Delaware County Transit Report

2010 - 2011

Delaware County Planning Department

Transportation Section

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This report reflects all transit-related operations and developments in Delaware County in Federal Fiscal Year 2011.

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Table of Contents

List of Figures

List of Tables

1   Introduction

1.1   Purpose and Structure of the Transit Report

The principal purpose of this report is to provide both the public and the wider planning community with an up-to-date account of all public transit services in Delaware County as of September 30, 2011, the end of the Federal Fiscal Year. Much of the data used in this report has been represented on a fiscal year basis rather than a calendar year. The detailed information available will still provide for a useful study to identify changes and trends between years. This document was produced using information from the Southeastern Pennsylvania Transportation Authority (SEPTA), Community Transit of Delaware County, Inc., field views, and ongoing project monitoring conducted by the Delaware County Planning Department (DCPD). The structure of the report is organized as follows.

First, fixed-route public transit in operation in Delaware County will be reviewed with regard to ridership, level of service, and financial feasibility. These modes include regional rail, bus transit, light rail transit, and high-speed rail, each of which is analyzed in detail within a section in the report. Delaware County's principal paratransit services operated by Community Transit of Delaware County, Inc. will also be examined within a section of this report. Transit data was compared from previous years to identify transit trends within the County.

There is also an additional section detailing the funding stream of Job Access/ Reverse Commute (JARC). This is a program funded by the Federal Transit Administration (FTA) and regionally administered by the Delaware Valley Regional Planning Commission (DVRPC). JARC funds numerous bus routes and regional rail service into and through Delaware County. The JARC chapter provides an overview of the program and information on which routes are funded through the program.

Finally, any major transit projects in progress during the calendar year will also be identified. The report will include a Delaware County transit project summary of each project with the objectives and associated capital costs.

1.2   Public Transit Overview

SEPTA is the sole provider of fixed-route public transit within Delaware County. With the exception of the City of Philadelphia, SEPTA has more public transit routes serving or partially serving Delaware County than any of the other counties it serves. Delaware County has over 2,600 transit stops (bus, trolley, high-speed rail, subway-elevated, and regional rail), second only to the City of Philadelphia in SEPTA's entire service region. Traditionally, public transit has been a vital component of community life in much of Delaware County for over a century. The close proximity to Philadelphia, the industrial importance of areas along the Delaware River, and the ensuing development of relatively dense "first-generation suburbs" have all led to the development of a

comparatively intricate multi-modal public transit network concentrated in the southern and eastern portions of the County.

As of September 30, 2011, SEPTA's public transit system operating in or partially in Delaware County consisted of one elevated rail line, four regional rail lines, four light rail lines, one high-speed rail line, and twenty-seven bus routes.[1]

Table 1 shows all SEPTA routes that travel through Delaware County (from both Victory and City Transit Divisions). However, a portion of these routes only travel through the County for a short distance, making up a fraction of their entire journey. Several City Transit routes terminate at Delaware County's principal public transit hub – 69th Street Terminal. Consequently, routes such as the Market-Frankford rail line and bus routes 21, 30, 42, 65, and 68 only travel in Delaware County for approximately half a mile. A similar situation exists for light rail trolley Routes 11 and 13, which commence from Darby Transportation Center in Delaware County before crossing the Cobbs Creek boundary into Philadelphia. The exception to this is bus route 37, which is classified as a City Transit route; however, the majority of its operations lie within Delaware County's borders.

These inter-county public transit routes listed in **Table 1** are an important link to the City of Philadelphia and the greater Delaware Valley for Delaware County residents. Yet, for the purposes of this transit report, they will not be included as Delaware County routes. These routes are part of SEPTA's City Transit division. Using these routes in the analysis of Delaware County public transit would only alter the data and could lead to a misrepresentation of services in the County.

Indeed, while Delaware County's bus system and light rail almost exactly replicate that of SEPTA's Victory Division, there are also a few notable exceptions that must be explained. Bus route 125 is classed within the Victory Division, yet it does not travel through Delaware County at any point. **Table 1** shows a total of twenty-eight bus routes which operate within Delaware County; however, only twenty-one routes will be analyzed for this report. One bus route, the 306, was in operation in 2010; however, it has since been terminated.

All regional rail routes passing through Delaware County will be examined regardless of the distance traveled within the County. SEPTA's extensive regional rail routes travel through multiple counties and, in some cases, into the neighboring states of New Jersey and Delaware. The importance and larger ridership levels associated with regional rail necessitate a study into all routes intersecting Delaware County. SEPTA accordingly designates regional rail a separate division without any specific geographical base.

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[1]SEPTA divides its operations into the Victory District (Delaware County), Frontier District (Montgomery, Bucks, and Chester Counties), City Transit Division (Philadelphia), and Regional Rail Division.

Table 1. – SEPTA Service Coverage in Delaware County by Individual Route and Service Frequency for Calendar Years 2010- 2011

ROUTE	ORIGIN AND DESTINATION	SERVICE FREQUENCY BETWEEN 6:00 AM AND 1:00 AM (MINUTES)		
		WEEKDAYS	SATURDAY	SUNDAY
HIGH-SPEED RAIL				
MFL	Market-Frankford line between Frankford Transportation Center and 69th St. Terminal	6~14	10~15	10~15
NHSL	69th St. Terminal to Norristown via Bryn Mawr, Villanova, and Gulph Mills	15~40	10~30	30
LIGHT RAIL				
11	Darby Transportation Center to Center City via Woodland Ave.	6~30	15~30	20~30
13	Yeadon/Darby to Center City via Chester Ave.	4~30	15~30	20~30
101	69th St. Terminal to Media via Springfield	10~60	30~60	30~60
102	69th St. Terminal to Sharon Hill	10~60	30~60	30~60
REGIONAL RAIL				
R1	Philadelphia International Airport to Central Philadelphia	30	30	30
R2	Wilmington and Newark to Central Philadelphia and Warminster	30~60	60	60
R3	Media and Elwyn to Central Philadelphia and West Trenton	15~60	60	60
R5	Thorndale and Paoli to Central Philadelphia and Doylestown	10~60	30~60	60
BUS ROUTES				
21	Penns Landing to 69th St. Terminal via Chestnut and Walnut Sts.	8~30	4~30	15~40
30	30th St. Station to 69th St. Terminal via University City	25~60	45~60	45~60
37	South Philadelphia / Eastwick to Chester via. Phila. Int. Airport and Business Center	15~60	30~60	30~60
42	Wycombe / West Philadelphia to Penns Landing via Spruce, Chestnut, and Walnut Sts.	6~30	10~30	15~30
65	Germantown to 69th St. Terminal via City Ave.	4~30	15~30	20~30
68	South Philadelphia to UPS	10~60	60	60
103	69th St. Terminal to Ardmore via Brookline	30~60	60	NS
104	69th St. Terminal to West Chester via Newtown Square	15~60	30~60	30~60
105	69th St. Terminal to Ardmore and Paoli via Lankenau Hospital	30	60	60
106	69th St. Terminal to Ardmore via Penn Wynne	30~60	60	NS
107	69th St. Terminal to Lawrence Park via Springfield Mall	30~60	60	NS
108	69th St. Terminal to Phila. Int. Airport, UPS, Airport Business Center via Yeadon	15~60	30~60	60
109	69th St. Terminal to Chester via Lansdowne and Springfield	15~60	20~60	30~60

ROUTE	ORIGIN AND DESTINATION	SERVICE FREQUENCY BETWEEN 6:00 AM AND 1:00 AM (MINUTES)		
		WEEKDAYS	SATURDAY	SUNDAY
110	69th St. Terminal to Granite Run Mall and Penn State University via Pilgrim Gardens, Springfield Mall, and Media	15~60	30~60	60
111	69th St. Terminal to Penn State / Chadds Ford via Granite Run Mall	15~60	60	NS
112	69th St. Terminal to Delaware County Community College via Lawrence Park	15~60	60	NS
113	69th St. Terminal to Tri-State Mall via Darby and Chester	15~60	15~60	60
114	Darby Transportation Center to Granite Run Mall via Chester	30~90	60~90	60
115	Ardmore to Philadelphia International Airport & Airport Business Center via Darby	60	60	60-90
116	USPS Eastwick Facility to 69th Street Transportation Center	60~150	NS	NS
117	Feltonville to Penn State via Chester Transportation Center & Granite Run Mall	30	30~60	60
118	Chester to Newtown Square via Media	30~60	60	NS
119	Chester to Cheyney University via Boothwyn and Concordville	60	60	60
120	69th St. Terminal to Cheyney University via Newtown Square	60	90	90
122	69th St. Terminal to Glenolden / Springfield Mall	30~60	60	NS
123	69th St. Terminal to King of Prussia via West Chester Pike and I-476	30~60	30~60	30
126	Lawrence Park to 69th Street Transportation Center	30~60	60	NS
306*	Brandywine Town Center to Great Valley	60~120	NS	NS

* Route 306 – service was discontinued in Delaware County in September 2010

NS = No Service
Routes highlighted in RED operate out of the City Transit Division (CTD)
Source: http://www.septa.org

2   Regional Rail

2.1   Overview of Delaware County Regional Rail

Delaware County has a well-established railroad presence. Geographically, SEPTA operates three lines across the County on an east-west axis, one in the far north, one at mid-County level, and one in the south along the Delaware River. These three lines are the Paoli/Thorndale, Media/Elwyn, and Wilmington/Newark lines, with all routes entering Delaware County via the Center City stations of Philadelphia.[2] The Airport line also operates within Delaware County; however, it does not have any stations within the County boundary. The Airport Line will only be discussed briefly due to its minimal role.

There are a total of twenty-nine operating SEPTA regional rail stations within Delaware County, which produced an average weekday daily boarding of 9,290 riders in 2009. The former total boardings peak was 8,680 in 2001, which fell to 8,470 by 2003. The figures for 2005 represented a gradual recovery in ridership on regional rail, rising to 8,516 and then 9,506 in 2007. SEPTA only publishes its Regional Rail Ridership Census every other year, so annual fluctuations may well have occurred. However, overall, regional rail ridership appears roughly constant within Delaware County when viewed over eight years.

2.2   Airport Line - Philadelphia International Airport to Central Philadelphia

The Airport line was created to provide service from Center City Philadelphia to Philadelphia International Airport. The service operates every half hour from 5:00 a.m. – 1:00 a.m. seven days a week. This is a much higher operating frequency than any other regional rail line. The Airport line only runs through Delaware County for half a mile, with no stations in the County. The Airport line has little influence on Delaware County as a whole and should be considered a Philadelphia City line. Regional Rail riders in Delaware County have to transfer at University City or 30th Street stations in Philadelphia in order to access the Airport line.

2.3   Wilmington/Newark Line - Newark (Delaware) to Central Philadelphia

The Wilmington/Newark Line runs through Delaware County for over nine miles and serves the areas along the Delaware River, operating along Amtrak's Northeast Corridor line. In its entirety, the Wilmington/Newark Line travels from Center City as far south as Newark, Delaware. The Wilmington/Newark Line is an important regional rail line serving a large geographical area and several major commuting nodes. In terms of train frequency, the Wilmington/Newark Line should be considered roughly average when compared to other regional rail lines. Trains operate between the hours of 6:00 a.m.

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[2] Beginning July 25th, 2010, SEPTA renamed its Regional Rail lines after the routes' terminal stations, dropping the "R" and associated number of each route. Delaware County's former R2, R3, and R5 lines are now the Wilmington/Newark, Media/Elwyn, and Paoli/Thorndale lines, respectively.

– 1:00 a.m., running every half hour during the weekday peak periods and every hour at all other times.

Delaware County is host to thirteen stations on the Wilmington/Newark line, which is the most of any county along the line. According to SEPTA, average weekday boardings for the route for all stations in Delaware County have fluctuated roughly between 2,100 and 2,600 riders from 1999 to 2009, with 2009 levels at 2,406 (see **Figure 1**). Yet, despite having more stations than any other regional rail line in the County, total boarding levels would appear rather modest when compared to the totals of other regional rail lines. The Wilmington/Newark Line ranks second but is closely followed by the Paoli/Thorndale line, which has only four stations located in Delaware County.

Figure 1. – Delaware County Regional Rail Average Weekday Boarding Totals by Line, 1999-2009
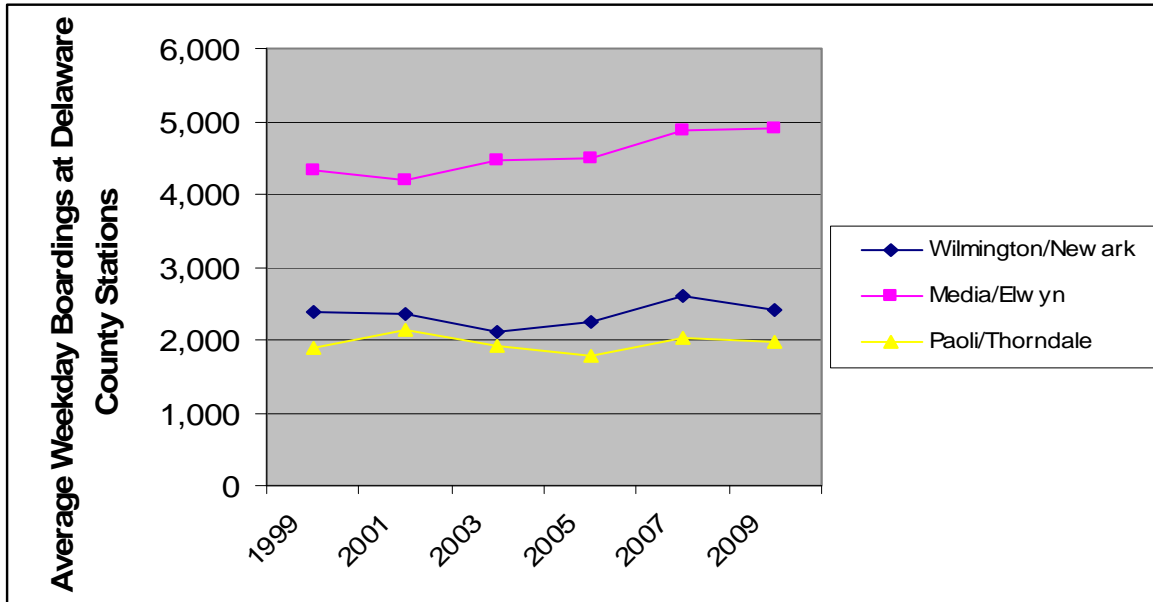
Source: SEPTA Regional Rail Ridership Census, 1999, 2001, 2003, 2005, 2007, and 2009

A closer examination of the daily boardings at the individual stations of the Wilmington/Newark line shows some more revealing results, as **Figure 2** demonstrates. Clearly, the average daily boardings at Wilmington/Newark Line stations have varied considerably. There are several factors that have influenced and will continue to influence the trends in boardings at stations.

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Figure 2. – Average Weekday Boarding Totals for Wilmington/Newark Line Stations in Delaware County, 2001-2009
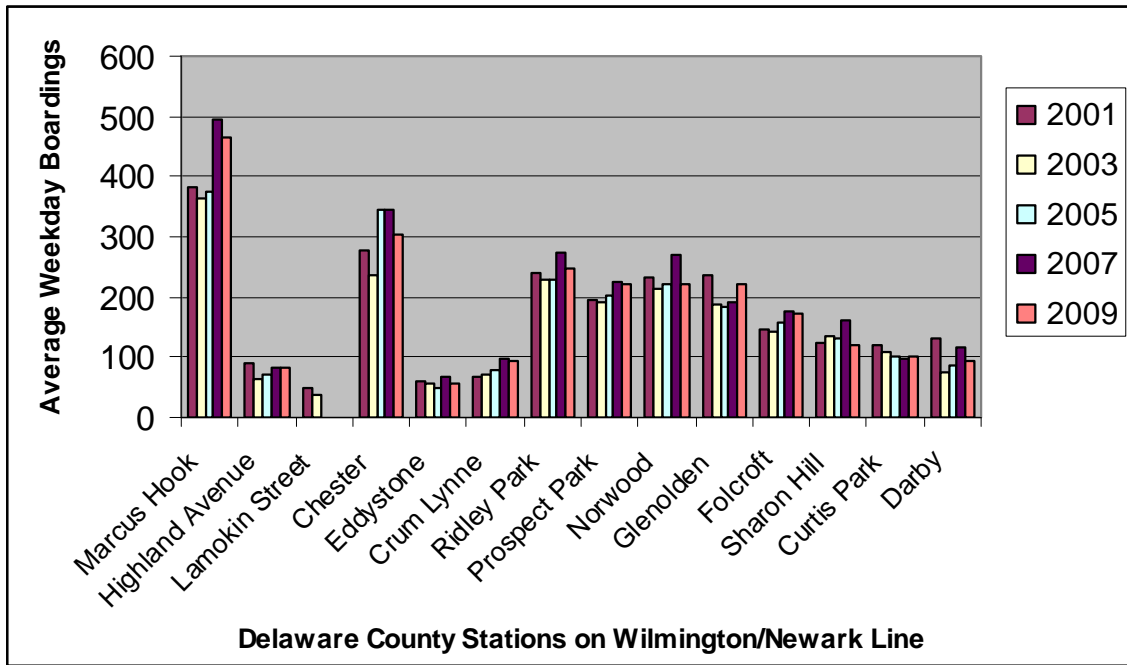
Source: SEPTA Regional Rail Ridership Census, 2001, 2003, 2005, 2007 and 2009

Figure 2 noticeably shows that Marcus Hook station has had significantly higher levels of boarding than any other Wilmington/Newark Line regional rail station in Delaware County for the last eight years. This can essentially be attributed to the fact that Marcus Hook is a "park-and-ride" station. Unlike any other Wilmington/Newark station in Delaware County, Marcus Hook has a large parking lot able to accommodate over 300 cars, which typically runs near full capacity on weekdays (see **Figure 3**). All other stations on the line typically have less than fifty spaces or none at all. Thus, the Marcus Hook station is able to draw riders from a much larger catchment area. Commuters living farther down the line in Delaware may often drive to Marcus Hook to board in order to save on journey time and cost of a ticket.

Figure 3. – Total Parking Capacity and Utilization of Wilmington/Newark Stations in Delaware County, March 2011
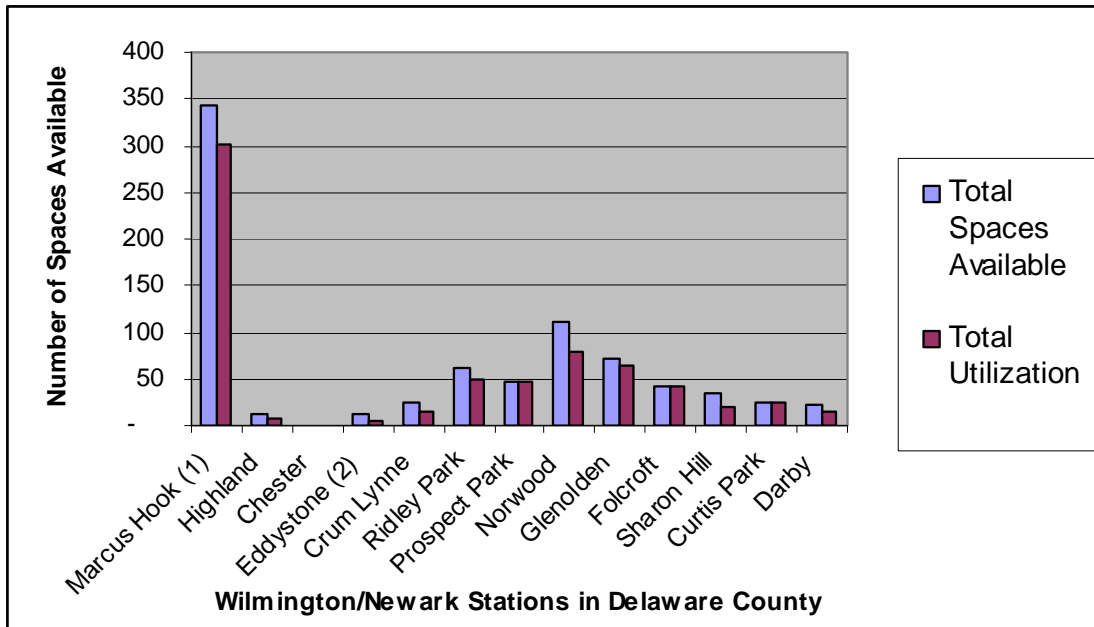
Source: SEPTA Regional Rail Division Parking Operations Survey Data, Fall 2010

Chester Transportation Center has the second highest boardings on the Wilmington/Newark line and has seen a significant increase of over 100 daily boardings within the last four years. The predominantly low-income, high population density of Chester City naturally supports a higher boarding level at this station, which is also a major connection point for bus transit (routes 37, 109, 113, 114, 117, 118, and 119). Perhaps the most recent increase in boardings can be attributed to the opening of PPL Park, the home of the Philadelphia Union Major League Soccer franchise in 2010. The Team urges the fans to use public transportation to reach the stadium and provides a private shuttle bus from the Chester Transportation Center.

Of particular concern are the continually low boarding rates at certain Delaware County stations on the Wilmington/Newark line. SEPTA considers 75 daily boardings as the minimum acceptable level for a station to operate. Stations falling below this level may be earmarked for closure. Eddystone was the only station in 2010 to experience daily ridership at or below SEPTA's minimum ridership standards, a positive change from 2008 when 3 Wilmington/Newark stations fell below this threshold. Unfortunately, Eddystone and other stations with low boarding averages suffer from a negative cycle. Due to the very low boarding levels, SEPTA is generally reluctant to invest in these station facilities; however, in FY2010, after a request from DCPD, SEPTA made a significant investment in the Eddystone station. Improvements included new station shelters, landscaping, painting, and overall cleaning of the station property.

Predictably, levels of boarding gradually decrease from west to east in Delaware County as stations get closer to Philadelphia. This can be seen in **Figure 2** (left to right) from Ridley Park station onwards. As SEPTA's multi-modal transit system becomes more intricate towards the City, buses and trolleys become more attractive to transit users due to their greater frequency and cheaper riding costs.

2.4   Media/Elwyn Line - Media/Elwyn to Central Philadelphia

The Media/Elwyn line is centralized in the County and is perhaps the regional rail route most associated with Delaware County. It operates from Center City Philadelphia to Elwyn, just west of Media. In addition, the line runs through the large commuting hub of Swarthmore Borough and Swarthmore College and also serves the relatively dense first-generation suburbs of eastern Delaware County, such as the Boroughs of Lansdowne and Clifton Heights. During peak weekday periods, the average headway on the Media/Elwyn line is 30 minutes and hourly at all other times, including weekends.[3]

There are twelve Media/Elwyn line stations located along an approximate eight-mile stretch within Delaware County, making up a large proportion of the total stops. Despite having one less station than the Wilmington/Newark line, the Media/Elwyn line has by far the highest numbers of total boardings at its Delaware County stations. In fact, boarding levels for the last eight years at the twelve Media/Elwyn stations have been greater than those of the County's Wilmington/Newark and Paoli/Thorndale stations combined.

Figure 4 details the total boardings at Media/Elwyn stations in Delaware County over the past eight years. While boarding levels at all of the stations have remained roughly constant, the levels among the line's stations vary significantly.

Swarthmore station has by far the largest number of total boardings, which has risen above 700 per weekday on average for the last four census years. This is partly due to the presence of Swarthmore College, which draws in large numbers of commuting students, faculty members, and staff. The demographics of student populations are typically well suited to public transit use as car ownership levels are substantially lower than the average. In addition, Swarthmore station has a relatively large parking lot of over 200 spaces that probably attracts a substantial proportion of park-and-ride commuters (see **Figure 5**).

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[3] Headway is defined as the time (number of minutes) between the passing of two successive transit vehicles on a route going in the same direction.

Figure 4. – Average Weekday Boarding Totals for Media/Elwyn Line Stations in Delaware County, 2001-2009
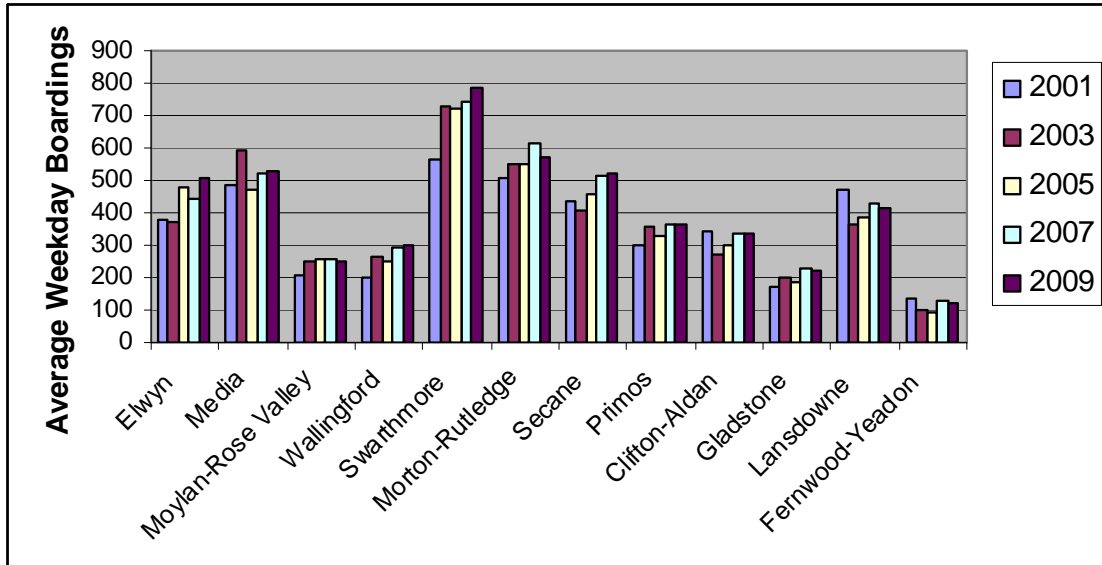
Source: SEPTA Regional Rail Ridership Census, 2001, 2003, 2005, 2007 and 2009

One can assume that the presence of extensive parking facilities at both the Media and Elwyn stations accounts for the high levels of boardings over the past four census years. In addition, the rapid growth of western Delaware County and southern and eastern Chester County provides the prime opportunity for Media and Elwyn to be used as park-and-ride locations. The latest regional rail census (2009) recorded average weekday boardings of 529 at Media and 504 at Elwyn. These stations have 250 and 348 parking spaces, respectively, which draw in large amounts of park-and-ride commuters. Due to Elwyn's previous inability to serve the parking needs of its commuters, SEPTA completed a parking expansion project in the summer of 2010 to add close to 100 additional parking spaces to the station's facilities. Generally, the small numbers of vacant spaces at several stations on the Media/Elwyn line are often in fact permit spaces where all permits are sold, but on any given day some spaces may be vacant. This can be seen at the Lansdowne station as well as Secane, which only allows permit parking, instead of the combination of daily fee and permit parking. However, daily fee spaces are usually filed to capacity every day.

Figure 5. – Total Parking Capacity and Utilization of Media/Elwyn line Stations in Delaware County, March 2011

Media/Elwyn Line Stations in Delaware County
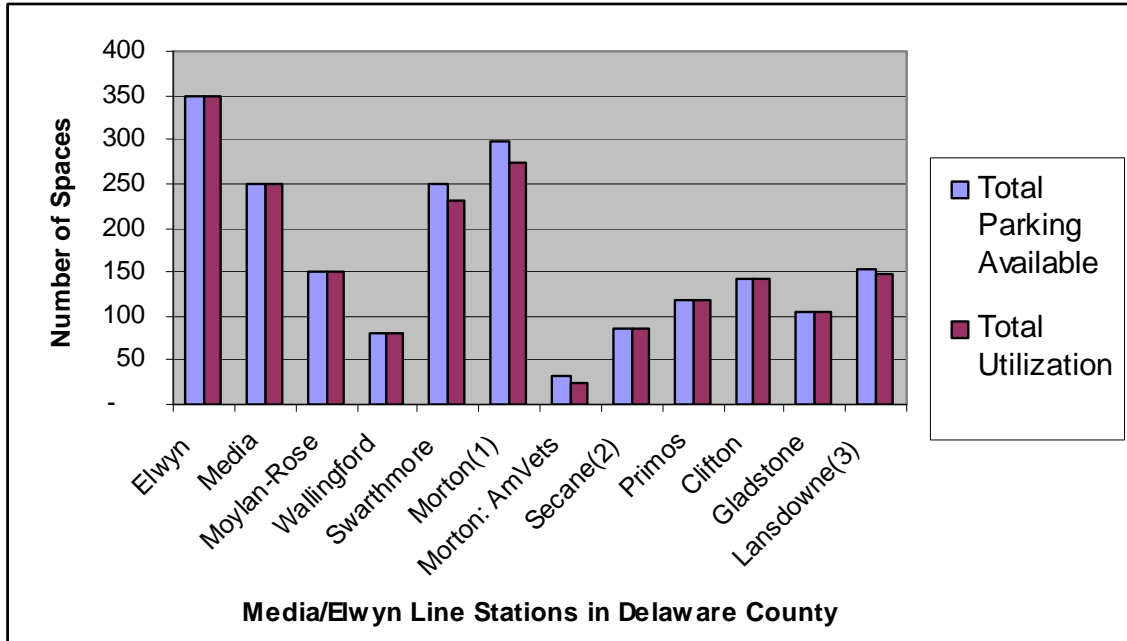
Source: SEPTA Regional Rail Division Parking Operations Survey Data, Fall 2010
(1) – Free municipal spaces located two blocks from station on Church Road
(2) – Church Lot, located two blocks from station on Franklin Avenue (monthly permits)
(3) - Lansdowne Municipal Lot located two blocks from station

SEPTA is currently planning for the extension of the Media/Elwyn line from its terminus at Elwyn to a new terminus at Wawa in Middletown Township. As of April, 2011, the first phase of the project, which included items such as track bed restoration, stabilization of rights of way, and construction of retaining walls, had been completed. The initial phase was funded through $10 million dollars in federal stimulus monies. The second and third phases of the project will include bridge rehabilitation and replacement, as well as the construction of a new station and parking facilities for 600 cars. These phases are estimated to cost an additional $80 million dollars. While SEPTA currently has the funding available for the completion of the design phase, funding sources for construction of the project have yet to be determined.[4]

2.5   Paoli/Thorndale Line - Paoli to Central Philadelphia

The Paoli/Thorndale line only runs through the far north of Delaware County for a little over three miles, but it is still an important regional route. The track of the Paoli/Thorndale is that of the old Pennsylvania Railroad line to Harrisburg and has been commonly known as the "Main Line." Amtrak owns the railroad on which it operates an inter-city service, the Keystone Corridor service. Consequently, SEPTA leases the track

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[4] Middletown Township Planning Commission Hearing, April 12th, 2011.

and local stations from Amtrak. In its entirety, SEPTA's Paoli/Thorndale line runs from Center City Philadelphia out along the Main Line suburbs of Montgomery, Delaware, and Chester Counties before terminating at Thorndale in Chester County.[5] The line passes through several important commuting nodes including Downingtown, Exton, Paoli, Wayne, and Villanova University.

During peak weekday periods, average headway on the Paoli/Thorndale line can be as little as 10 minutes, making it the most regular running of all of the regional rail lines in Delaware County. Unlike the other two primary regional rail lines serving the County, the Paoli/Thorndale line also has a reduced headway of 30 minutes during most of the day on its Saturday service. These comparatively low headways are perhaps more associated with a bus or trolley and would be expected to encourage large ridership levels. Indeed, the line has the greatest total ridership of any SEPTA regional rail service with an average weekday total ridership at around 20,800.[6]

Only four Paoli/Thorndale stations are located within Delaware County out of a total of twenty-four stops between Thorndale and Suburban Station in Center City Philadelphia. All four stations, Villanova, Radnor, St. Davids, and Wayne, are located in Radnor Township. While the line has comparatively little presence within Delaware County, it more than makes up for this in terms of boarding levels at these four stations, as **Figure 6** demonstrates.

**Figure 6. – Average Weekday Boarding Totals for Paoli/Thorndale Stations in Delaware County, 2001-2009**
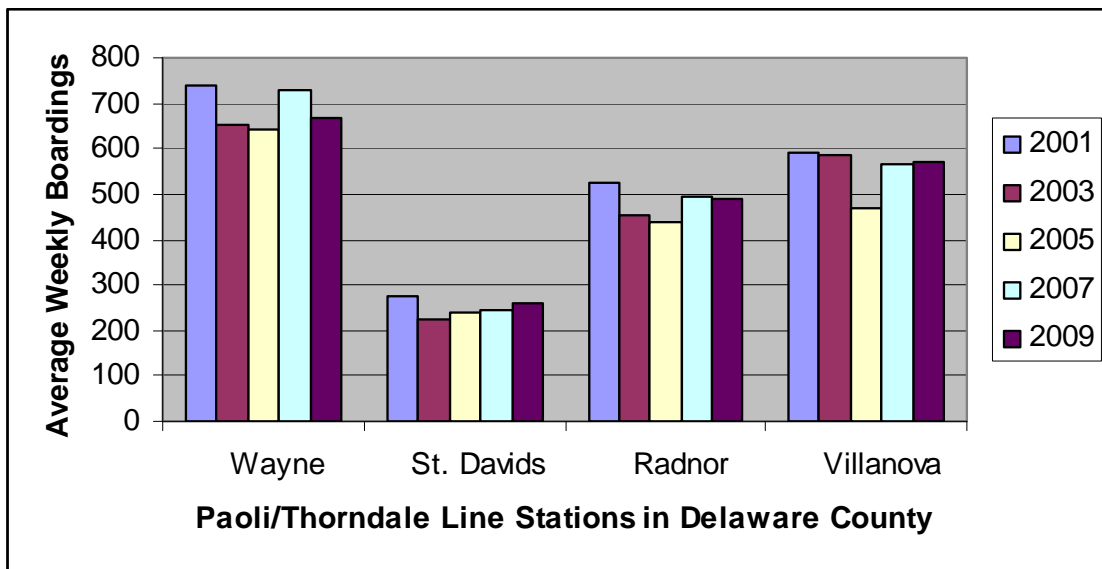
Source: SEPTA Regional Rail Ridership Census, 2001, 2003, 2005, 2007 and 2009

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[5] These areas were named "Main Line" suburbs as their development can be largely attributed to the construction of the Pennsylvania Railroad's main line in the 19th century.

[6] SEPTA Regional Rail Ridership Census, 2009

Average weekday boarding levels at Wayne, Radnor, and Villanova stations are among some of the highest of all regional rail stations in Delaware County. Radnor station has a boarding level near 500 a day, Villanova station is near 600 a day while Wayne station has levels of over 600. Like most stations in Delaware County, it seems that boarding levels at these stations have remained roughly consistent over the last eight-year period, with no drastic changes.

As with many stations in Delaware County, the high average weekday boarding levels associated with the Paoli/Thorndale stations can be attributed to the provision of extensive parking facilities (see **Figure 7**). Wayne, Radnor, and Villanova stations have 142, 220, and 167 parking spaces, respectively. Thus, these stations are able to draw commuters not just from their immediate locale but can also serve a catchment area of several miles around the station for park-and-ride commuters. Similar to the case with Swarthmore station on the Media/Elwyn line, the Villanova station has a built in train commuter population with its location on the University's campus. It is possible that many users of the Paoli/Thorndale stations may actually drive from the northern townships of Delaware County and Upper or Lower Merion Townships in Montgomery County. As was speculated on the Wilmington/Newark line in the case of Marcus Hook station, commuters living farther west on the Paoli/Thorndale line in Chester County may actually prefer to drive to these Delaware County stations to catch a train in order to save time and on ticket price. The only exception to this tendency seems to be St. Davids station, which, due to its comparatively limited parking facilities, does not share the exceptionally high boarding levels of the other stations. More than any regional rail line in Delaware County, the Paoli/Thorndale demonstrates the crucial ability of parking provisions to positively influence ridership.

Figure 7. – **Total Parking Capacity and Utilization of Paoli/Thorndale Stations in Delaware County, March 2011**
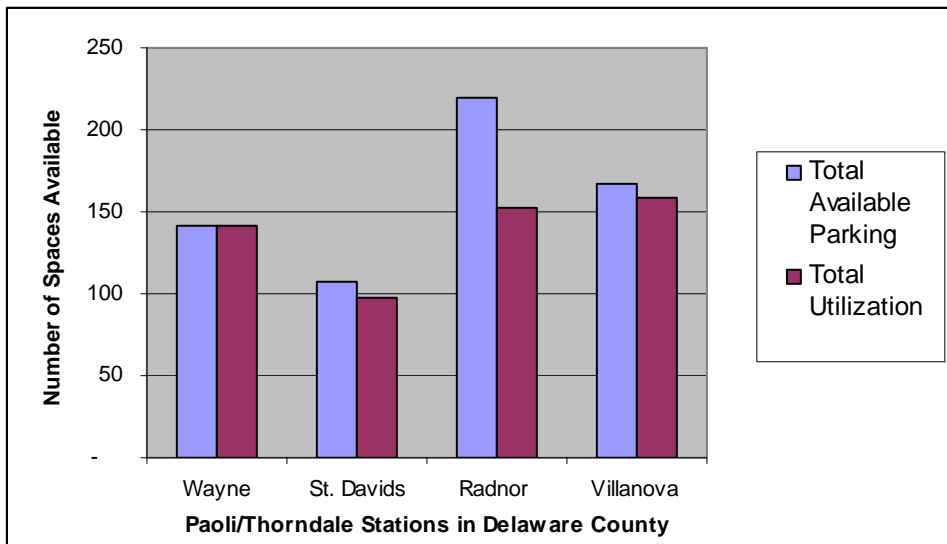
Source: SEPTA Regional Rail Division Parking Operations Survey Data, Fall 2010

2.6   Conclusions - The Need for Parking Facilities at Regional Rail Stations

It would seem that a major underlying factor governing boarding levels at regional rail stations in Delaware County is the ability to provide a sufficient number of parking spaces. Indeed, this aspect can be detected across all three regional rail lines within the County, with some stations displaying low boarding levels as a result of inadequate facilities and others benefiting from their extensive parking amenities (see **Tables 2 and 3**).

To sum up, the Wilmington/Newark line stations, with the exception of Marcus Hook, are clearly disadvantaged as a result of rather meager parking arrangements. Despite generally having more parking than the Wilmington/Newark line, stations on the Media/Elwyn line are still often near or at maximum capacity for their parking lots. Thus, these stations are likely to have the potential to produce even greater boarding levels but are inhibited due to parking constraints. This is certainly the case at both Media and Elwyn stations where parking demand vastly outstrips availability. Finally, it seems that only the Delaware County stations on the Paoli/Thorndale line have ample parking to accommodate park-and-ride demand and consequently exhibit a far greater combined level of boarding than their presence in the County would initially suggest.

Unfortunately, providing additional parking at regional rail stations in Delaware County is rarely an easy task. Many of the regional rail stations were built in the 19th century and are simply not designed to operate in conjunction with large parking facilities. High urban density surrounding regional rail stations, particularly in the southern and eastern portions of Delaware County, may prevent any significant growth in parking spaces. Indeed, there are often several problems SEPTA may encounter when trying to build or expand parking lots, such as local opposition and very expensive land acquisitions.

Table 2. – Average Weekday Boarding Totals 2001, 2003, 2005, 2007 and the 2009 Boarding Rank for all Regional Rail Stations in Delaware County

Station	Average Weekday Total Boardings					Boarding Rank 2009
	2001	2003	2005	2007	2009	
Wilmington Line						
Marcus Hook	384	363	374	496	464	**9**
Highland Avenue	90	65	73	81	84	**28**
Lamokin Street	47	39	NA	NA	NA	**NA**
Chester	276	236	345	345	303	**13**
Eddystone	59	57	48	67	58	**29**
Crum Lynne	67	72	80	96	92	**27**
Ridley Park	239	228	227	273	248	**17**
Prospect Park	195	190	204	225	221	**20**
Norwood	233	213	222	269	220	**21**
Glenolden	238	189	184	193	223	**18**
Folcroft	148	141	157	176	174	**22**
Sharon Hill	122	134	130	161	119	**24**
Curtis Park	120	109	103	98	100	**25**
Darby	133	74	88	118	93	**26**
TOTAL	**2,351**	**2,110**	**2,235**	**2,598**	**2,399**	
Media Line						
Elwyn	379	370	481	445	504	**7**
Media	488	596	471	522	529	**5**
Moylan-Rose Valley	209	250	258	258	248	**16**
Wallingford	199	265	251	295	298	**14**
Swarthmore	565	729	723	742	786	**1**
Morton-Rutledge	504	552	553	616	569	**4**
Secane	436	409	460	514	522	**6**
Primos	300	357	329	366	364	**11**
Clifton-Aldan	341	274	298	334	339	**12**
Gladstone	170	198	186	229	221	**19**
Lansdowne	472	362	386	427	411	**10**
Fernwood-Yeadon	137	97	93	132	119	**23**
TOTAL	**4,200**	**4,459**	**4,489**	**4,880**	**4,910**	
Paoli Line						
Wayne	741	650	643	728	665	**2**
St. Davids	275	224	239	243	258	**15**
Radnor	525	451	439	493	487	**8**
Villanova	589	586	471	564	571	**3**
TOTAL	**2,130**	**1,911**	**1,792**	**2,028**	**1,981**	
GRAND TOTAL	**8,681**	**8,480**	**8,516**	**9,506**	**9,290**	

Source: SEPTA Regional Rail Ridership Census, 2001, 2003, 2005, 2007 and 2009

Table 3. – Parking Capacity, Utilization Counts, and Utilization Rates of All Regional Rail Stations in Delaware County, March 2011

Station	Total Parking Spaces (Free and Fee) (SEPTA and Other)	Total Car Count	Total Utilization %
Wilmington Line			
Marcus Hook	342	292	85%
Highland Avenue	13	8	62%
Chester			
Eddystone	12	12	100%
Crum Lynne	25	13	52%
Ridley Park	61	45	74%
Prospect Park	48	48	100%
Norwood	112	82	73%
Glenolden	72	58	81%
Folcroft	43	25	58%
Sharon Hill	35	21	60%
Curtis Park	24	24	100%
Darby	21	16	76%
TOTAL	**808**	**664**	**82%**
Media Line			
Elwyn	348	348	100%
Media	250	250	100%
Moylan-Rose Valley	149	149	100%
Wallingford	80	80	100%
Swarthmore	250	250	100%
Morton-Rutledge*	323	298	92%
Secane	86	86	100%
Primos	110	110	100%
Clifton-Aldan	142	142	100%
Gladstone	106	106	100%
Lansdowne	152	145	95%
TOTAL	**1996**	**1,964**	**98%**
Paoli Line			
Wayne	181	181	100%
St. Davids	107	107	100%
Radnor	220	161	73%
Villanova	167	167	100%
TOTAL	**675**	**616**	**91%**
GRAND TOTAL	**3,479**	**3,244**	**93%**

Source: SEPTA Regional Rail Division Parking Operations Survey Data, March 2011
* Includes parking spaces leased by AmVets to SEPTA near the Morton-Rutledge station

3　Bus Transit

3.1　Overview of Delaware County Bus Transit

Of all the public transit modes, buses provide the greatest flexibility and accessibility to the public. Unlike track-based systems, such as trolleys, regional or high-speed rail, bus routes can be quickly and periodically altered in order to respond to changing commuter demand. The comparatively low costs associated with bus transit represent a cost-effective means to transport large volumes of people within urban and suburban environments.

As outlined in the introduction section of this report, there were twenty-seven Delaware County bus routes as of September 30, 2011. These were defined as buses that operate all or a majority of their route within the borders of Delaware County. Perhaps not surprisingly, eighteen of these twenty-seven bus routes depart and terminate at Upper Darby's 69th Street Terminal.

During the compilation of this report, SEPTA discontinued one bus route serving Delaware County, while instituting another route. The discontinued route was the 306. While service within Delaware County of this route ceased in September 2010, the full closure of the entire Route 306 was set to occur in November 2011.

Due to increased demand for service to Delaware County Community College, SEPTA altered the Route 112 bus and created an additional route, the 126. Because route 126 has just been created, there is no available ridership data.

The current bus route network in Delaware County runs heavily along the major east-west arterial roads, as would be expected. For example, Chester Pike (U.S. Route 13), MacDade Boulevard, U.S. Route 1, and West Chester Pike are each served by several routes. The bus network displays crisscross patterns on a north-south axis, such as the Route 118 from Chester City to Newtown Square, the Route 117 from Feltonville to Penn State, and the Route 114 from Darby Transportation Center to Granite Run Mall to name a few. Bus routes frequently intersect wherever possible to provide connecting service for passengers to regional rail or light rail or as "feeder services" to other bus routes. The result of this multitude of interconnecting routes running north-south, east-west, and various combinations in between is the most dense and intricate bus network in the Delaware Valley outside of the City of Philadelphia. The bus network is most complete in the southern and eastern portions of Delaware County and becomes much sparser in the northern and western portions. This is in line with density of development and population centers in the County. The northern portion of the County also boasts significant regional rail and high-speed rail access which tends to supplant some bus ridership.

SEPTA breaks down its bus routes into different divisions. City Transit Division covers buses operating in the City of Philadelphia – including routes that partially serve suburban counties. Suburban Transit boasts the Victory and Frontier Divisions. Victory handles Delaware County routes, while Frontier handles bus routes for Bucks, Chester,

and Montgomery Counties. Lastly, SEPTA has Contract Operations. These routes are located throughout SEPTA's geographic region and are predominantly "loop" service buses or feeder services to/from regional rail stations.

3.2   Total Delaware County Bus Ridership

An average daily total of 40,940 people rode on the Delaware County bus network in FY2010; making it by far the highest used suburban system. The twenty-one bus routes of SEPTA's Frontier Division averaged only 13,250 daily passengers in comparison. **Figure 8** shows the ridership on the twenty-one bus routes in Delaware County increasing over the last six years and nearing 41,000.

Figure 8: Total Average Daily Passengers for Delaware County Bus Routes, FY 2005-2010
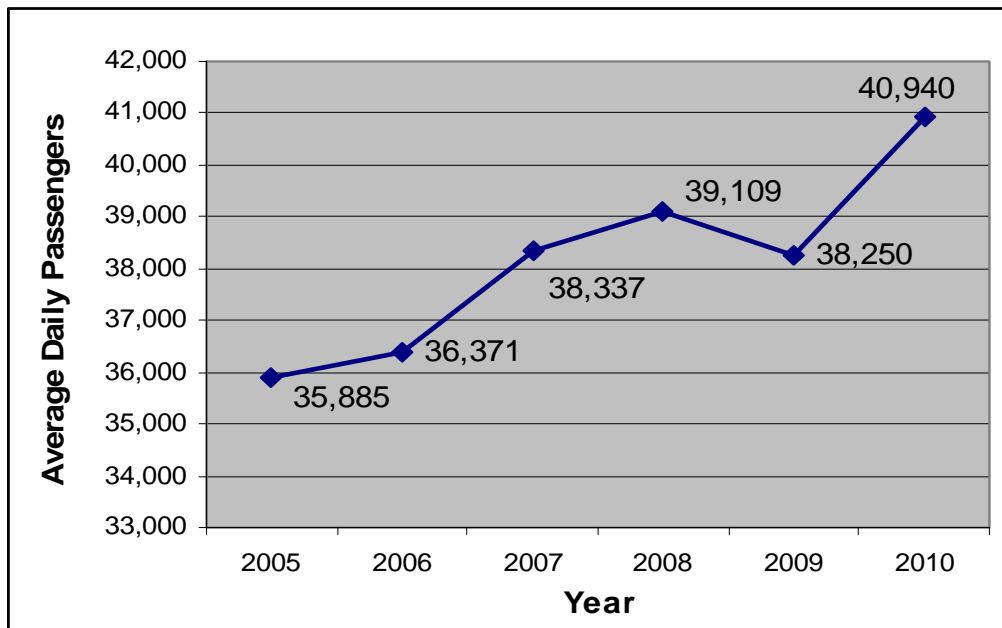
Source: SEPTA Annual Route Operating Ratio Report, FY 2005-2010

3.3   Delaware County Bus Ridership by Route

A deeper investigation into the ridership levels by individual bus routes within Delaware County reveals considerable variations among routes although they all maintain steady ridership levels year after year. The highest ridership in SEPTA's Frontier Division routes would fall in the middle of the pack on bus routes in the Victory Division, so ridership in Delaware County still surpasses other suburban counties. As **Figure 9** demonstrates, a broad variation in ridership is clearly prevalent, with some of the most heavily used bus routes in Delaware County often achieving daily ridership levels several times greater than those of the less-used routes.

Figure 9. – Average Daily Passengers by Individual Route for Delaware County Bus Routes, FY 2007-2010
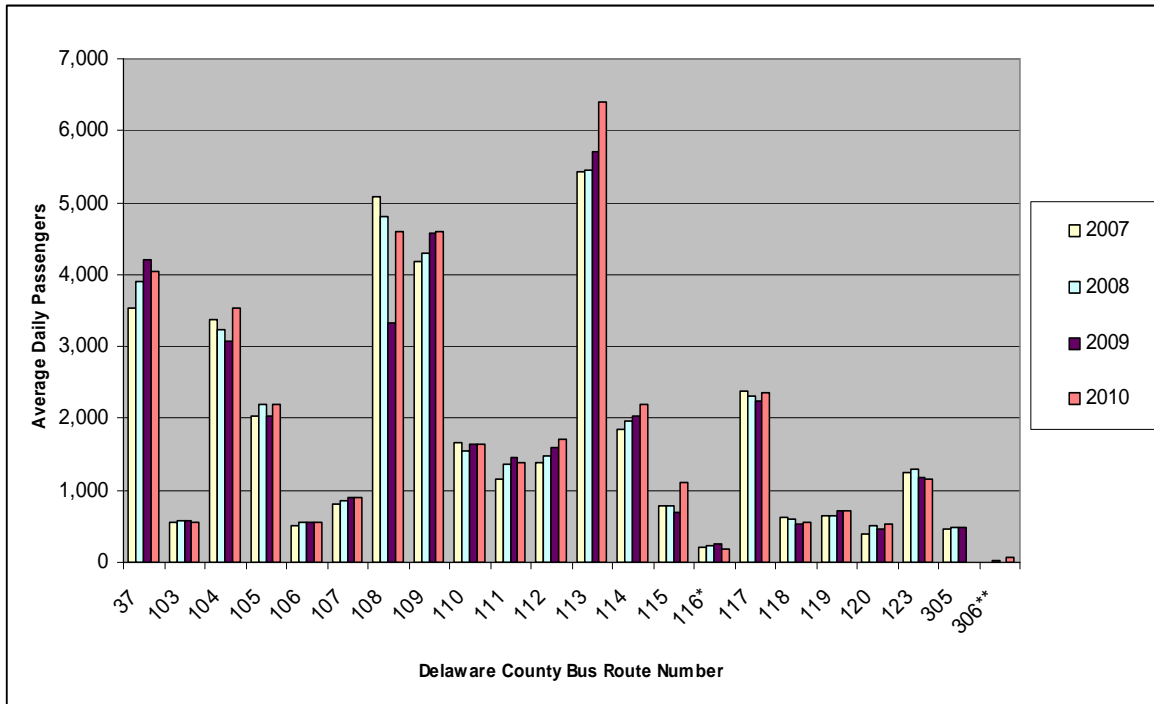
Source: SEPTA Annual Route Operating Ratio Report, FY 2005-2010

It is possible to provide potential explanations for this variation in ridership by studying the factors associated with the precise frequency, distance, and geography of an individual route. These factors will likely help to account for ridership levels, whether they are exceptionally high or low. According to SEPTA's FY 2010 ridership counts, Delaware County's top eight bus routes all have average daily ridership levels above 2,000, with the top route exceeding 6,000. These routes are noticeably higher in **Figure 9** than the majority of other routes. The course of each route and the 2008 average daily ridership figures are listed for the top eight Delaware County routes:

1. **Route 113**: 69th Street Terminal to Marcus Hook via Darby Transportation Center and Chester Transportation Center – 6,400

2. **Route 108:** 69th Street Terminal to Philadelphia International Airport or UPS, via Yeadon and Eastwick – 4,604

3. **Route 109:** 69th Street Terminal to Chester Transportation Center via Lansdowne and Springfield – 4,587

4. **Route 37:** South Philadelphia to Eastwick and Chester Transportation Center via Philadelphia International Airport – 4,050

5. **Route 104:** 69th Street Terminal to West Chester University via Newtown Square – 3,532

6. **Route 117:** Feltonville to Penn State via Chester Transportation Center and Granite Run Mall – 2,350

7. **Route 105:** 69th Street Terminal to Ardmore and Paoli via Lankenau Hospital – 2,187 (tie)

7. **Route 114**: Darby Transportation Center to Granite Run Mall via Chester – 2,187 (tie)

The top ridership bus routes have the highest frequencies. All eight of the top routes have weekday headways of at least 30 minutes during peak hours, and Routes 37, 104, 108, 109, and 113 have 15-minute morning peak hour headways. All bus routes represented above operate out of the Victory Division, except Route 37, which is a City Transit route.

The presence of Routes 104 and 105 on the top eight Delaware County bus routes can best be explained by the next determining factor for ridership – route distance. Given that these routes travel in less densely populated areas of the County, they garner their high ridership numbers by traveling longer distances. Naturally, the longer a route, the more areas it can serve and thus attract more passengers. Both Routes 104 and 105 are two of the longest Delaware County bus routes and even serve neighboring counties. Route 104 traverses over twenty miles across the entire County along West Chester Pike and terminates in the Borough of West Chester (Chester County). Similarly, Route 105 follows the "Main Line" through Delaware, Montgomery, and Chester Counties, totaling over fifteen miles. Both routes intersect major passenger destinations including several shopping centers, office parks, colleges and universities, civic centers, and employers, such as Paoli and Lankenau Hospitals on Route 105.

Of equal significance to either frequency or distance, though perhaps initially less obvious, is the fact that five of the top eight routes travel through the City of Chester – the 37, 109, 113, 114, and 117. Thus, these very high ridership levels can be seen to reflect the general socio-economic geography in Delaware County as a whole. Chester City, with a population of almost 34,000, is also one of the most economically disadvantaged areas in the County and region. In the 2005-2009 American Community Survey 5-Year Estimate, produced by the U.S. Census Bureau, median household income was just under $25,000 a year. This combination of relatively high population density and economic deficiency produces an environment highly conducive to bus transit, as people often have no other choice for transportation. This trend can be viewed within the wider picture of Delaware County. Bus routes traveling through the economically distressed areas of the County typically have higher passenger ridership levels than an equivalent route in a more prosperous area.

3.4   Delaware County Bus Revenue Recovery by Route

In FY 2010, SEPTA had fully allocated expenses totaling $56,045,946 (24% cost recovery) and variable expenses totaling $41,380,451 (32% cost recovery) from the operation of the twenty-one Delaware County bus routes but only collected $13,435,035 in fare box revenue. In order to minimize this deficit, it is SEPTA's aim that bus routes recover as much of their operating expenses through the fare boxes as possible.

Generally, the percentage of cost recovery is considered to be a good indicator of a route's performance, with more successful routes achieving a greater cost recovery rate. Similarly, those routes with excessively low cost recovery percentages are deemed to be performing poorly and may be subject to review or restructuring.

There are two methods by which SEPTA measures expenses incurred through operation of its transit routes – variable expenses and fully allocated expenses. Variable expenses include costs that vary depending on the particular route, such as vehicle hours (operator wages/benefits) and vehicle miles (fuel, tires, parts, maintenance labor, claims, and expenses). Fully allocated expenses are a combination of variable expenses plus the more rigid overhead costs including associated support staff, vehicle facilities, utilities, and rent, to name a few. Thus, dividing passenger revenue by variable and fully allocated expenses can generate two cost recovery percentages for a particular route. The fully allocated expenses recovery percentage is lower than the variable expenses recovery percentage. This can be seen in **Figure 10**, which shows both the variable and fully allocated cost recovery percentage for each of the twenty-two Delaware County bus routes for 2010. These cost recovery rates have remained more or less stable over the last ten years, so for the purposes of simplicity, only the most recent 2010 data has been analyzed in this report.

Figure 10. – Full and Variable Cost Recovery Rates by Individual Route for Delaware County Bus Routes, FY 2010
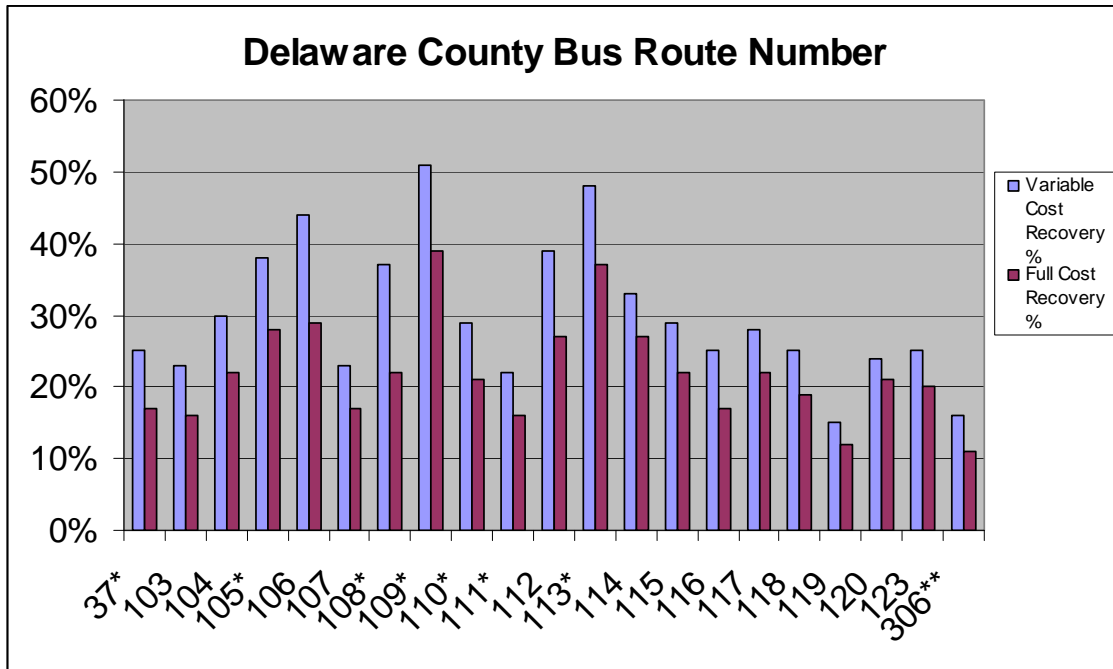
* Passenger subsidy on route is included
  Source: SEPTA Annual Route Operating Ratio Report, FY 2010

As **Figure 10** demonstrates, variable cost recovery rates do not generally exceed 50%, which was only achieved by Route 109. Average recovery rates for the twenty-one Delaware County bus routes are 30% for variable and 22% for fully allocated expenses. In general, cost recovery rates of the various routes reflect ridership levels. The lower the ridership, the less funds SEPTA recovers.

3.5   Conclusions – Bus Transit is a Reflection of Urban Geography

As has been demonstrated in this section, Delaware County is fortunate to have twenty-one bus routes (twenty-seven including the routes that enter the county) serving all areas of the county. These complement the other transit modes and lead to a more inclusive transit network. Generally, the wide variation amongst these routes in terms of ridership is a reflection of basic route variables, such as frequency and distance (see **Table 4**). Of perhaps greater significance, however, is how the highest bus route ridership levels of Delaware County strongly correlate with areas of socio-economic distress in the southern and eastern portions of the County.

However, it must be remembered that all attempts to increase frequencies, span of service, or expand and create new routes are faced with one crucial constraint–SEPTA's continuing need to maintain a certain degree of financial return on its bus routes (see **Table 5**). It has been shown that these restrictions can be partially overcome by external subsidization, such as the JARC program. Yet ultimately, SEPTA will not operate a bus route unless it can recover an acceptable level of costs from the fare box. Suburban

Transit Division bus routes below or near the minimum full cost recovery threshold of 19% may be eligible for review or restructuring. Within Delaware County, it seems that Routes 103, 107, 111, 116, 118, and 119 are possible candidates for this process.

Overall, the bus transit network still remains a major asset for the social and economic vitality of Delaware County. Within the broader geographic region of the Delaware Valley, the data available for bus transit from Delaware County depicts the County as somewhat of a middle ground between the City of Philadelphia and the other suburban counties in Pennsylvania. Delaware County's 2010 average daily bus ridership level of 40,940 fell in between the 474,981 of the City Transit buses and the 13,250 of the Frontier Division. Similarly, the variable cost recovery rate for Delaware County bus routes of 30% was again in between the 44% for City Transit buses and the 24% of the Frontier Division buses.

Table 4. – Average Weekday Count of Passengers for Delaware County Bus Routes, FY 2005-2010

Delaware County Bus Route	2005	2006	2007	2008	2009	2010
37	3,241	3,307	3,541	3,909	4,198	4,050
103	601	571	557	580	587	559
104	3,512	3,505	3,375	3,240	3,082	3,532
105	2,319	2,321	2,035	2,185	2,037	2,187
106	644	604	508	545	559	550
107	469	549	810	850	896	896
108	3,060	3,237	5,075	4,815	3,336	4,604
109	4,190	4,185	4,192	4,301	4,565	4,587
110	1,734	1,731	1,662	1,548	1,635	1,635
111	1,077	1,127	1,165	1,358	1,445	1,378
112	1,403	1,405	1,386	1,490	1,605	1,715
113	5,277	5,366	5,423	5,446	5,698	6,400
114	1,918	1,813	1,859	1,974	2,032	2,187
115	694	767	797	783	695	1,098
116*	NA	NA	200	220	244	196
117	2,520	2,575	2,386	2,314	2,243	2,350
118	622	626	630	590	540	550
119	641	601	640	656	711	716
120	354	374	395	500	468	526
123	1,147	1,207	1,236	1,286	1,188	1,150
126**	N/A	N/A	N/A	N/A	N/A	N/A
305	462	500	465	487	486	N/A
306***	N/A	N/A	N/A	32	N/A	74
TOTAL	35,885	36,371	38,337	39,109	38,250	40,940

* Old Route 116 was discontinued in November 2004. New Route 116 was created for FY 2007.

** New Route 126 was created in FY2011 and did not have ridership statistics available

*** - Route 306 is a Contract Operations route funded under Congestion Management System (CMS) funds from PennDOT. That route began in March 2007.

Source: SEPTA Annual Route Operating Ratio Reports, FY 2005-2010

Table 5. – SEPTA Delaware County Bus Route Variable and Full Cost Recovery Rates for FY 2010

Delaware County Bus Route	Variable Cost Recovery %	Full Cost Recovery %
37*	25%	17%
103	23%	16%
104	30%	22%
105*	38%	28%
106	44%	29%
107	23%	17%
108*	37%	22%
109*	51%	39%
110*	29%	21%
111*	22%	16%
112	39%	27%
113*	48%	37%
114	33%	27%
115	29%	22%
116	25%	17%
117	28%	22%
118	25%	19%
119	15%	12%
120	24%	21%
123	25%	20%
126**	N/A	N/A
306***	16%	11%

* Passenger subsidy included
** Route 126 did not have cost recovery data available
*** Contracted Route, only full cost recovery numbers available
Source: SEPTA Annual Route Operating Ratio Report, FY 2010

4   Light Rail

4.1   Overview of Delaware County Light Rail

Delaware County's public transit network is fortunate enough to have four light rail routes currently operating. As has been explained in the introduction section, trolley Routes 11 and 13 terminate at the Darby Transportation Center in Delaware County; however, for the purposes of this report, they will not be considered Delaware County routes as each of them travels within the County for about a mile or less before crossing into the City of Philadelphia. The Routes 101 and 102 trolley lines will be the focus of this chapter.

4.2   The Route 11 and Route 13 Trolley Lines

The Route 11 and Route 13 trolleys provide service into Delaware County at the Darby Transportation Center. The Darby Transportation Center serves as a transfer point for SEPTA bus Routes 113, 114, and 115.

While the Routes 11 and 13 trolleys provide service into Delaware County, they operate a large portion of their route within the City of Philadelphia and, therefore, are not considered in the light rail ridership statistics found within this report.

Generally, the Routes 11 and 13 operate almost twenty-four hours a day, seven days a week. Frequency is on a more limited basis between 1:00 a.m. and 6:00 a.m.; however, between the hours of 6:00 a.m. and 10:00 p.m., the trolleys have headways of less than 20 minutes. Between 10:00 p.m. and 1:00 a.m., the headways are between 25 and 30 minutes.

These trolleys serve a denser, more populated area than the Media-Sharon Hill Routes 101 and 102, which gives them a higher ridership. The 11 trolley averages 16,072 daily passengers and 4,885,888 annual passengers. The 13 trolley has an average daily passenger count of 16,332 and 4,964,928 annual passengers.

4.3   The Media-Sharon Hill Trolley Lines, Routes 101 and 102

Delaware County is unique because of the trolley routes which traverse the County's first-generation suburbs and are as central to these neighborhoods' character as they are to the public transit network of Delaware County. Both the Routes 101 and 102 trolleys run together for just over two miles on their own exclusive right-of-way from Upper Darby until Drexel Hill Junction (Shadeland Avenue), at which time they branch out to two separate destinations (see **Figure 11**). The shared track is commonly referred to as the trunk line. After Drexel Hill Junction, Route 101 continues on its own right-of-way traveling west and southwest through Drexel Hill and Springfield before entering Media where it terminates. The 101 has double tracks up to Woodland Avenue, at which time there is only a single track until just before Pine Ridge. It then has double tracks until the Bowling Green station. At Bowling Green station, it enters the street in Media where it runs on a single track in the middle of State Street where cars have to yield to the

trolley until its terminus at Orange Street in Media. The Route 101 branch operates over eight miles between Drexel Hill Junction and Orange Street.

Route 102 runs for over five miles southeast from Drexel Hill Junction through Drexel Hill and Clifton Heights and then goes into the street in Clifton Heights and Aldan. After Aldan, it goes back onto its own right-of-way, passing through Collingdale before terminating at Chester Pike (U.S. 13) in Sharon Hill. The 102 has double tracking from Drexel Hill Junction to Sharon Hill near Chester Pike (U.S. 13) [including operating in the street within Aldan Borough].

Figure 11. – The Route Map for the Media-Sharon Hill (101 and 102) Trolley Lines

Source: SEPTA Website (www.septa.org)

Frequency on both routes can be as low as 10-minute headways during peak weekday hours, though usually 20 or 30 minutes. Service on the weekend is reduced with headways between 30 minutes and 60 minutes depending on the time of day.

4.4   Ridership on Delaware County Light Rail Transit

For the last five years, light rail ridership has experienced a steady increase; however, there was a slight decrease from 2005-2006 and again most recently from 2009 to 2010 (see **Figure 12**).

Figure 12. – Average Daily Passengers by Total and Individual Route for Delaware County Light Rail, FY 2005 – 2010
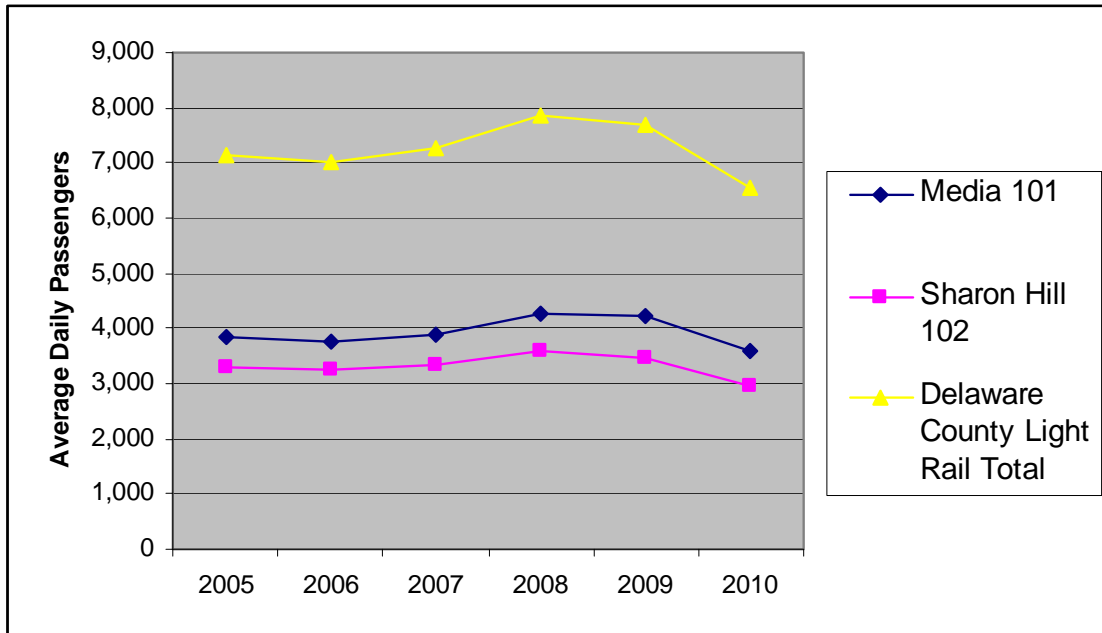
Source: SEPTA Annual Route Operating Ratio Report, FY 2005 - 2010

The most recent decline in ridership levels between 2008 and 2010 can be attributed to a major SEPTA initiative which took place during 2009 and 2010 to improve the lines and select stations along Routes 101 and 102. Construction began on Route 102 in September of 2009 and along Route 101 in early 2010. During the construction period, which was completed in August 2010, both trolley lines were temporarily replaced with a bus line, greatly affecting both lines and leading to a decrease in daily passengers. The $34 million dollar project, which was funded through the American Reinvestment and Recovery Act, has helped to improve the service reliability, safety, and rider comfort of the lines. While the construction along Routes 101 and 102 contributed to a decline in ridership during 2009 and 2010, the resulting improvements are likely to attract an increasing number of riders in the upcoming years.

As would be expected, average daily ridership on the Media and Sharon Hill trolley lines has closely paralleled each other over the last eight years. Any change in ridership has affected both routes almost equally over the years, which can be largely attributed to their common trunk line from 69th Street Terminal to Drexel Hill Junction. Thus, any change in ridership along this densely populated and highly used portion of the line will have equal effect on both routes as riders have the option to take either trolley. The Route 101 branch has higher ridership, receiving 500-700 more riders per day than the Route 102 between 2000-2010. This consistently higher ridership on the Route 101 is most probably due to its greater length and service to Springfield Mall, the Drexelbrook apartment complex, and Media, the county seat of Delaware County.

An additional element contributing to higher ridership on the Media trolley branch is the existence of SEPTA parking facilities at certain stops. As has been

29

demonstrated in the regional rail chapter (Chapter 2), parking lots are essential for encouraging park-and-ride commuting. As **Figure 13** demonstrates, only six stops have parking lots, all but one of which has less than fifty spaces. In general, the extent of the parking provisions on the Media branch is not sufficient enough to generate any substantial park-and-ride patterns, and in this case the commuting practices of this route have more in common with bus transit than regional rail. Even without generating an extremely large park-and-ride clientele, the availability of parking still factors into the ridership on the Route 101 branch.

  Figure 13 and **Table 8** also show stations without occupied parking. Drexeline's parking facility is located on private property and is owned by the shopping center. While parking is free and utilized by many SEPTA passengers, it is not owned, operated, or maintained by SEPTA.

Figure 13. – Total Parking Capacity and Utilization of Route 101 Media Trolley Stations, March 2011
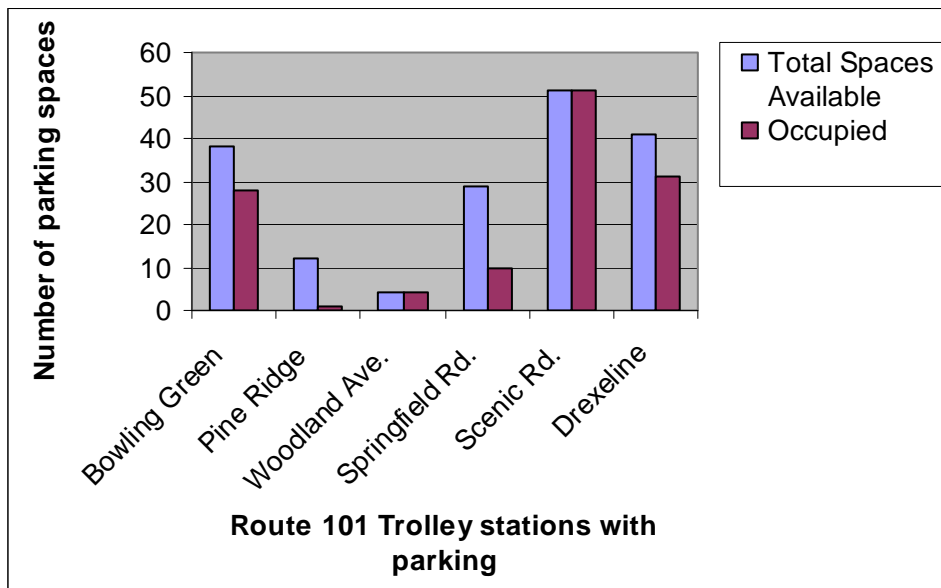
Source: SEPTA Suburban Transit Parking Operations Survey Data, March 2011

4.5 Revenue Recovery on Delaware County Light Rail

  Figure 14 and **Table 6** illustrate a much greater disparity between variable and full cost recovery rates among light rail than buses. The average difference between variable (37%) and full (20%) cost recovery rates on Delaware County's light rail system is 17%, when compared to the average difference on buses of 8% (30% variable and 22% full cost recovery). These figures help confirm a major shortcoming in the operation of light rail transit. It is in the multitude of supporting operations included in the full costs, such as track and power supply maintenance, that the expense of operating light rail transit really adds up when compared to bus transit.

Figure 14. – Full and Variable Cost Recovery Rates by Individual Route and Average for Delaware County Light Rail, FY 2010
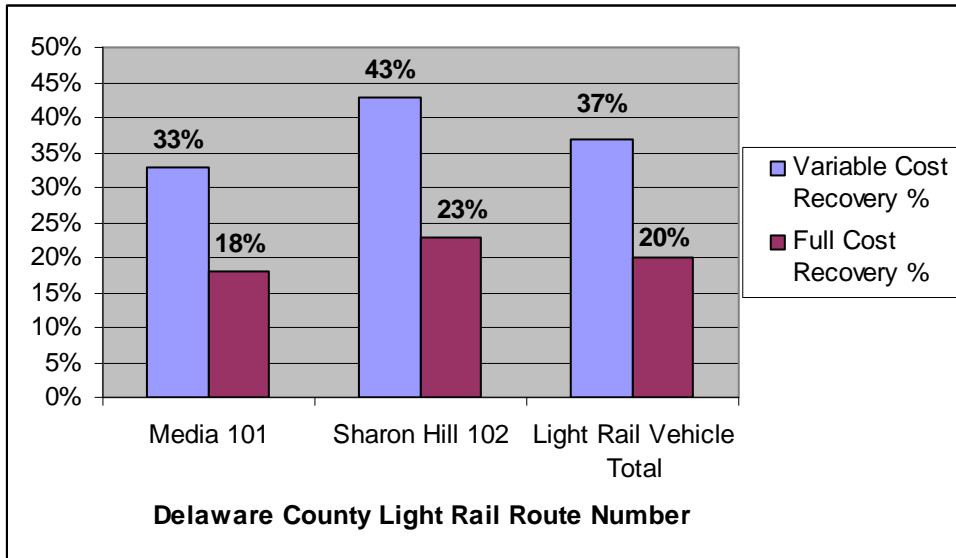
Source: SEPTA Annual Route Operating Ratio Report, FY 2010

Table 6. – Full and Variable Cost Recovery Rates by Individual Route and Average for Delaware County Light Rail, FY 2010

	Variable Cost Recovery %	Full Cost Recovery %
101	33%	18%
102	43%	23%
Light Rail Vehicle Total	37%	20%

Source: SEPTA Annual Route Operating Ratio Reports, FY 2010
These numbers include shuttle busing during construction

4.6   Conclusions – Light Rail is a Unique Asset to Delaware County

Light rail remains a unique facet of the Delaware County public transit scenario. As some individuals may assume, light rail is not of the dying breed; however, it remains a stronghold for SEPTA's commuting market in Delaware County and continues to produce higher ridership year after year (see **Table 7**).

Table 7. – Average Daily Passengers by Total and Individual Route for Delaware County Light Rail, FY 2005-2010

	2005	2006	2007	2008	2009	2010
Media 101	3,834	3,766	3,905	4,280	4,239	3,600
Sharon Hill 102	3,298	3,252	3,343	3,579	3,468	2,946
Delaware County Light Rail Total	**7,132**	**7,018**	**7,248**	**7,859**	**7,707**	**6,546**

Source: SEPTA Annual Route Operating Ratio Reports, FY 2005-2010

Table 8. – Total Parking Capacity and Utilization Counts and Rates of Route 101 Media Trolley Stations, March 2011

	Total Parking Spaces	Total Car Count	Total Utilization %
Bowling Green	38	28	74%
Pine Ridge	12	1	8%
Woodland Ave.	4	4	100%
Springfield Rd.	29	10	34%
Scenic Rd.	51	51	100%
Drexeline	41	31	76%
TOTAL	175	125	71%

Source: SEPTA Suburban Transit Parking Operations Survey Data, March 2011

5   High-Speed Rail

5.1   Overview of High-Speed Rail

SEPTA's system boasts three high-speed rail lines, two of which serve Delaware County: the Norristown High-Speed Line (NHSL) and the Market- Frankford Elevated Line (MFL). The Broad Street Line is the third high-speed rail line; however, it is located within the City of Philadelphia only. Connections can be made from the MFL and several bus routes to make use of the Broad Street Line. The NHSL and the MFL produce a large portion of the ridership on SEPTA's system (**Table 9**). High-speed rail differs from light rail in that it operates solely on a dedicated track, whereas light rail shares portions of its operating route on the street.

5.2   Norristown High-Speed Line (NHSL)

SEPTA's NHSL is an interurban route operating for just over thirteen miles between 69th Street Terminal and the Norristown Transportation Center via Bryn Mawr, Villanova, and Gulph Mills (see **Figure 15**). In general, the line runs closely parallel to the northeastern border of Delaware County with Philadelphia and later Montgomery County before turning north towards Norristown. Out of the total twenty-two stations located within Delaware County, sixteen provide frequent service for residents of Upper Darby, Haverford, and Radnor Townships.

During peak hours, headways are reduced to 10 or 15 minutes. Service is still relatively frequent at other times and on the weekends, with maximum headways of 30-40 minutes. Service operates from 4:20 a.m. – 1:54 a.m. Monday through Friday and from 4:45 a.m. – 2:00 a.m. on weekends.

Figure 15. – The Route Map for the Norristown High-Speed Line

LEGEND

- ○ **LOCAL** stops at all stations
- ● **EXPRESS** stops at selected stations between 69th St. and Bryn Mawr then local to Norristown Transportation Center
- ● **HUGHES PARK EXPRESS** stops between Beechwood-Brookline and Hughes Park stations
- ● **LIMITED** stops at selected stations between 69th St. and Gulph Mills then local to Norristown Transportation Center
- **PS** Paid Parking Available
- **P** Free Parking Available
- ♿ Wheelchair accessible station

INFORMATION

Customer Service	215-580-7800
TDD/TTY	215-580-7853
Website	www.septa.org

Stations: Norristown Transportation Center, Main St, Bridgeport, DeKalb St, Hughes Park, Gulph Mills, Matsonford, County Line, Radnor, Villanova, Stadium (Ithan Ave), Garrett Hill, Roberts Rd, Bryn Mawr, Haverford, Ardmore Ave, Ardmore Jct, Wynnewood Rd, Beechwood-Brookline, Penfield, Township Line Rd, Parkview, 69th Street Transportation Center

Manayunk/Norristown Regional Rail Line Elm St. / Manayunk/Norristown Regional Rail Line to Center City Philadelphia

Upper Merion / Lower Merion / Radnor / Haverford / Upper Darby

Trolley Lines Route 101 Media, Route 102 Sharon Hill

Market-Frankford Line Eastbound to Frankford Transportation Center

Source: http://www.septa.org

The NHSL has maintained an exceptionally high average daily ridership level of around 8,000 for the last ten years. In fact, between fiscal years 2001 and 2010, more people rode the line per day than both the Media 101 and Sharon Hill 102 trolleys combined. While it must be acknowledged that a significant portion of the NHSL runs through Montgomery County, it remains the most popular route in the entire Delaware County public transit system by close to 3,000 additional daily riders than the next closest route. Unlike the general trend in Delaware County public transit, which has largely stabilized since 2003, average daily ridership on the NHSL has jumped from 7,925 in 2003 to 9,442 in fiscal year 2008. A slight decrease in average daily ridership occurred in fiscal years 2009 and 2010, which more than likely can be attributed to the economic recession and construction on the line.

As has been previously mentioned, the NHSL has several advantages over the other light rail routes in Delaware County, including exclusive right-of-way, high-level stations and an extensive route length. It seems that the success of the line in terms of ridership is due to its unique blend of both light rail and regional rail qualities. It is a high frequency link from the 69th Street Terminal to the office/business parks of Radnor and

Upper Merion Townships and to Norristown, the seat of Montgomery County. Thus, this extensive route also benefits from a high reverse commute ridership. In contrast to the Media 101 trolley, the NHSL has sufficient parking facilities at some of its Delaware County stations to generate the type of park-and-ride commuter traits more commonly associated with a regional rail line (see **Figure 16** below).

Figure 16. – Total Parking Capacity and Utilization of Norristown High- Speed Line Stations in Delaware County, March 2011
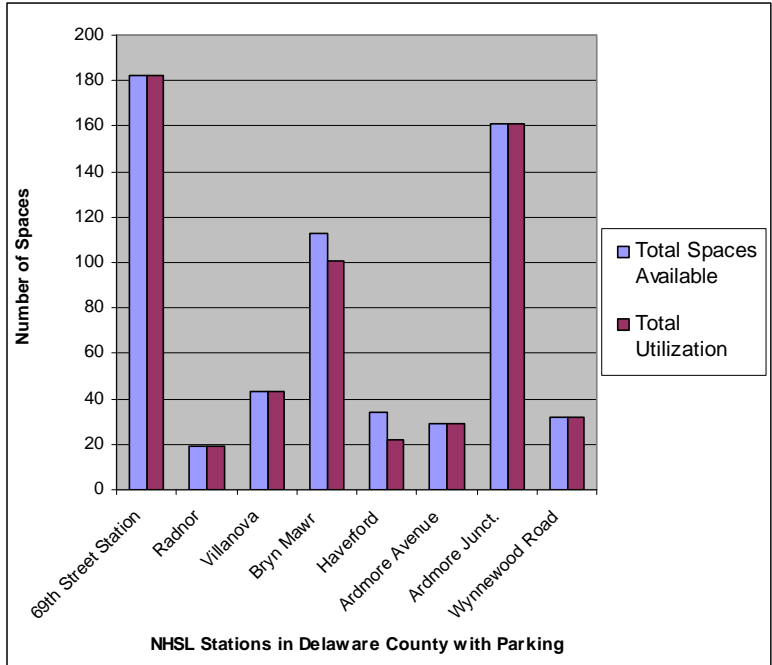
Source: SEPTA Suburban Transit Parking Operations Survey Data, March 2011

As **Figure 16** demonstrates, parking is available at eight stations. Although half of these stations have lots with capacities of less than forty cars, there are two notable exceptions – Ardmore Junction and Bryn Mawr, both in Haverford Township. These stations have provisions for 161 and 113 cars, respectively, which help expand the catchment area of the line well beyond what would normally be expected for that of a traditional light rail system. Perhaps more compelling evidence of park-and-ride commuting are the utilization rates at the Delaware County NHSL stations, which were found to average over 90%, with several stations having a 100% utilization rate.

5.3 Market-Frankford Elevated Subway

The Market-Frankford Elevated Subway is a combined elevated train and subway system that operates in the City of Philadelphia and Delaware County. The EL, as it is known, serves Delaware County with two stations: 69th Street Terminal and Millbourne.

The EL is the major rail link from the western suburbs into the City of Philadelphia. From 69th Street Terminal, it follows Market Street until it reaches the

Penn's Landing area, then turns to follow Front Street and Kensington and Frankford Avenues to reach its terminus at the Frankford Transportation Center. In its entirety, the EL carries 51,620,640 passengers annually. Financially, the EL performs well recovering expenses related to its operation, as can be seen in **Table 9**.

69th Street Terminal has an enormous ridership due to its being on one end of the line and a connector for bus, light rail, and high-speed rail service to the western suburbs. It serves as a focal point for the majority of Delaware County bus routes and other light and high-speed rail services. 14,801 average daily EL riders travel through 69th Street Terminal.

Table 9. – High-Speed Rail Ridership and Revenue in Delaware County, FY 2010

Service	Total Annual Passengers	Passenger Revenue	Variable Expenses	Variable Recovery	Fully Allocated Expenses	Full Cost Recovery
Market-Frankford Elevated Subway	51,620,640	$48,092,533	$31,110,245	155%	$110,339,045	44%
Norristown High-Speed Line	2,489,200	$2,880,004	$5,892,604	49%	$10,853,204	27%

Source: SEPTA FY2010 Route Operating Ratio Report

5.4   Conclusions – High-Speed Rail is a Necessary Service

With the high ridership produced by high-speed rail, SEPTA has made many investments in stations along the lines in order to maintain the quality amenities that passengers expect. SEPTA has recently begun discussing the possibility of extending the NHSL from its current terminus in Norristown out to King of Prussia to provide service to the King of Prussia Mall and other job centers around the mall.

High-speed rail is a definite asset to Delaware County as we receive a large amount of service from two lines. The accessibility that is provided by the NHSL and Market-Frankford Line improves job prospects of County residents and provides an alternative to single occupant vehicles congesting our local roadways.

6 Paratransit

6.1 Overview of Delaware County Paratransit

Paratransit is defined as a demand-responsive, shared-ride public transportation service operating on a non-fixed route basis for individuals who are unable to use fixed-route transit systems. This includes seniors, the disabled and low-income individuals suffering from severe medical conditions. The primary operator of paratransit services within Delaware County is *Community Transit of Delaware County, Inc.*, (CTDC), a private, nonprofit organization based in Eddystone Borough. CTDC has a total staff of approximately 140 employees and a fleet of over 100 vehicles. Vans and minibuses, many of which have to be wheelchair accessible, are the typical modes employed to transport paratransit passengers.

Trips are made on a "demand responsive" first-come, first-served basis, with most passengers having to schedule a trip at least two or three days in advance. Rides are available Monday through Friday from 6:00 a.m. to 6:00 p.m. and on Saturdays from 6:00 a.m. to 4:00 p.m. Dialysis transportation is available Monday through Saturday from 5:30 a.m. to 8:00 p.m. Although *Community Transit* extends its transit service to all Delaware County residents, the vast majority of passengers participate in three key programs – SEPTA Customized Community Transportation (CCT), the Senior Shared-Ride Program, and the Medical Assistance Transportation Program (MATP). The nature and structure of these programs will be explained accordingly.

6.2 SEPTA Customized Community Transportation (CCT)

Under requirements passed into law in the *Americans with Disabilities Act* (ADA) of 1990, SEPTA, like all transit agencies in the United States, must provide comparable transportation service to those with disabilities who are functionally unable to use regular fixed-route transit for some or all of their transportation needs. SEPTA operates CCT within the City of Philadelphia, but separate contract carriers operate SEPTA's CCT service for the four suburban counties.

SEPTA leases vehicles to *Community Transit* exclusively for transporting ADA passengers. It is the direct responsibility of each carrier to provide rides to customers, train the drivers, and maintain vehicles. However, SEPTA oversees each county contract carrier, provides centralized driver training, and also manages the reservation, scheduling, and monitoring functions for all contract carriers, with the exception of Chester County. Monthly, CTDC invoices SEPTA for services rendered, and SEPTA reimburses CTDC. The County of Delaware, along with the four other suburban counties, provides funding to SEPTA to pay for CCT service.

In order to be eligible for the CCT program, individuals with disabilities must complete an extensive application process and gain subsequent approval from SEPTA. Unsuccessful applicants may also appeal their decision to a hearing board. Qualified CCT passengers may travel wherever SEPTA's fixed-route transit system operates. However, under ADA requirements, CCT passengers must begin and end their journey within three

quarters of a mile radius from a stop in SEPTA's bus or light rail network or certain designated "key stations" on the regional rail lines. Inter-county transit may require transferring to another CCT carrier at designated transfer points. The base fare for each CCT ride is $4.00, which may be paid for with cash, tokens, or a trail pass. An additional fare of $1.00 is required on trips that go over three miles beyond the County line. There is a $1.00 zone charge for distances beyond ten miles for trips beginning in the suburban counties.

6.3   Shared-Ride Program

CTDC is also contracted to operate Delaware County's Shared-Ride Program. This program allows senior citizens who are at least 65 years old to use paratransit services for their transportation needs at a heavily discounted rate. The Shared-Ride Program is a statewide initiative administered on a county-by-county basis. Funding is provided by the Pennsylvania State Lottery funds through a grant from the Pennsylvania Department of Transportation (PennDOT). Senior citizens are entitled to pay only 15% of the total fare of the journey; with the PA Lottery funds making up the remaining 85% (see **Table 10**). Trips have to originate in Delaware County and can go anywhere in the County or the City of Philadelphia. Limited trips are available to locations in Chester and Montgomery Counties.

In common with most paratransit programs, passengers must first be registered with *Community Transit* and request a trip. Reservations can be made at least one day in advance or up to two weeks in advance. Riders can also schedule trips up to 3:30 p.m. the day prior to when they want to take their trip; however, rides are provided on a first-come, first-served basis. Community Transit takes reservations and manages scheduling directly under this program. As the name suggests, riders share vehicles with other passengers, so trips take longer than by car and may have multiple pick-up and drop-off points. CTDC reserves the right to deny a trip request when it cannot be combined with other trips. Senior citizens are required to bring the exact cash fare, or a personal check and valid identification for the discount. Escorts may accompany a senior citizen, provided that prior notice is given. The fare for traveling escorts is $5.00 each way within Delaware County and $10.00 each way to Philadelphia.

The fare structure for the Shared-Ride Program for 2010 is shown in Table 10. These fares were in still in effect as of the compilation of this report.

Table 10. – The Fare Structure for the Shared-Ride Program, with Applicable Senior Discounts as of September 30, 2011

Base Fare (one way)	Senior Discounted Fare (one way)
$22.40	$3.40
$29.50	$4.45
$36.55	$5.50
$42.65	$6.40
$46.60	$7.00
$52.80	$7.95
$60.85	$9.15

Source: *Community Transit* website (www.ctdelco.org)

6.4   Medical Assistance Transportation Program (MATP)

The third paratransit program is MATP. This program offers low-income individuals with severe medical conditions free transportation or reimbursement of travel expenses to approved medical facilities and treatments. The Pennsylvania Department of Public Welfare funds MATP, and county governments administer it. In order to qualify for the program, each applicant must complete an MATP application, which also needs to be certified by a physician. Special ACCESS cards are issued to qualified participants.

All scheduling and reservation services for the MATP are managed directly by *Community Transit.* MATP passengers typically must request paratransit services at least one day ahead of time. Emergency requests are not included under the MATP. *Community Transit* typically uses its own vans and minibuses to transport passengers, though in some cases subcontracted private ambulance or taxi services may be utilized. Participants are eligible to travel across County borders in order to receive medical treatment, provided that the facility has been approved for their specific needs. Thus, trips into Philadelphia, Chester, and Montgomery Counties are relatively commonplace under MATP.

6.5   *Community Transit of Delaware County* Trips by Purpose

CTDC provides a wide variety of trips for the Shared-Ride and MATP Programs, as **Figure 17** demonstrates. Unfortunately, as SEPTA manages all of the scheduling for the CCT program, the trip purpose data for this program is not recorded by *Community Transit.* Nonetheless, it is clear that the vast majority of these trips are taken in order to perform essential, and often daily, functions which are crucial to the quality of life of these paratransit participants. Trips predominantly are health related with medical trips, trips to dialysis centers, and hospital visits amounting to 27%, 16%, and 13% of total trips, respectively. Together health-related trips amount to over half of all those operated by *Community Transit*, which is not altogether unexpected given the nature of the paratransit programs – both are designed to help senior citizens and those with severe medical conditions.

In addition, *Community Transit* trips made to perform vital social and educational functions are certainly noteworthy. Senior centers make up 13% of all destinations for paratransit riders in Delaware County, which is again not entirely surprising given its objective of providing mobility for senior citizens. Similarly, day care at 8% and therapy at 7% are among the chief trip purposes.

Figure 17. – The Percentage of Trips on *Community Transit of Delaware County* by Purpose for the Shared-Ride and MATP Programs, FY 2011
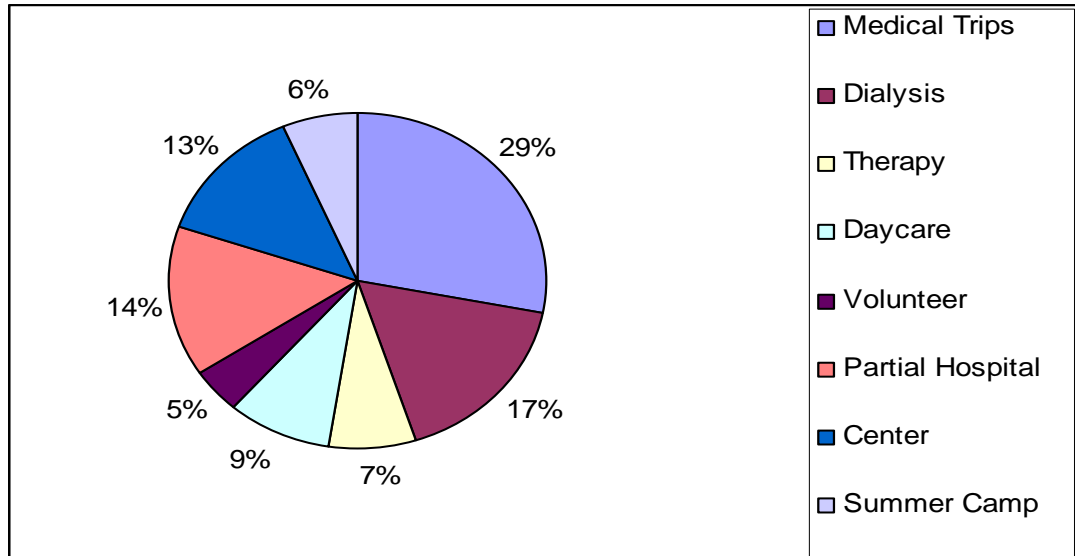
Source: Courtesy of *Community Transit of Delaware County, Inc.*

6.6   Ridership on *Community Transit of Delaware County*

Ridership on *Community Transit* was examined over the last seven fiscal years, revealing some interesting trends on the three paratransit programs (see **Figure 18**).

With regard to total annual ridership in general, trip levels increased by over 75,000, from 351,947 in 2005 to 428,298 during the 2011 fiscal year. The general ridership trends on *Community Transit* tend to follow those for SEPTA's fixed-route systems in Delaware County and the wider region during the same period.

Figure 18. – Ridership on Delaware County *Community Transit* Paratransit Services by Total and Individual Program, FY 2005 – 2011
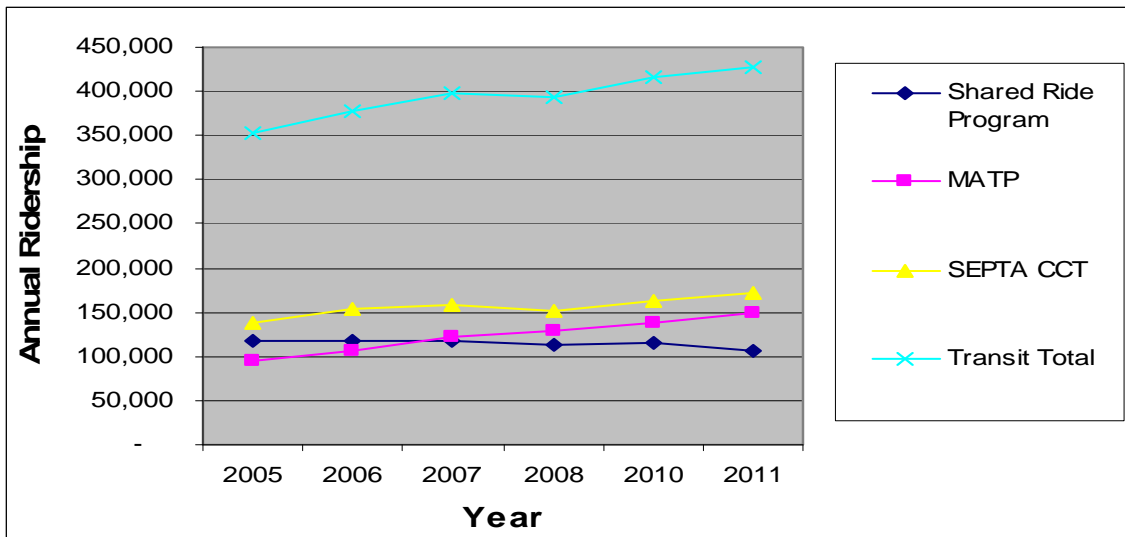
Source: Courtesy of *Community Transit of Delaware County, Inc*., Ridership Data FY 2005 – 2011

Perhaps the greatest fluctuations have been in the Shared-Ride and MATP Programs. Since 2005, the Senior Shared Ride Program has lost over 10,000 rides, while MATP has increased their rides by over 54,000. In 2005, the Senior Shared Ride Program had the second highest of the three paratransit programs, with MATP third. These programs have essentially replaced each other in ridership numbers and in position. While MATP's numbers are increasing significantly, so have SEPTA CCT's numbers which are increasing almost 10,000 riders a year (see **Table 12**).

6.7   Conclusions – Paratransit is a Key Service in Delaware County

Paratransit programs provide essential services for Delaware County residents (see **Tables 11 and 12**), yet despite their importance, they are often overlooked when evaluating transit provisions in favor of the better-known fixed-route systems. It could be argued that the true value of the paratransit programs is even greater as they aid the most vulnerable in society – the elderly, the disabled, and those on low incomes with medical conditions.

As our population continues to age and individuals are not as readily able to use fixed-route public transit, the paratransit services should be seeing continued growth in the coming years. A reasonable funding stream to meet these needs should be examined in the Pennsylvania and Federal legislatures to not exclude these services.

Table 11. – The Numbers and Percentage of Trips on *Community Transit of Delaware County* by Purpose for FY 2011

Trip Purpose	Number of Trips	Percentage of Total Trips
Medical Trips	68,709	26.59%
Dialysis	41,334	16.00%
Therapy	18,283	7.08%
Work	521	0.20%
Daycare	21,431	8.29%
Volunteer	11,040	4.27%
Recreation	567	0.22%
Shopping	5,433	2.10%
Preschool	402	0.16%
Partial Hospital	35,214	13.63%
Afterschool Program	6	0.00%
Center	32,000	12.38%
Education	468	0.18%
Other	1,843	0.71%
Visiting	1,862	0.72%
Hairdresser	1,372	0.53%
Summer Camp	15,836	6.13%
Church/Temple	162	0.06%
School	4	0.00%
Shuttle	4	0.00%
Work Shop	433	0.17%
Urgent Care	203	0.08%
RX Pharmacy	298	0.12%
992-Surrey	13	0.01%
M Maintenance	576	0.22%
Radiation	321	0.12%
Multimodal	7	0.00%
Psych Rehab Services	37	0.01%
TOTAL	258,379	

Source: Courtesy of *Community Transit of Delaware County, Inc.*

Table 12. – Ridership on Delaware County *Community Transit* Paratransit Services by Total and Individual Program, FY 2005 – 2011

CTDC Ridership	2005	2006	2007	2008	2010	2011
Shared Ride	117,717	117,311	117,045	112,387	116,115	107,381
MATP	95,213	107,228	121,892	129,682	137,013	149,623
CCT	139,017	153,759	157,934	151,315	162,504	171,294
Total	351,947	378,298	396,871	393,384	415,632	428,298

Source: Courtesy of *Community Transit of Delaware County, Inc.*, Ridership Data FY 2005 - 2011

7 Job Access/Reverse Commute (JARC)

7.1 JARC Passenger Subsidies on Delaware County Bus Routes

Due to the lack of dedicated operating funding for SEPTA, it has had to rely on supplemental funding provided by the Federal Transit Administration (FTA). The Job Access/Reverse Commute (JARC) program was established to address the unique transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment. Many new entry-level jobs are located in suburban areas, and low-income individuals have difficulty accessing these jobs from their inner city, urban, or rural neighborhoods. In addition, many entry level jobs require working late at night or on weekends when conventional transit services are either reduced or non-existent. Finally, a lot of employment related trips are complex and involve multiple destinations including reaching child care facilities or other services.[7]

Under JARC, SEPTA applies for supplemental operating funds, allocating a large portion of its funds to transit service in Delaware County. Certain routes are eligible for JARC funds if they are considered to assist low-income workers reach areas of employment, particularly if a route involves a non-traditional reverse commute pattern from urban areas into the suburbs.

Eight out of the twenty-one Delaware County bus routes received JARC funds in FY 2011 and 2012. These included routes 37, 105, 108, 109, 110, 111, 113 and 115. For nearly all of these routes, the JARC funding was used by SEPTA to provide additional service to passengers at times when regular transit operations would not be justified, such as the late evening, early morning, and on Sundays. Many low-income workers and Temporary Assistance for Needy Families (TANF) recipients in Delaware County rely on transit in order to work night shifts and on weekends.

7.2 Delaware County JARC Bus Routes

A breakdown of each route funded and its purpose are included below, as of FY2012:

Route 37 – *Chester Transportation Center to Broad-Snyder*
The addition of funds was added to provide half-hour service replacing the existing hourly service. The thirty-minute service operates from 11:00 a.m. until 4:00 p.m. and again from 7:00 p.m. until midnight on weekdays.

Route 105 – *Paoli to 69th Street Transportation Center*
SEPTA receives funding to operate the route 105 on Sundays. The route operates from 69th Street Terminal to Paoli Transportation Center along the U.S. Route 30 (Lancaster Avenue) corridor. By increasing service along a dense retail and restaurant corridor, SEPTA opens the door for additional job access.

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[7] Federal Transit Administration – Grants & Financing:
http://www.fta.dot.gov/funding/grants/grants_financing_3550.html

Route 108 – *UPS and Airport Business Center to 69th Street Transportation Center*
"Owl" service was added allowing for operation twenty-four hours a day, seven days a week. Route 108 serves the Philadelphia International Airport and the UPS facility, two large employers that need employees at all hours of the day.

Route 109 – *Chester Transportation Center to 69th Street Transportation Center*
 "Owl" service was added allowing for operation twenty-four hours a day, seven days a week. The route serves southern and eastern portions of the County – providing access to jobs and easy connections to other SEPTA bus and rail services.

Route 110 – *Penn State and Springfield Mall to 69th Street Transportation Center*
Funding provides for the addition of weekend service to Fair Acres Geriatric Center. This County-owned facility is a large employment generator within the County and has a large number of shift workers. This route also serves Springfield Mall and downtown Media, which also generate a large number of retail and service employees and serves the County of Delaware courthouse. The route 110 shares weekend service with the route 111 to Fair Acres Geriatric Center. The addition of weekend service was made possible when the former Delaware County TMA run Quicksilver II shuttle was discontinued.

Route 111 – *Chadds Ford and Penn State to 69th Street Transportation Center*
The route 111 receives two JARC funds for two different portions of its operation. One part allows for earlier express service on weekdays and Saturday. The early morning service will be applicable for employees who begin work early in the morning or for those late shift/overnight workers wishing to return home from work. Westbound service begins at 5:00 a.m. weekdays and 5:30 a.m. on Saturday. The second portion receives funds to provide weekend service to Fair Acres Geriatric Center, similar to the route 110; however, the route 111 operates in a different area of the County. The route 111 shares weekend service with the route 110 to Fair Acres Geriatric Center. The addition of weekend service was made possible when the former Delaware County TMA run Quicksilver II shuttle was discontinued.

Route 113 – *Tri State Mall and Darby Transportation Center to 69th Street Transportation Center*
Funding provides for the addition of one early morning trip between Darby Transportation Center and 69th Street Terminal. The addition of this trip was made possible by the discontinuation of the Delaware County TMA operated Quicksilver II shuttle.

Route 115- *Delaware County Community College to Airport*
Formerly part of Route 305, route 115 provides direct access between Darby Transportation Center and Philadelphia International Airport and other airport employers. Funding is used for service between 5:00 a.m. and 1:00 a.m., seven days a week.

In addition to bus routes receiving funding from JARC, SEPTA also applies for money to fund specific trips on regional rail. As the entire regional rail route would not necessarily be eligible for funding, SEPTA applies funds to operate certain round trips

that meet the criteria for JARC funding. The two regional rail routes funded are the Airport (a.m. service) and the Paoli/Thorndale (a.m. service). The Airport Line funding adds two early morning trains to the airport to accommodate employee shifts starting prior to 5:00 and 5:30 a.m. The Paoli/Thorndale line funds are used to add one outbound trip originating at 5:15 a.m. from North Philadelphia on the Paoli line. This trip accommodates employees who are early starters or shift workers. Because the line only has four stations in Delaware County, this improvement may not be as beneficial to County residents as it is to individuals employed in the County.

7.3   Conclusions – A Necessary Funding Source

While JARC funds provide supplements to SEPTA for its operating budget, it is by no means a guaranteed funding source going forward. SEPTA competes for an ever decreasing pot of money each fiscal year. The potential to lose portions or all of the JARC funded routes exists if a dedicated funding stream for public transit is not identified in the near future.

By subsidizing these routes with JARC funds, SEPTA helps reduce both variable and fully allocated expenses and boosts the cost recovery rate beyond what would normally be expected. Undoubtedly, the extended hours of operation of subsidized routes bears positively on ridership.

8 Major Transit Capital Projects in Delaware County: 2011

8.1 Background and Overview of Projects

Described in this chapter are major capital projects that were completed or significantly progressed by the end of fiscal year 2011. Information includes the project name, a brief description of work, estimated cost, and the municipalities affected.

8.2 Darby Transportation Center

Estimated Cost: $2,700,110

Municipality: Darby Borough

Project Description:
This project, a joint effort among SEPTA, Delaware County, Darby Borough, and the William Penn School District, created a new bus terminal for routes serving Darby Borough. The project includes property acquisition, site development, a new passenger platform with shelter, and a new exit driveway to MacDade Boulevard.

The project was completed in the spring of 2011 and a ribbon cutting was held in June 2011.

8.3 Media-Sharon Hill Line Improvements funded by ARRA

Under the ARRA program, SEPTA invested significantly in the aging infrastructure of the Media-Sharon Hill trolley line. With this funding, SEPTA made the following improvements:

A) Painting of Traction Power Structures

Estimated Cost: $595,053

Municipalities: Throughout the entire Media-Sharon Hill Line

Project Description:
This project includes the cleaning and painting of the steel structures supporting overhead traction power.

B) Track Renewal & Brush Cutting

Estimated Cost: $16,770,280

Municipalities: Throughout the entire Media-Sharon Hill Line

Project Description:

This replaced the rail on the trolley lines with Continuous Welded Rail. It also involved brush cutting along the trolley line right-of-way.

C) Grade Crossing Warning Device

Estimated Cost: $10,698,745

Municipalities: Upper Darby Township
                       Clifton Heights Borough

Project Description:
    This will improve the highway grade crossings at nineteen intersections along the line by installing preemptive priority traffic control devices. Grade crossings include: Windermere Avenue, Fairfax Road, Irvington Road, and Shadeland Avenue on the 101/102 Trunk Line; Turner Avenue, Rosemont Avenue, Huey Avenue, Edmonds Avenue, School Lane, and Burmont Road on the 101 Media Line. The improvements also were done at Turner Avenue, Garrett Road, Edmonds Avenue, Burmont Road, Marshall Road, Baltimore Pike, Broadway Avenue, Penn Avenue, and Berkley Avenue on the 102 Sharon Hill line.

D) Fiber Optic Cable for Power Control and Passenger Information

Estimated Cost: $3,784,008

Municipalities: Throughout the entire Media-Sharon Hill Line

Project Description:
    The project will install fiber optic cabling along the routes which will allow for the installation of audio-visual public address devices at passenger stations and improve the power substation control.

E) Warning Device Replacement on Route 101

Estimated Cost: $3,058,297

Municipalities: Upper Darby Township
                       Springfield Township
                       Nether Providence Township

Project Description:
    The project upgrades the highway grade crossing warning devices at ten grade crossings on the Media trolley line (Beatty Road, Pine Ridge Road, Scenic Road, Thomson Avenue, Woodland Avenue, Leamy Avenue, Saxer Avenue, Springfield Road, Wildell Avenue, and Paper Mill Road). This will provide better coordination between vehicles and the trolleys moving through the intersections. The ten grade crossings will

install preemptive priority traffic controls while removing crossing gates – with the exception to the crossing gate remaining at Thomson Avenue.

F) Sectionalization of Media-Sharon Hill Line

Estimated Cost: $3,934,979

Municipalities: Throughout the entire Media-Sharon Hill Line

Project Description:
        Project will sectionalize overhead traction power. It allows for SEPTA to go to a single track when needed for maintenance without shutting the entire line down.

8.4   Elwyn to Wawa Rail Service Restoration

Estimated Cost: $84,000,000

Municipalities: Middletown Township
                       Chester Heights Borough

Project Description:
        This project provides for restoration of passenger rail service to Wawa, Delaware County. It will extend the Media/Elwyn line approximately three miles from its current terminus in Elwyn to a new facility in Wawa.

        Activities include new track and catenary between Elwyn and Wawa and a new railcar storage/layover yard at SEPTA's Lenni facility. Also included is the installation of new signals, communications, and structures and the construction of a new station building and parking facility at Wawa.

        SEPTA used ARRA funds of $10,475,954 to stabilize the track bed along the future extension of the line. This work was completed in June 2011.

        Design was completed in June 2011. There is a funding shortfall of approximately $63M, forcing SEPTA to delay this project until years FY2016-2023 on the FY2012-2023 capital program.

8.5   Wayne Station Improvements

Estimated Cost: $22,278,909

Municipality: Radnor Township

Project Description:

Activities included roof replacement, masonry repair, structural rehabilitation, and miscellaneous interior upgrades to the station building. ADA improvements were made, including adding high-level platforms on both inbound and outbound sides, new stairs and ramps from the pedestrian tunnel to the platforms, new lighting, handrails, signage, and accessible bathrooms inside the station.

The project was completed and a ribbon cutting was held in June 2010.

8.6   Elwyn Station Parking Expansion

Estimated Cost: $1,379,196

Municipality: Middletown Township

Project Description:
        This project created a 90 space surface parking lot at the Elwyn station (to supplement the existing parking lots), using land formerly owned by Elwyn Institute. The project was completed in June 2010.

9   Issues and Events Affecting Public Transit in 2010 - 2011

9.1   Implications of State Act 44 of 2007

In July 2007, Pennsylvania Governor Edward G. Rendell signed into law Act 44 of 2007. This Act established requirements for the Pennsylvania Turnpike Commission (PTC) to make annual payments to the Pennsylvania Department of Transportation (PennDOT) through the year 2057 for transportation projects in the state. An important aspect of Act 44 was the PTC's application to the Federal Highway Administration (FHWA) to implement tolls along Pennsylvania's Interstate 80. Money from the I-80 tolls would have raised enough to fund the annual payments owed to PennDOT as well as the reconstruction of Interstate 80. In addition to the tolling of I-80, Act 44 also allowed PTC to raise tolls on the turnpike 25% in 2009, and then project increases of 3% every year thereafter.

The Act was designed to provide dedicated funding to public transit, highways, and bridges throughout the state. At the time the Act was passed, Pennsylvania was facing a $1.7 billion deficit for funding transit and highway work.

In April of 2010, the FHWA ultimately denied PTC's application to toll I-80 for legal reasons concerning the planned payments from PTC to PennDOT. Despite the denial of the tolling application, PTC has continuously made its required payments to PennDOT since the passage of Act 44 in 2007. As of April 2011, PTC has paid nearly $3 billion dollars to PennDot. Without the funding from I-80 tolling, PTC's payments to PennDOT will be capped annually at $450 million dollars, (a significant departure from the $850 million expected in fiscal year 2008 and $900 million dollar payment expected during fiscal year 2009).

With the rejection of the I-80 tolling application and reduced payments to PennDOT for state transportation projects, SEPTA funding (and that for other public transit providers in the Commonwealth) will suffer immensely. Without the full funding from Act 44, SEPTA will need to cut its annual capital budget by $110 million dollars (which is equal to 25% of the total budget) each year beginning in FY2011. The $110 million dollar capital budget reduction will greatly affect SEPTA's 12-year capital program. Projects across the Philadelphia region, including Delaware County have been affected. Within Delaware County, the 69th Street parking garage, as well as the extension of the Media/Elwyn line to Wawa Station, have been put on hold given the decrease in funding.

9.2   Stimulus/American Recovery and Reinvestment Act Funds

On February 17th, 2009, President Barack Obama signed the American Recovery and Reinvestment Act of 2009 (ARRA) with the goal to stimulate the economy, create jobs, and rebuild America's aging infrastructure. Of the total stimulus package, $8.4

billion was set aside for new capital investment in public transportation throughout the country, with approximately $191 million allocated to SEPTA.

SEPTA stimulus projects were chosen on a "ready-to-go" status and an ability to meet the goals of the ARRA funding, including but not limited to improving infrastructure, enhancing customer service, and reducing long-term costs.[8] The funding for ARRA projects was distributed across various transit modes within the five counties served by SEPTA.

Several projects within Delaware County were chosen to receive ARRA stimulus funding, generating significant improvements to Route 101 and 102 trolley lines, enhancing multiple Regional Rail stations and transportation centers, and laying the foundation for the expansion of transit service in the county. The following Delaware County projects were completed during 2010 and 2011 using ARRA stimulus dollars:

- 69th Street Terminal Restroom Renovations ($689,031)
- Darby Transit Center Renovation and Site Expansion ($2,131,888)
- Elwyn Station Additional Parking, Media/Elwyn Line ($1,690,322)
- Elwyn to Wawa Line Track Bed Stabilization ($7,404,100)
- Media Sharon Hill Trolley Line Improvements:
    o Media Line Warning Device Replacement Route 101 ($3,086,614)
    o Media-Sharon Hill Line Continuous Welded Rail, Routes 101/102 ($11,734,793)
    o Media-Sharon Hill Line Fiber Optic Cable for Power Control and Passenger Information System, Routes 101/102 ($4,890,190)
    o Media-Sharon Hill Line Painting of Steel Catenary Structures, Routes 101/102 ($922,660)
    o Media-Sharon Hill Line, Traction Power Sectionalization, Routes 101/102 ($4,931,072)
    o Media Sharon Hill Line, Trunk Line Grade Crossings, Routes 101/102 ($11,269,596)
- Norristown High Speed Line Power Control Fiber Optics, Route 100 ($4,197,600)
- Paoli/Thorndale Line, Signage Upgrades for 17 stations including Radnor and St. David's in Delaware County ($2,548,930 – total costs)
- Station Building Renovations at Four Regional Rail stations, including Clifton-Aldan and Morton along the Media/Elwyn Line ($4,936,938)

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[8] SEPTA, "Fiscal Year 2010 Capital Budget and Fiscal Years 2010-2021 Capital Program". (2010), page 13.

9.3   SEPTA New Payment Technology (NPT)

SEPTA has sought to implement a new system for payment on the bus, light rail, and regional rail systems as well as improvements to the SEPTA Customized Community Transportation (CCT) operation and SEPTA's parking operations to make it easier for consumers to use the SEPTA system. The NPT system will be similar to the E-Z Pass system that is currently used on the highway system – using contactless cards and allowing for debits from the card to pay transit and regional rail fares. The NPT is also looking into allowing payments with bank credit and debit cards and possible use for cell phone technology payment.

With the funding reduction SEPTA faced beginning in FY2011; the NPT system was put on hold until a funding mechanism was secured to pay for the project. With little funding available, SEPTA secured a loan for $35,000,000 to progress the NPT system. This loan is scheduled to be paid back during FY2013-2015. The project also received funding in later years of the FY2012-2023 Capital Program. The total cost for this project is estimated to be $175,000,000.

SEPTA awarded a contract to a consulting firm to implement the NPT in November 2011.