratings of fair and poor increased by that 9% in 2010 compared to 2008. The very poor service rating remained the same for both 2008 and 2010 at 7%.

The top three requested destinations are OSS/Powder Mill Road, Cape Horn Road, and more service to the Emigsville/Manchester.

Focus Groups

As stated earlier, focus group interviews with rabbittransit fixed route operators, customer service and dispatch personnel. The focus groups consisted of two to eight people. All groups were given the same introduction to the Plan development process and were shown the dashboard and paratransit maps. The data behind the dashboards was reviewed, as well as observations from the ride-alongs. They were then asked for comments and suggestions to improve the service of rabbittransit. The comments and suggestions were very positive in that they were focused almost exclusively on overcoming obstacles and making improvements to provide better service to transit riders. The details of the focus group meetings are included in Appendix C - Focus Group Notes.

The top areas of discussion were:

- Staying on schedule for both fixed route and paratransit
- Making connections for riders who are transferring to other buses, specifically people going to work
- Improving communication with dispatch and other drivers, related to making connections and use of the AVL system for both fixed route and paratransit
- Getting people onto the bus more efficiently for fixed route. Much of this discussion focused on fare collection
- Dealing with wheelchairs primarily for fixed route
- Airing of concerns about people who are "cheating the system" primarily for fixed route

Some results of the interviews include:

- A "hit" list of problem street trees
- Request for refresher training for the AVL system and securing various kinds of wheelchairs and scooters
- A list of suggestions for individual route improvements and additional service
- A list of suggestions for more efficient fare collection

Observations

After reviewing and evaluating both the fixed route and paratransit data, YCPC transportation staff members rode on various fixed route and paratransit buses. The fixed route ride-alongs included routes from all service types, except the Express Routes. The paratransit ride-alongs were scheduled through rabbittransit Operations staff. This up-close look at the rabbittransit system allowed them to verify and investigate various findings from the data.

On-time performance was one of the main areas of investigation. Buses run late due to any number of reasons from road construction projects to trains at rail crossings to special events in York City. As mentioned in the earlier Fixed Route evaluation section, some of the route segments/timepoints are not timed or located properly. Passenger boarding, in particular, causes frequent delay especially at stops with a large number of passenger boardings. This delay is often due to the actual fare collection process. The \$1.40 adult fare that is paid in cash at boarding by the majority of *rabbittransit* riders is problematic. This fare requires an inefficient combination of coins, paper money and coins, or paper money, coins and change cards. Wheelchair passengers are also a cause of delay because of the time requirements involved with using the loading platform to get them on or off the bus and the time required to secure and unsecure the wheelchair. The number of wheelchair passengers is reported to be increasing.

Because of the rabbittransit route structure, riders often take two- or three-seat rides in order to reach their destination. When a bus is delayed, the riders may or may not be able to make the connection to the next bus to continue their journey. The connecting bus may wait for the late bus to arrive, usually at the Transfer Center, to pick up the transferring riders. By waiting for the late bus, the connecting bus may be delayed and so on. There is a frequent balance required between being on-time and making passenger connections.

The data shows that groups of paratransit trips occur in the shadow of the fixed route system, begging the question "Why don't they ride on the fixed route buses?" There are two main answers to this question. The first is the fact that many paratransit riders are not capable of riding fixed route buses that require a level of independence that these riders do not have. They require the special care that paratransit drivers provide and that fixed route drivers cannot take the time to provide. The other answer is that the fixed route service does not provide service for the times and to the destinations that these riders need.

Summary

In this chapter, various data has been presented and analyzed. Combined with field observations and input from focus groups and several surveys, the following points can be made.

- The star performers of the *rabbittransit* fixed route system are
 - o 1A Core, Transfer Center to West Manchester Mall
 - 2A Other Core, Transfer Center to North York
 - 5A Other Core, Transfer Center to West York
 - 15 Radial, Transfer Center to Red Lion
 - 83 Express, Transfer Center to Harrisburg
- The worst performing routes are
 - o 2B Other Core, Transfer Center to South York
 - o 3B Other Core, Transfer Center to York College
 - 6B Other Core, Transfer Center to South York
 - o 17 Radial, Transfer Center to Shrewsbury
 - o 21B Hanover, Hanover Square to Homewood Village
 - o 85 Express, Transfer Center to Maryland
- Individually, the Routes 14 perform very poorly but the deviations in routes and service times make it • difficult to analyze as one combined route.
- The structure of the *rabbittransit* system creates a significant number of transfers, specifically between the following routes:
 - Route 1 and Routes 2, 3, 4, 5, 6, 12, 13, 14, 15, and 16
 - Route 2 and Route 14
- ٠ Schedule adherence or on-time performance could be improved, even after the system revisions. Not being on time is a common rider complaint.
- The need for riders to make transfers to other buses in order to get to their destinations causes conflict with on-time performance policies. Buses run late for any number of reasons. When these late buses need to transfer riders to other buses, it can cause the other buses to run late.
- The integrated AVL system is a wonderful system for collecting detailed operational data to the bus stop • level. Communication between individual operators and dispatch, however, is cumbersome, limiting the exchange of information such as road construction projects and accidents that can cause delays.
- Delays in passenger boarding are a common cause of buses running late. Two common causes of • passenger boarding delays involve cash-paying passengers and wheelchair passengers. The \$1.40 cash fare is problematic in the time that it takes to both insert the money into the farebox and make change, if necessary. Loading and securing wheelchair passengers takes a significant amount of time.

- Evaluating discounted fare eligibility is also a cause for delayed passenger boarding, as are road construction projects, trains at rail crossings, and special events.
- Some routes have an extraordinary number of bus stops. Frequent stopping, especially on the routes with higher ridership levels can cause delays and is a frequent passenger complaint.
- The most frequently requested destination locations for fixed route are Orthopedic and Spine Specialists (OSS) on Powder Mill Road, Cape Horn Road, and additional service to Emigsville/Manchester area.
- The fluctuating nature of paratransit service makes it difficult to plan and schedule paratransit trips for optimal efficiency.
- In some areas, requested paratransit service shadows fixed route service in a one-seat area. Many of these riders simply are not capable of riding on fixed route buses as this requires a level of independence or knowledge these riders do not have.
- The focus groups made valuable suggestions for individual route improvements and additional service.

rabbittransit Just Hop Ont Chapter 3 – Unmet Needs

Transit Development Plan Chapter 3 – Unmet Needs

Chapter 3 - Unmet Needs

rabbittransit's service area was introduced in the beginning of Chapter 1. In this chapter, the Plan examines various factors to evaluate the availability of *rabbittransit*'s service to York County residents and to identify any unmet needs. The various factors or data used in this chapter include:

- York County's Total Population
- Various Target Populations within the County: Minority, Poverty, Zero-Car Households, Persons with Disabilities (PwD), Under 18, Labor Force, Over 64, and English Deficiency (also known as LEP or Limited English Proficiency)
- · Commuter Services of Pennsylvania's commuter database for York County
- rabbittransit Fixed Route Study
- Major Retail Centers and Health Services Facilities
- Major Employers
- Proposed Subdivisions for the period 2007-2010

As paratransit a demand-response service, this chapter pertains specifically to fixed route service.

Total Population and Target Populations

Using the dashboard maps and data from Chapter 2, both the total population and various service target populations in the service buffer areas were identified for the individual routes. In Table 3-1 below, these groups are combined into totals and then expressed as a percentage of the total population and total target populations for York County as a whole.

Table 3-1 Target Populations for York County and rabbittransit Service Area

		Service	
	County	Area	%
Minority	27,568	22,171	80%
Poverty	25,269	17,274	68%
Zero-Car Households	9,831	6,419	65%
PwD	102,866	57,489	56%
Under 18	94,057	51,483	55%
Labor Force	203,496	109,600	54%
Over 64	51,396	26,281	51%
English Deficiency	3,452	1,174	34%
Total Population	381,751	206,096	54%

Source: US Census, 2000

Approximately 206,000 York County residents or 54% of York County's total population live within the *rabbittransit* service buffer areas. With the exception of English Deficiency target population, more than half of all the other target populations live inside the transit service buffer areas, and just over one-third of the English Deficient population lives within this area. As the data suggests, there are portions of the

English Deficiency and Over 64 populations that live outside the service buffer areas. Figure 3-1 shows this same information. The orange line on the graph shows the 54% service level for York County's total population.

Figure 3-1 Service Area Coverage as a Percentage of County Total

Commuter Trips

Commuter Services of Pennsylvania (Commuter Services) is a non-profit organization that offers commuters transportation alternatives to driving to work alone such as transit options, carpool matching, vanpool organizing throughout a nine-county region that includes York County. Interested commuters register through the Commuter Services' website or paper application and enter information about their home and workplace locations and their basic work times and schedule. Using this information, Commuter Services then provides them with any available transit options, potential carpool matches, or possible vanpool opportunities.

The commuting trips for York County residents who were registered with Commuter Services as of July 2011 are shown on Map 3-1 Connections Requested within York County. The light purple dots represent the origins or, in most cases, the residences of these commuters and the dark purple dots the destinations or employment locations. It is easy to spot the large cluster of both origins and destinations in York City urban area in the center of the map. The cluster of dark purple dots just north of York City is the Emigsville/Manchester area and the cluster of origins and destinations to the southwest of York City is the Hanover area. Many of these origins and destinations fall within the fixed route service area.

Many registered commuters remain in the Commuter Services database after they have started taking the bus to work, found a carpool or enrolled in a vanpool. Commuter Services' database only tracks vanpool participants as they administer the expense-sharing part of the program. There is no way to tell how many of these registered commuters who drove alone in their cars to work when they registered now take the bus or carpool.