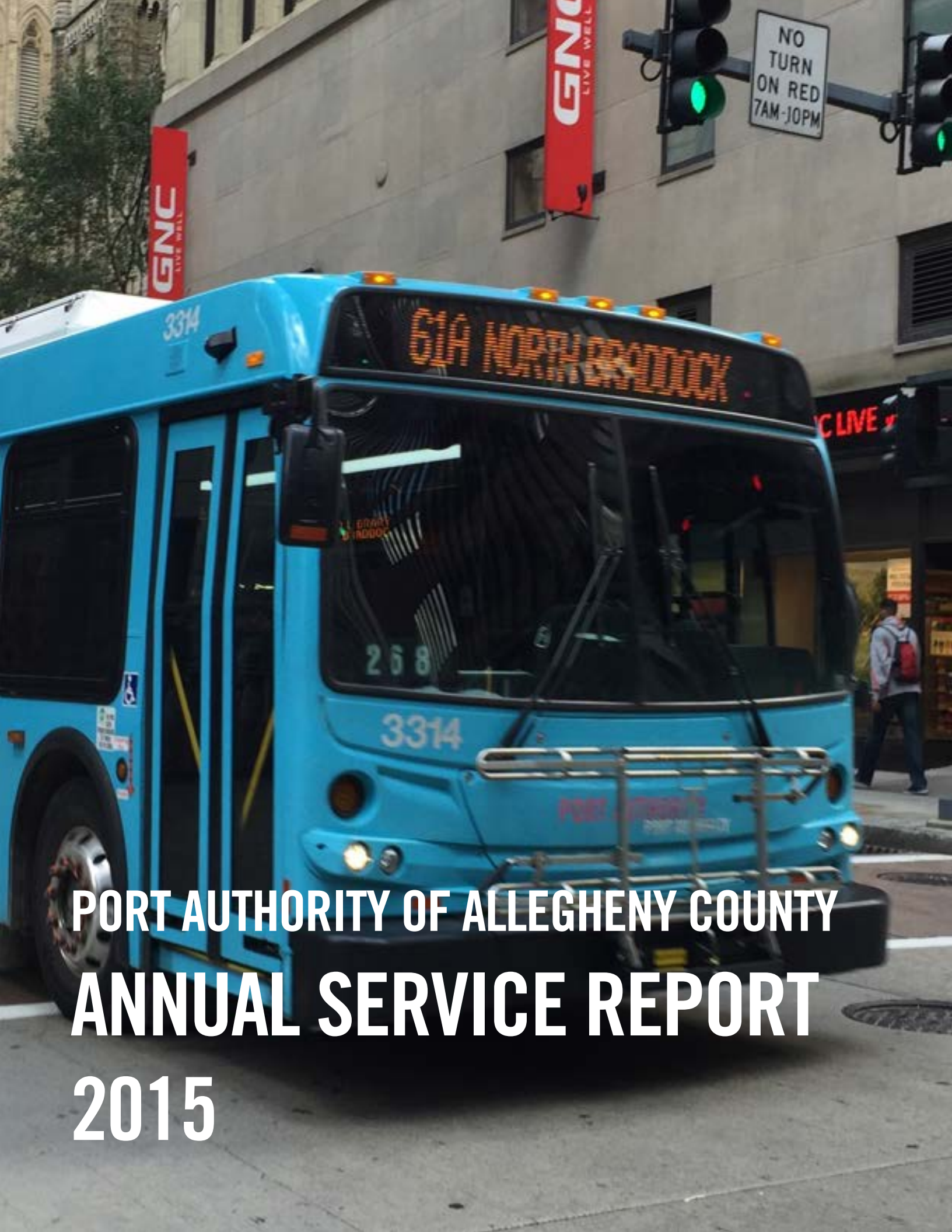


PORT AUTHORITY OF ALLEGHENY COUNTY

ANNUAL SERVICE REPORT 2015

CONTENTS

TRANSIT SYSTEM

SYSTEM OVERVIEW	3
HISTORICAL SERVICE	5
SYSTEM EFFICIENCY	6
SYSTEM EFFECTIVENESS	8
SYSTEM EQUITY	12

ROUTE SPECIFICS

ADHERANCE TO SERVICE GUIDELINES	16
UPDATES ON RECENT SERVICE CHANGES	21
SERVICE REQUESTS FOR FY2017	22
PLANNED CHANGES FOR FY2017	26

EXECUTIVE SUMMARY

The 2015 calendar year was a successful and transitional year for transit at the Port Authority of Allegheny County. With continued stable state funding secured in late 2013 through Act 89, the Authority was able to adjust its existing service to improve on-time performance, reduce overcrowding, roll out bus system-wide real time information (TrueTime[sm]), and develop new and transparent processes to ensure continual efforts to improve service and financial sustainability.

The Port Authority of Allegheny County strives to provide a range of safe, quality transit services in a manner that satisfies three primary goals; efficiency, effectiveness and equity. Efficiency is achieved through providing the highest amount of value to its riders by using resources optimally to achieve the greatest output (passenger trips) with the least inputs (time, vehicles, staff, etc.). Effectiveness is achieved through maximizing the population's access to and options for transit in order to grow ridership and promote long term viability within the region by reducing congestion, encouraging transit-oriented development, and curbing environmental impacts. Finally, equity is achieved through improving mobility for those with the greatest need by providing targeted and representative service to specific populations within Allegheny County, such as those without access to vehicles or with limited incomes. Balancing these three, often competing goals requires Port Authority to review its current and proposed services to continually improve and evolve.

Calendar year 2015 was the first year that Port Authority publicly released its metrics and route performance with respect to its service guidelines. These Transit Service Guidelines, which have existed at Port Authority since 2009 with the Transit Development Plan (and existed prior to that as Service Standards), were updated and approved by the Port Authority Board in June 2015 to reflect realistic metrics for providing efficient, effective and equitable transit service in Allegheny County. As the first year in which every route was examined for adherence to each service metric, there are areas that need to be modified to bring the system in line with its new guidelines. For the most part however, the existing transit system adheres well to the guidelines set forth in 2015, and few major changes are needed as a result of thorough and ongoing internal service evaluation efforts.

In 2015 Port Authority carried out four major service extensions in response to community need prior to the start of the new service evaluation process. These extensions returned bus service to four communities that lost service during service reductions in 2007 and 2011. Bus Route 20 was extended to serve the residents of Groveton in western Allegheny County, Bus Route 44 was extended to serve the residents of Baldwin Borough south of the City of Pittsburgh, Bus Route 56 was extended in McKeesport to serve the students and employees of Penn State's Greater Allegheny Campus, and Bus Route 91 was extended to connect employees to jobs in RIDC Industrial Park in O'Hara Township.

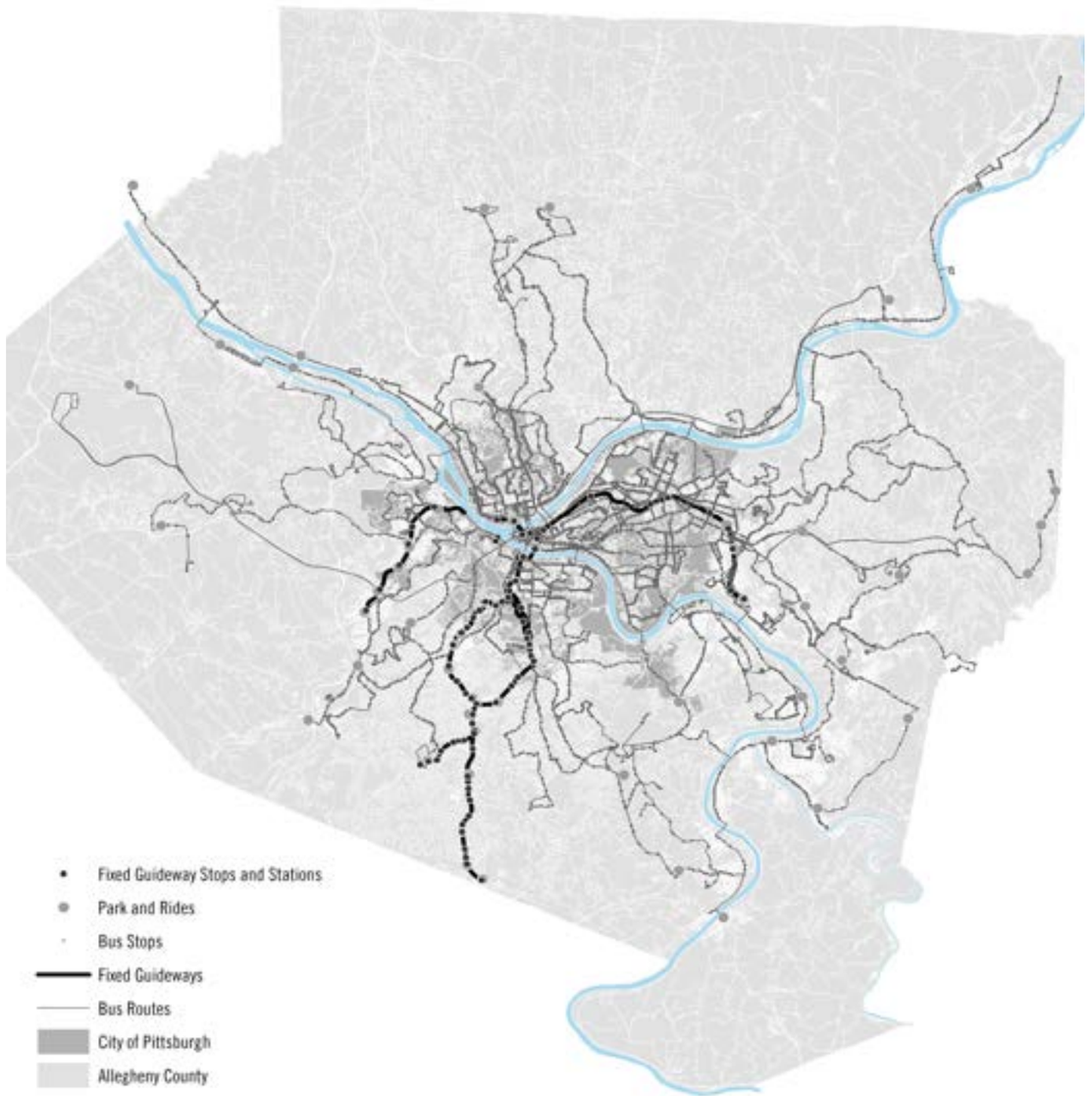
The end of 2015 brought about new evaluation procedures for providing transparent decision-making to Port Authority's customers. Port Authority now collects, on an ongoing basis, any request for a major change to its transit system. All requests are put through an evaluation process which includes multiple measures for determining the efficiency, effectiveness, and equity of each proposal. All proposals, regardless of who made them, are then ranked against one another to determine which proposals best balance these three goals. Since 2015 was the first year for this process, more than 1,600 requests for service were evaluated. Ranked proposals have been identified in this document and, if budget is available after bringing current service into compliance with new guidelines, may be carried out in the upcoming service year in order of their rank.

The Port Authority hopes that this new era of transparency and data-driven decision making assures riders that the organization is constantly striving to better itself and evolve with new technologies and data while maintaining its emphasis on local knowledge and a deep understanding of the communities that it serves.

SYSTEM OVERVIEW

Overview of Port Authority's Transit Services

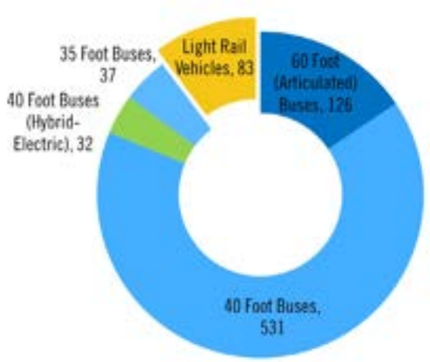
The Port Authority of Allegheny County provides public transportation services within Allegheny County, including the City of Pittsburgh, in southwest Pennsylvania. These services include 98 bus routes (three of which are rapid fixed guideways, or busways), three light rail lines, and 2 inclined planes, one of which is operated by an outside entity. Port Authority also sponsors the ACCESS paratransit program which provides door-to-door, advance reservation, shared ride service which is contracted out through a third party. These services are all supported by more than 7,000 transit stops and stations, 700 shelters, 54 Park and Ride lots, 105 locations where customers can purchase fare products, and various operational centers (one light rail center, four bus garages, one bus heavy maintenance facility, and one general maintenance facility).



SYSTEM OVERVIEW

Fleet

Port Authority received 90 new buses in September of 2015 and was able to retire buses which had reached the end of their useful life. The current fleet size is 726 buses and 83 light rail vehicles. The breakdown of the number of vehicles by type can be seen in the chart below.



Transit Stops and Stations

As of the end of 2015, Port Authority has 7,021 transit stations and stops. 6,913 of these are for buses, 104 are for light rail, and four are for the inclines (of which only two are operated by Port Authority).

Shelters

Port Authority has 103 shelters at fixed guideway (light rail and busway) stations and 176 shelters at bus stops around the County. Additionally, 416 bus stops have shelters owned by another entity (these are mostly advertising shelters). Overall, 695, or ten percent, of Port Authority's transit stops/stations are sheltered. These shelters cover stops used by approximately 65,000 of Port Authority's 210,000 average daily trips, representing about 31 percent of the ridership of the system.

Park and Rides

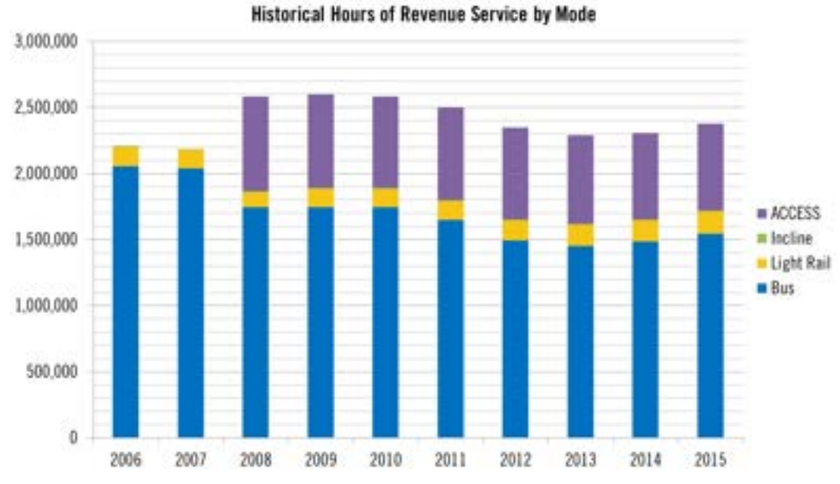
There are 54 parking lots for transit users in Port Authority's Park and Ride program with 14,059 total parking spaces. 23 of these (with 7,035 spaces) are owned by the Port Authority, and the rest (31 lots with 7,024 spaces) are either leased by the Port Authority or are owned by another entity but advertised in Port Authority's system due to their proximity to stops or stations. These parking spaces were filled with approximately 10,078 vehicles (72 percent full), on average in 2015, providing access to at least (assuming 100% single-occupant vehicles) 20,156 trips per day, or about ten percent of Port Authority's riders.

*Note: In the following sections, unless otherwise noted system level data is measured by fiscal year [July 1 to June 30] and route level data is measured by calendar year [January 1 to December 31]).

HISTORICAL SERVICE

Service Levels

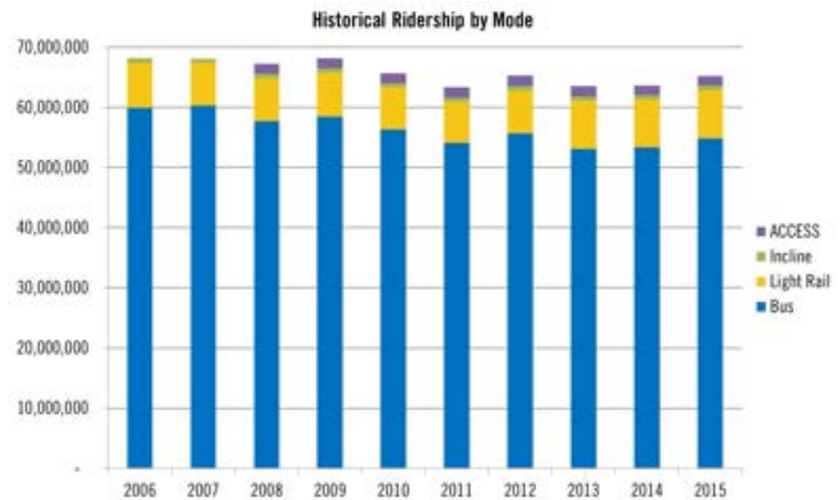
Port Authority has undergone three major service reductions in the last decade; a 15 percent service cut in 2007, service changes in 2009 with the Transit Development Plan (TDP) and another service cut in 2011, reducing service by another 13 percent. Altogether, fixed route service decreased by 27 percent between 2006 and 2013. ACCESS paratransit service was added to Port Authority's range of services provided in 2008, increasing overall service levels. Since 2013, the point at which service provided was the lowest, service has increased by four percent to its current level of 2,376,374 revenue vehicle hours per fiscal year.



Ridership

Over the last ten years, Port Authority has seen a slow ridership decrease, mostly in response to the service cuts between 2007 and 2011. However, the ridership loss between 2006 and 2011 (where ridership was at its lowest) was much less significant at only ten percent than the overall reduction in fixed route service of 27 percent. Ridership has been slowly increasing since 2013.

In 2015, ridership was up 2.4 percent, or about 1.5 million rides, over 2014 ridership. Most (93 percent) of this increase was due to an increase in bus ridership, though rail ridership and incline ridership saw modest increases as well, accounting for seven percent and five percent of the ridership growth, respectively. ACCESS ridership accounted for five percent less ridership overall in 2015.



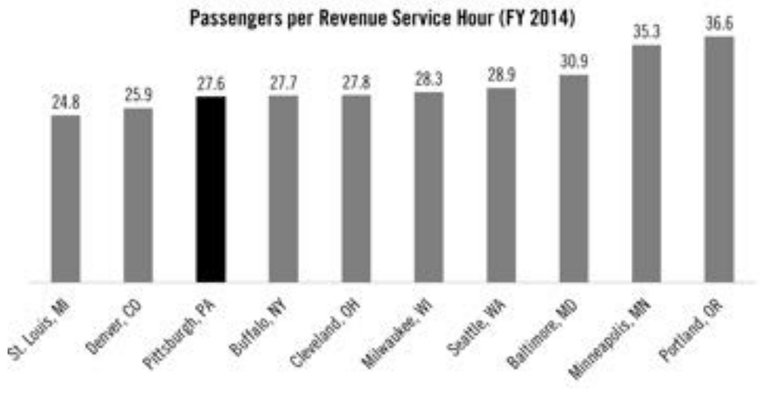
SYSTEM EFFICIENCY

System efficiency at Port Authority means providing the highest amount of value to customers by using resources optimally. This is achieved by maximizing the number of passengers trips provided with available resources such as time, vehicles, and staff. Two metrics are used to evaluate Port Authority's efficiency: passengers per revenue vehicle hour and cost per passenger served.

Passengers per Revenue Vehicle Hour

Operator and vehicle hours are an important indicator of the efficiency of the transit system. In 2015, Port Authority carried, on average, 27.6 passengers per hour of revenue service provided. This is consistent with the 2014 value of 27.6. Though more passengers were carried in 2015, recent changes have been focused on increasing the service area of the system through route extensions rather than on increasing ridership on existing service. With new service guidelines in place, Port Authority aims to better balance the needs of efficiency with effectiveness and equity to ensure that services continue to be provided in an efficient manner where possible.

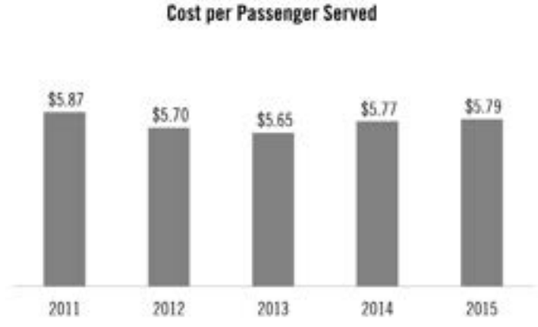
Port Authority ranks on the lower end in efficiency of passengers carried per revenue vehicle hour compared to its peers. The latest data available is Fiscal Year 2014 data, shown in the chart below alongside several of Port Authority's peer (similarly sized) transit agencies and their performance. Port Authority has geographical challenges that do not enable it to be as efficient with moving passengers as some of its peers with more grid-like street layouts.



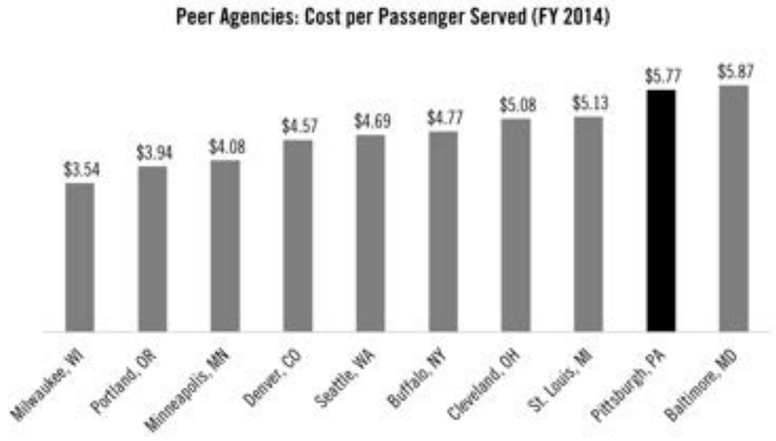
Cost per Passenger Served

In addition to passengers served per revenue vehicle hour, cost per passenger served is another important measure of efficiency. In addition to vehicle in-service time, it also shows a measure of how well resources are used (how efficiently vehicle schedules are optimized, and how well administrative resources, such as materials, utilities, and other capital expenses, are used).

In 2015, it cost Port Authority an average of $5.79 to transport each passenger it carried. With an average fare revenue of $1.46 (25% of the cost) per passenger trip provided, this leaves a $4.33 gap per ride that must be filled through Federal, State, and local funding sources. Cost per passenger served had been decreasing over the last few years after Port Authority had service cuts that resulted in overcrowding on buses. As Port Authority returned service to lower-ridership areas and addressed overcrowding, efficiency has dropped three percent from 2014 to its current value of $5.79 for 2015. Better balancing effectiveness and equity alongside efficiency will ensure that this number remains at a financially sustainable level.



Port Authority's cost per passenger served is relatively high in comparison with its peers. These higher costs can be partially attributed to an older system with greater legacy costs and the region's unique topography, which affects both in-service efficiency as well as out of service efficiency and vehicle maintenance costs.



SYSTEM EFFECTIVENESS

Walkable Service Area

Port Authority has seen a substantial decrease over the last decade in the total area in which its services are provided within Allegheny County (defined as the 'walkshed', this includes anywhere within a five minute walk of a bus stop or a ten minute walk of a light rail, incline, or busway station). Between a 15 percent service cut in 2007, the Transit Development Plan system redesign in 2009, and another round of service cuts in 2011, the Authority lost over 27 percent of its total hours of transit service provided. During this same period, it also lost a significant portion of its walkable service area. Even though this service area has been reduced, Port Authority still serves a substantial part of Allegheny County, covering within walking distance almost half of all residents and over half of all jobs in the County in 2015.

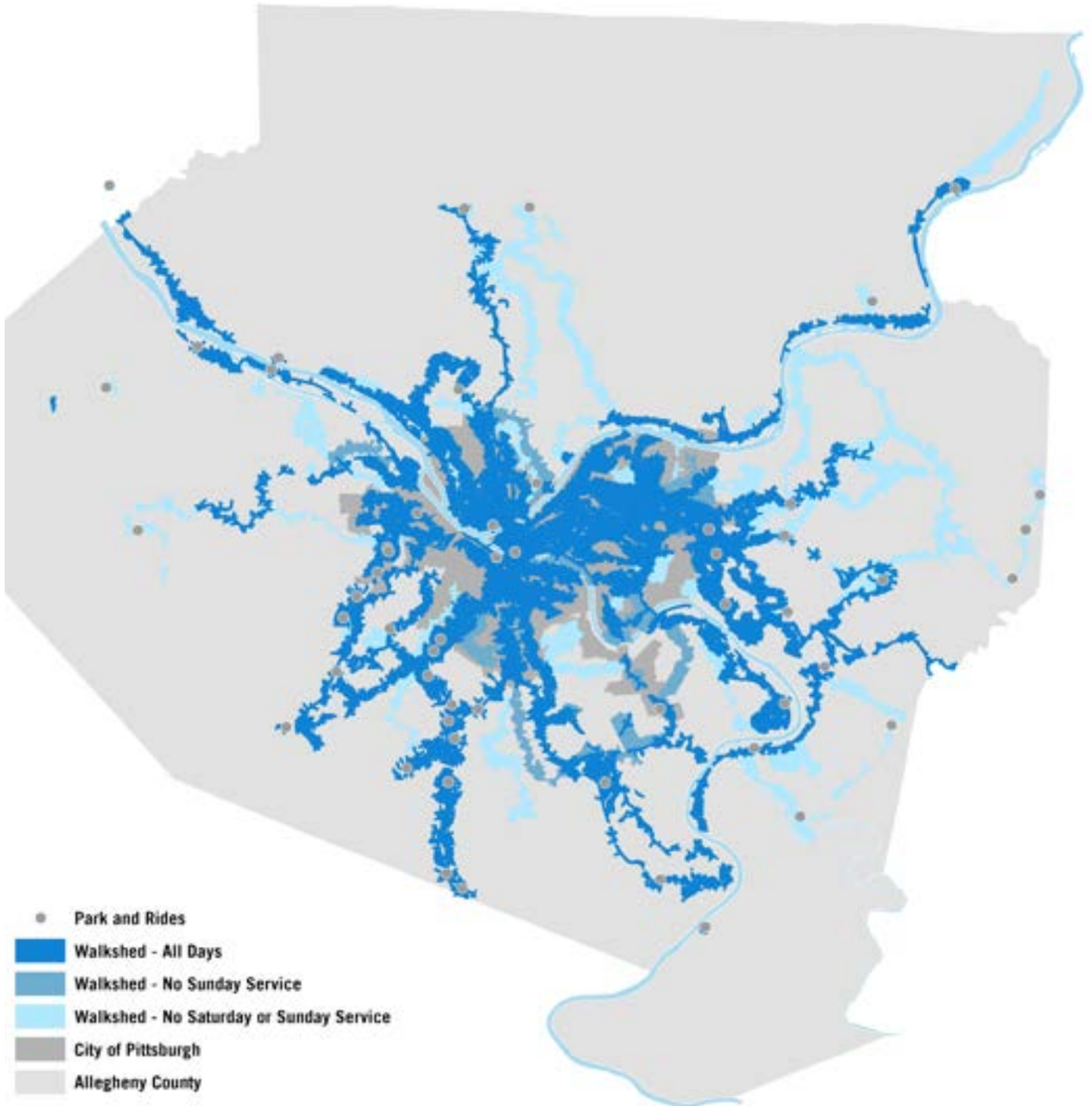
Service Area by Day of Week

The area that Port Authority serves, however, is further limited by day of the week – an area may have commuter bus service during the week, but have no service in the middle of the day, late at night, or on the weekends. Therefore, to paint a better picture of the walkable service area, the following map provides three different walksheds based on everyday service, six day service (no Sundays), and weekday only service (no weekends).

While the weekday service area provides access to 45 percent of the population of Allegheny County and 58 percent of its jobs, six day service is only provided to 37 percent of the population and 53 percent of the jobs, and all day service is only provided to 35 percent of the population and 52 percent of the jobs in Allegheny County.

Port Authority's current service area, or walkshed, for weekday only service, for areas with no Sunday service, and for areas with all day service are in the following chart, showing the percentage of overall area, population, and jobs which are covered within the walkable transit area. A map of these walksheds can be seen on the following page.

Service Days	Service Area		Population		Jobs	
	Total (miles^2)	Percent of Total	Total	Percent of Total	Total	Percent of Total
Weekday Only - No Saturday or Sunday Service	121.0	16.2%	546,078	44.6%	404,821	57.8%
No Sunday Service	83.2	11.2%	457,746	37.4%	370,754	52.9%
All Days	81.7	11.0%	428,046	35.0%	362,524	51.8%
All of Allegheny County	745.0	-	1,223,348	-	700,358	-



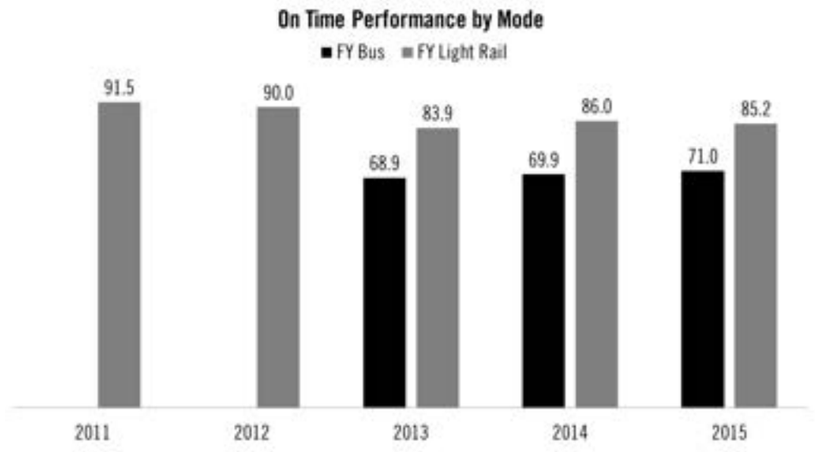
SYSTEM EFFECTIVENESS

System On-Time Performance

On-time performance is measured monthly by Port Authority, and bus and light rail schedules are updated quarterly to adjust for changes in running times between two schedule points on a given route (within budgetary constraints). The incline is not included in on-time performance, as trips do not run on a schedule.

To be considered 'on-time', a bus or light rail vehicle must arrive at its timepoint (key stops along its route) between 1 minute ahead of schedule and six minutes behind schedule. A bus arriving at a stop at 6:58am when the schedule says 7:00am would be considered early, and a conversely, a bus arriving at 7:07am when the schedule says 7:00am would be considered late. On-time performance is collected at every timepoint on every trip on every bus route through automatic vehicle location (AVL) systems linked to GPS onboard buses. Light rail on-time performance is measured by manual checks, as AVL data is not yet available on these vehicles.

Due to the lack of AVL systems onboard light rail vehicles, sample sizes for light rail on-time performance are much smaller, and therefore the variation in the five year on-time performance is quite large, ranging from 83.9 percent to 91.5 percent on-time, with no discernible trend. Bus on-time performance, however, includes almost all timepoints on all trips since AVL data became available in 2013, and therefore the sample is quite large and much more accurate. Since fiscal year 2013, average calendar year on-time performance has increased from 68.9 percent on-time to 71.0 percent on-time, an improvement of 2.1 percent in just two years. These changes are largely due to greater ability to analyze appropriate travel times for buses by time of day using historical AVL data and adjusting schedules to match actual conditions in the field.



System Stop Spacing

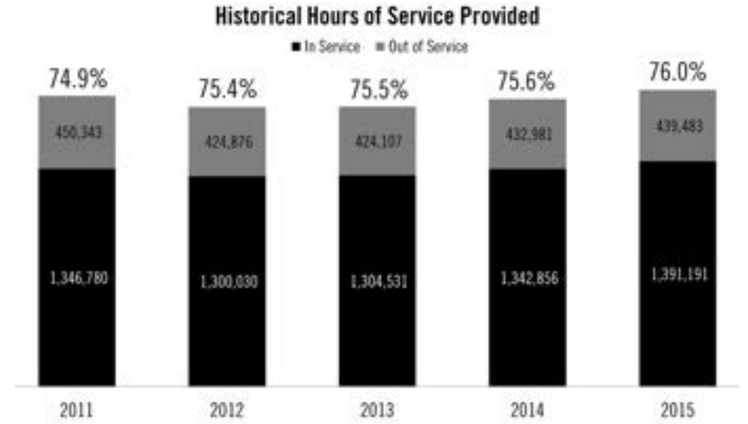
Over the past two decades, many transit systems across the U.S. have undergone a stop consolidation program after research on optimal spacing between stops became clear in the 1990s. Many systems, including Port Authority, formerly operated under a historic system of electric streetcars which stopped at most intersections, especially in dense, urban areas. With knowledge of how far passengers are willing to walk to a transit stop based on research – including research conducted in the Pittsburgh region with a focus on how slope affects peoples' willingness to walk – agencies improved efficiency, travel time and passenger comfort by increasing the space between bus stops so as to optimize walkable access without excess stopping.

Port Authority has had minimum stop spacing guidelines since the TDP in 2009, but has not yet undertaken a system-wide project to adjust the spacing between its stops. In advance of the broad rollout of a new wayfinding program to better provide signage and stop amenities throughout the system, the Authority will begin to address this issue in the coming years.

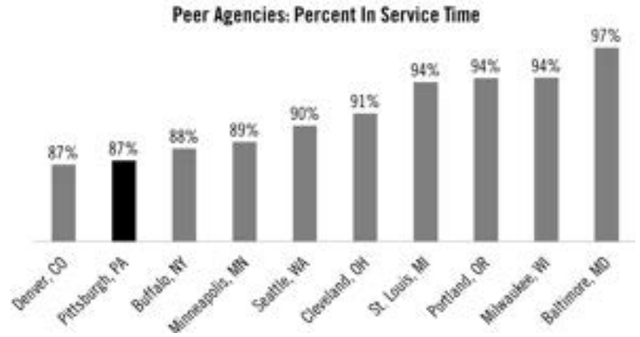
In 2015, many of Port Authority's transit routes did not meet average stop spacing guidelines over the course of their route, and almost all routes had at least some stops that did not meet current minimum spacing guidelines. For fiscal year 2017, Port Authority plans to begin roll-out of this program by determining the best way to implement route-wide stop changes and educate the public about such changes. It will then begin a pilot project on a few select routes which have the poorest stop spacing and highest ridership so as to maximize impact.

Percent of Time Spent In Revenue Service

Total revenue service provided in 2015 was 1,391,191 hours. This is up about 48,000 annual hours, or 3.6 percent, over the 1,342,856 hours of revenue service provided in 2014. Total hours of (revenue and non-revenue) service were about 3.1 percent higher in 2015 - the other 0.5 percent increase in revenue service was due to increased scheduling efficiencies. The chart below includes the overal percent of time spent in revenue service above each bar. It has increased from 74.9% to 76.0% in the last five years, again due to more optimal scheduling of vehicles.



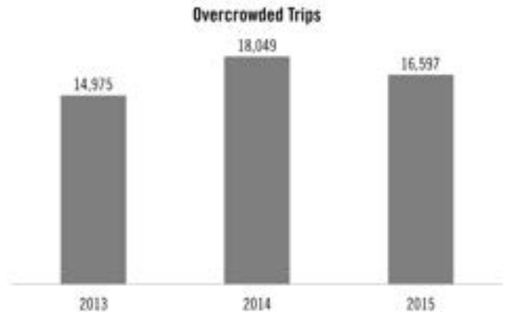
Port Authority continues to seek more efficient routing and grouping of vehicle trips in its schedules and attempts to maximize the amount of time that buses are in-service (as opposed to driving to/from garages to start or end their trips). This allows for the Authority to provide the most transit service possible within its available resources. Schedulers have optimized the system steadily over the past five years, leading to an increase in the percentage of time that buses are in-service. From 74.9 percent in 2011 to 76.0 percent in 2015, the result is a 1.5 percentage point increase in productive time. (Note: the percentage in-service time in the peer graph does not match that in the historical graph because the Federal Transportation Administration includes layover time in its definition of in-service time.)



Passenger Loads: Crowding

Port Authority considers a bus trip to be "overcrowded" when the number of people on board the vehicle (load) at any point along the trip is equal to or greater than 140 percent of the number of seats on the vehicle. For example, a standard 40 foot bus may have 40 seats. With 40 people on the bus, the bus is considered 100 percent full. With 56 people on the bus, or 16 people standing and all seats occupied, the bus is considered to be overcrowded (40 x 140% = 56).

In 2015, 16,597 (0.87 percent of trips) hit this overcrowded metric, down eight percent from 18,049 (0.95 percent of trips) in 2014. This was in direct response to efforts made in mid-2014 to curb overcrowding on the 61A, 61B, 61C, and 61D routes. Overcrowding continues to be a problem on select routes, and Port Authority continues to prioritize reducing overcrowding to manageable levels wherever possible given labor force and vehicle time. Over 75 percent of this crowding occurs during rush hour, or 'peak' periods, when resources are already being utilized near maximum capacity. (Data is not available prior to 2013).



SYSTEM EQUITY

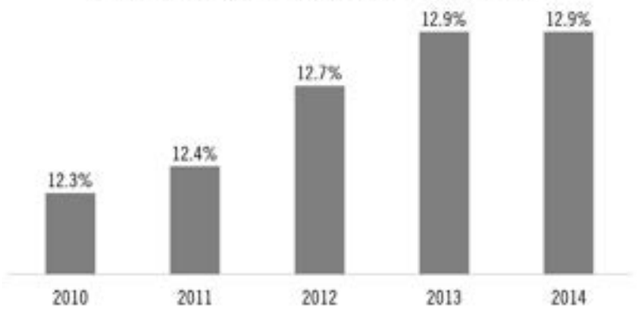
Persons with higher mobility needs are critical to the sustainability of Port Authority; they are the riders who ride most often because they do not have as many options for getting from place to place by other means. Port Authority conducted a customer survey in 2015 to get a better glimpse of who these riders are. Almost 2,000 surveys were conducted via the web and phone. Data below include information regarding both findings from the survey as well as the population of Allegheny County as a whole to give a broader view of riders and trends. Port Authority considers the following groups when looking at higher mobility need populations: Low income persons, minorities, senior citizens, persons with disabilities, and people without access to vehicles.

Low Income Persons

Port Authority follows the Federal Transportation Administration's guidance on defining a low income person as anyone living in a household making less than the federal poverty level (for 2014, this was $24,250 for a family of four or $15,930 for a family of two) per year on the US Census. As seen in the top chart below, the percentage of low income persons in Allegheny County has been slowly but steadily increasing over the last five years.

Riders surveyed had a broad range of income levels which is indicative of a robust transit network (weaker transit networks often have fewer moderate and high income riders). Though household size was not asked, it can be safely assumed that most individuals reporting an income below $24,999 (see yellow bars on bottom chart below) on the survey would fall below the Federal Poverty Line. Using this assumption, approximately 25 percent of Port Authority's riders are considered 'Low Income'; double the percentage of the County as a whole.

Historical Low Income Population: Allegheny County



Survey Respondents' Annual Household Income

Minority Races

Port Authority follows the Federal Transportation Administration's guidance on defining a minority as a person reporting being a race other than white, non-Hispanic on the US Census. As can be seen in the top chart below, the percentage of minorities in Allegheny County has been slowly but steadily increasing over the last five years, and is up 0.3 percent in 2015 from 2014 levels.

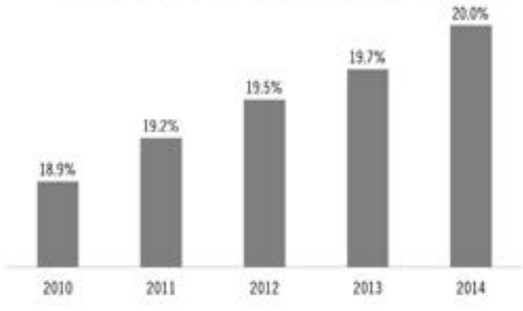
Percentage of minorities in Port Authority's survey closely match that of the County as a whole at about 19 percent of riders. This indicates that Port Authority has a ridership which racially reflects the County as a whole.

Senior Citizens

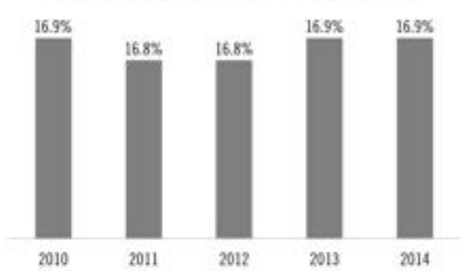
Port Authority defines senior citizens as persons reporting being over age 65 on the US Census. As seen in the top chart below, the percentage of senior citizens in Allegheny County has remained relatively constant over the last five years at about 17 percent.

Only two percent of survey respondents reported being over 65, much less than expected given the population of seniors in Allegheny County. However, taking an online or text-based survey probably skewed the sample of people taking the survey in the direction of younger riders, so this sample is likely not representative of Port Authority's senior citizen riders.

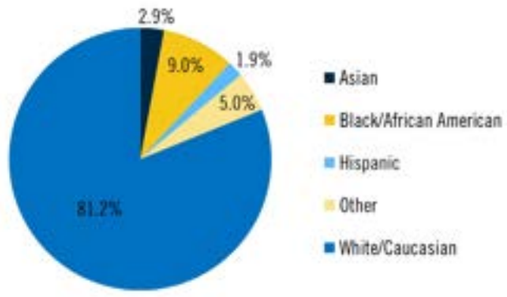
Historical Population of Minority Races: Allegheny County



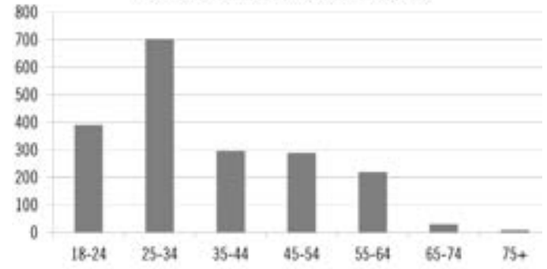
Percent Population Over Age 65: Allegheny County



Survey Respondents' Race/Ethnicity



Number of Survey Respondents by Age



SYSTEM EQUITY

Persons with Disabilities

Port Authority defines persons with disabilities as persons reporting having one or more disabilities on the US Census. For 2014, 13.0 percent of the population reported as having one or more disabilities. Historical data does not exist for this attribute. The top chart below shows a breakdown of the types of disabilities that residents of Allegheny County have.

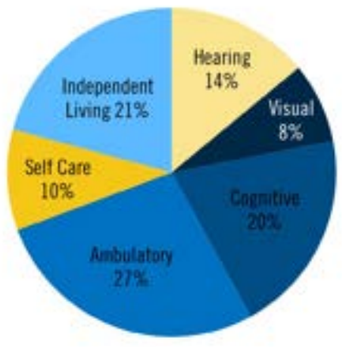
A slightly higher proportion of Port Authority's riders reported having a disability (17 percent) than the County as a whole (13 percent). The bottom chart below shows a breakdown of the types of disabilities that riders reported having. As would be expected, the number of riders surveyed with a visual disability is much higher than the proportion for the County as a whole; these individuals likely drive personal automomobiles less than the population as a whole. Cognitive disabilities were a lower proportion of riders surveyed than the County as a whole, but this may be due to survey methods.

Persons without Access to a Vehicle

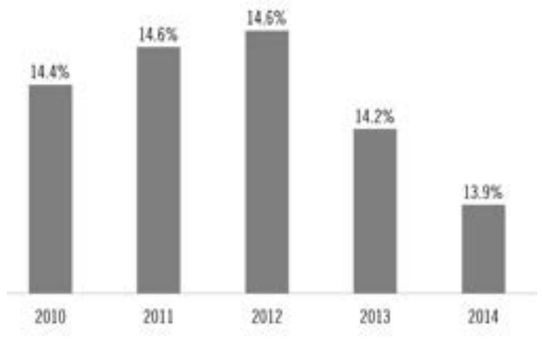
Port Authority defines persons without vehicles as persons reporting not having access to a vehicle in their household on the US Census. As seen in the top chart below, the percentage of persons in Allegheny County without an available vehicle has fluctuated over time, but has decreased over the last two years to its 2014 level of 13.9 percent of the population.

As would be expected, the percentage of Port Authority riders surveyed without access to a vehicle was much higher (29 percent) than the County as a whole (14 percent). As these individuals cannot drive due to lack of access, public transportation is a viable option.

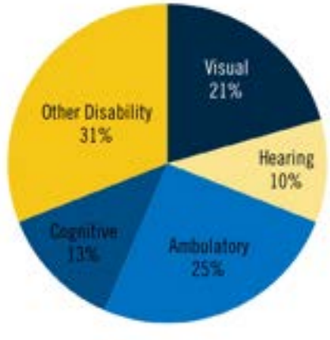
Types of Disabilities: Allegheny County



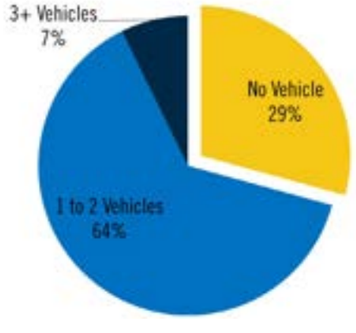
Percent Households with No Vehicle Available: Allegheny County



Types of Disabilities: Survey Respondents



Survey Respondents' Available Vehicles

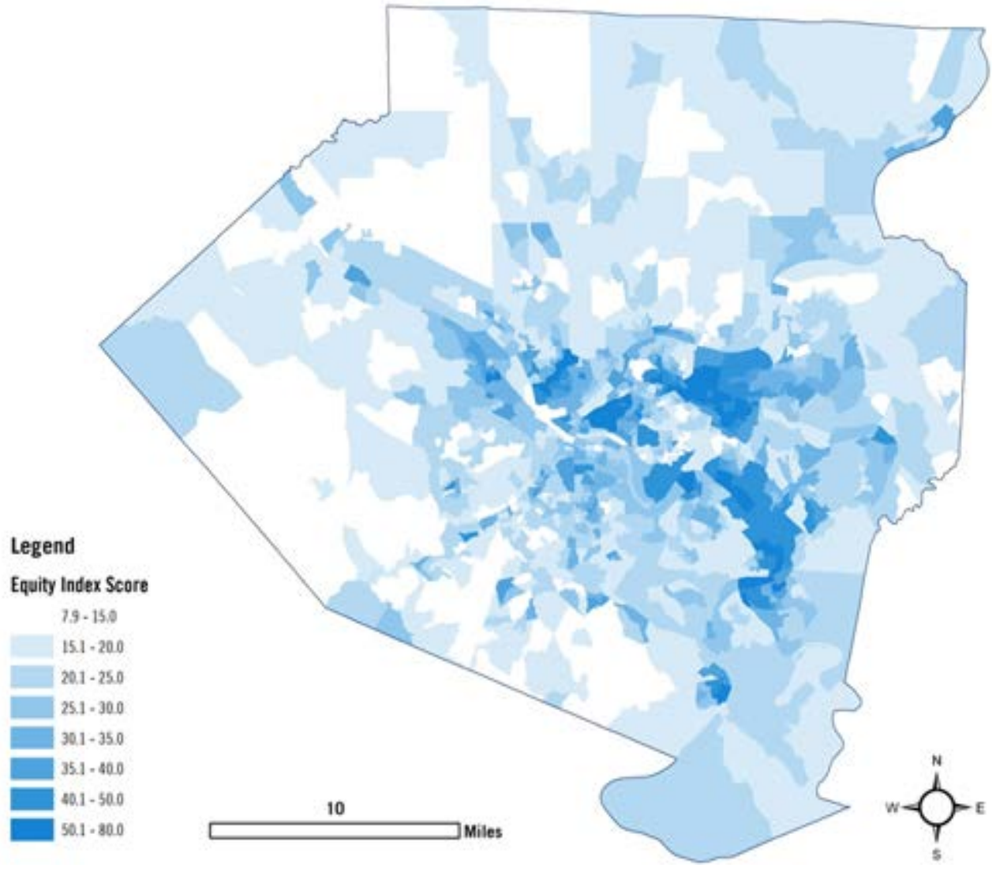


Overall Equity Index Performance

Port Authority uses the previously stated five demographic indicators (low income persons, minorities, senior citizens, persons with disabilities, and persons without access to vehicles) in combination to develop an overall location-based equity index within Allegheny County. The percentage of the population in each Census block group falling into these five categories is averaged (all five indicators are weighed equally) together to create one final value of 'equity' for each location. Higher equity areas have higher percentages of the population falling into these five demographic categories, and are higher priority areas for Port Authority to serve.

High Equity Areas without Transit

Of the approximately 1,100 Census blocks in Allegheny County, Port Authority has service inside of or in close proximity (five minute walk) to 982 of them. Some Census blocks are quite large, so this does not necessarily guarantee that having service in a Census block means that all residents in that block can walk to the transit service. However, being inside of or within close proximity to 89 percent of Census blocks indicates broad coverage of populated areas within Allegheny County. Of the 300 blocks with highest equity scores, all but five have transit service in or next to (within five minute walk of the center of) them.



ADHERENCE TO SERVICE GUIDELINES

Routes not Meeting Current Service Guidelines

The following sections describe current areas where existing service is not meeting the service guidelines established and approved by the Board in 2015. In addition to descriptions, each problem area has a solution presented which outlines the proposed plan for addressing each issue in FY2017.

These proposals are not set in stone – the scheduling of vehicles is conducted in a complex optimization software program, and therefore the cost of proposed changes cannot be fully determined until the entire system is optimized with this software. As such, the Service Planning and Evaluation Department will attempt to address all of the areas where current guidelines are not being met, but due to budgetary, vehicle, and/or labor force constraints, no guarantees can be made.

Summary of Service Guidelines

The following chart gives a summary of the route-specific service guidelines set forth in the 2015 Transit Service Guidelines document.

Mode	Route Type	Service Day	In-Service Percent	Riders / In-Service Hour	On-Time Performance	Average Stop Spacing (feet)
Bus	Rapid	Weekday	75%	40	70%	2,500
		Saturday		40		
		Sunday		30		
	Express	Weekday	50%	30	70%	1,200
		Saturday		20		
		Sunday		20		
	Key Corridor	Weekday	75%	30	70%	900
		Saturday		20		
		Sunday		20		
	Local	Weekday	70%	18	70%	900
		Saturday		15		
		Sunday		15		
Rail	Rapid	Weekday	75%	80	80%	2,500
		Saturday		50		
		Sunday		45		

In-Service Time

In-service time refers to the percentage of time that vehicles are in-service (as opposed to out of service). Out-of-service time includes vehicles heading to and from the bus garages/rail center, as well as time spent moving from the end of one route to the end of another to begin a next trip on a different route. Port Authority uses a scheduling software called Hastus© to optimize the scheduling of vehicle and bus operator hours.

Route Type	Route(s)	Guideline	Current Level	Planned Changes
Rapid	BLLB, BLSV, P1, P2, RED	85%	varies	The guideline set forth in the Service Guidelines was an error – it should be 75%, not 85% (85% is infeasible).
	G2	(75% - see above)	74%	Attempt to re-group weekend trips for improved efficiency to and from the garage. *Note: This will not occur until after West Carson Street reopens so as to only change schedules once.
Express	G3	50%	44%	Major service changes proposed. See page 26.
Local	18	70%	53%	Major service changes proposed. See page 26.
	39	70%	60%	Attempt to re-group weekday trips for improved efficiency to and from the garage.
	40	70%	67%	Attempt to re-group weekday trips for improved efficiency to and from the garage.
	44	70%	67%	Attempt to re-group weekday trips for improved efficiency to and from the garage.
	54	70%	63%	Attempt to re-group weekday trips for improved efficiency to and from the garage.

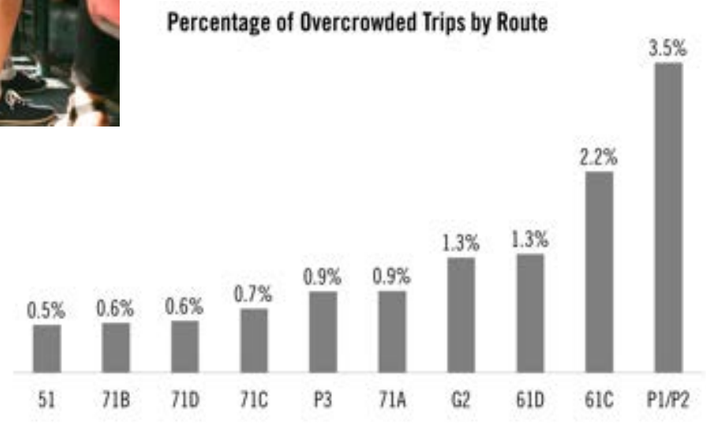
Passengers per Revenue Vehicle Hour

Passengers per service hour refers to the basic efficiency of the bus or light rail route when it is running. The number of people the vehicle carries per hour of service that it provides is a standard measure of general efficiency in the realm of public transportation.

Day of Week	Route Type	Route	Guideline (riders / hour of service)	Current Level (riders / hour of service)	Planned Changes
Weekday	Express	28X	30	26	Re-classify as 'local' route, as it's an all-day route and therefore not does meet the 'express' classification for high load commute trips.
		05	30	25	Marketing campaign/mailers to the area to improve local awareness of express route for commuters.
		P13	30	28	Re-route via Route 28 instead of the East Busway into downtown so that the route is truly an 'express' over the local Route 2 bus.
		Y45	30	28	Spread trips out in the evening to reduce total number of trips by 1 (low ridership).
	Local	71	18	14	Evaluating midday service options to improve efficiency by optimizing the headway between trips.
Saturday	Local	40	15	14	Reschedule Saturday trips for improved efficiency and better headways.
Sunday	Local	18	15	13	Major service changes proposed. See page 26.
		40	15	11	Reschedule Sunday trips for improved efficiency and better headways.
		55	15	13	Route 55 was only put in-service in September of 2013, and therefore has not had a full 12 months of running after the 24 month grace period. Waiting one more year to determine if action is needed to reduce service span.
		58	15	13	Greenfield Bridge closure has altered the 58 so that it now runs through Squirrel Hill, which actually might improve its efficiency. There are no plans to change this route until the Bridge is reconstructed in 2017.

Passenger Loads: Crowding

Based on the service guideline set that a bus route cannot be more than 125 percent/140 percent (off-peak and peak, respectively) full, on average, all routes currently are in adherence with the guidelines for overcrowding. However, Port Authority recognizes that overcrowding on certain routes, while not extreme enough to violate the guidelines, is nevertheless problematic. The following chart shows overcrowded trips as a percentage of overall trips for routes with frequent overcrowding.



ADHERENCE TO SERVICE GUIDELINES

On-Time Performance

Thirty-seven of Port Authority's 102 routes did not meet On-time Performance goals for 2015. Of these 37 routes, 25 had schedule adjustments at some point in 2015 to improve on-time performance as budget allowed. Schedules that were adjusted are highlighted in the table below. The Authority will continue to adjust schedules in FY2017 to continue improving on-time performance.

Route	On Time Performance
89	69.3%
2	68.9%
88	68.6%
60	68.5%
56	68.4%
G31	68.0%
O5	67.7%
P12	67.6%
P67	67.6%
93	67.3%
21	67.2%
Y47	66.8%

Route	On Time Performance
75	66.4%
71B	66.4%
61B	66.3%
51	66.2%
P78	65.5%
61A	65.4%
P10	65.4%
38	65.4%
52L	65.3%
71D	65.1%
82	65.1%
28X	65.0%

Route	On Time Performance
61C	64.8%
71A	64.7%
77	64.3%
53L	63.7%
83	63.5%
67	63.2%
29	62.8%
81	62.5%
74	61.9%
36	61.8%
69	61.3%
86	60.4%
71C	58.1%

Stop Spacing

As of the November 2015 schedule changes, 63 routes did not meet stop spacing standards. The Port Authority acknowledges that this is not something that can be changed in one year, but will work towards in the coming year by developing methods for a pilot project and determining the most effective way to communicate changes to the public in fiscal year 2017. Routes with the highest ridership and most closely spaced stops will be prioritized in order to maximize impact.

Frequency of Service

The following routes did not meet the Authority's Frequency of Service guidelines set in 2015, and will be adjusted permitting available resources in fiscal year 2017.

Day of Week	Route Type	Route	Guideline (frequency in minutes)	Current Level (frequency in minutes)	Planned Changes
Saturday	Rapid	G2	30	45	Attempt to re-group weekend trips and schedule every 30 minutes if budget allows. *Note: This will not occur until after West Carson Street reopens so as to only change schedules once.
Sunday	Rapid	G2	30	45	
	Local	21	90	120	Attempt to re-group Sunday trips and schedule every 90 minutes if budget allows. *Note: This will not occur until after West Carson Street reopens so as to only change schedules once.
		41	90	120	Attempt to re-group Sunday trips and schedule every 90 minutes if budget allows.

Summary of Route Performance

A summary of existing transit route metrics can be seen below, including mode, route type, days which service is provided, ridership by day of week, percentage of time route is in-service, riders per hour of service provided, cost per rider served, on-time performance, and average stop spacing along the route. Highlighted metrics fall below the service guidelines for that route.

Route	Mode	Route Type	Days of Service	Weekday Riders	Saturday Riders	Sunday Riders	In-Service Percent	Riders / In-Service Hour	Cost / Rider Served	On-Time Performance	Average Stop Spacing (feet)
1	Bus	Local	All Days	1,823	1,321	958	73%	28	$7.63	69%	1,019
2	Bus	Local	Weekday Only	1,159			84%	20	$9.50	68%	985
4	Bus	Local	No Sundays	657	257		86%	25	$7.26	#N/A*	585
6	Bus	Local	All Days	1,287	602	485	73%	38	$5.58	79%	572
7	Bus	Local	Weekday Only	113			83%	22	$8.67	#N/A*	797
8	Bus	Key Corridor	All Days	3,493	1,835	1,152	83%	37	$5.06	75%	642
11	Bus	Local	All Days	638	253	107	73%	33	$6.58	#N/A*	583
12	Bus	Local	All Days	1,122	1,295	843	78%	25	$8.13	70%	1,149
13	Bus	Local	All Days	2,205	1,622	859	84%	37	$5.01	78%	672
14	Bus	Local	All Days	1,275	617	360	69%	19	$11.59	73%	1,234
15	Bus	Local	All Days	1,143	848	497	78%	33	$6.04	81%	581
16	Bus	Key Corridor	All Days	4,346	2,630	1,822	76%	50	$4.10	79%	581
17	Bus	Local	Weekday Only	816			96%	27	$6.09	75%	842
18	Bus	Local	All Days	501	121	91	53%	24	$12.40	79%	626
19L	Bus	Express	Weekday Only	704			58%	45	$6.00	74%	1,152
20	Bus	Local	Weekday Only	673			77%	21	$9.91	70%	901
21	Bus	Local	All Days	1,202	572	268	71%	21	$10.72	69%	1,291
22	Bus	Local	No Sundays	673	429		73%	24	$9.03	73%	1,079
24	Bus	Local	All Days	1,414	1,144	938	74%	28	$7.47	68%	1,381
26	Bus	Local	All Days	1,145	645	329	67%	35	$6.69	74%	651
27	Bus	Local	All Days	1,235	664	497	72%	37	$5.87	75%	776
28X	Bus	Express	All Days	1,996	1,699	1,512	80%	25	$7.79	67%	4,490
29	Bus	Local	Weekday Only	874			77%	23	$8.70	62%	1,187
31	Bus	Local	All Days	1,706	846	598	85%	27	$6.77	73%	896
36	Bus	Local	Weekday Only	542			72%	19	$11.70	61%	1,054
38	Bus	Local	All Days	2,375	348	209	78%	28	$7.15	67%	1,167
39	Bus	Local	No Sundays	1,433	267		60%	32	$8.11	79%	811
40	Bus	Local	All Days	529	210	157	67%	19	$12.41	#N/A*	650
41	Bus	Local	All Days	1,747	562	278	85%	26	$7.08	76%	823
43	Bus	Local	All Days	583	340	225	69%	26	$8.71	#N/A*	684
44	Bus	Local	All Days	839	272	228	67%	19	$12.11	#N/A*	715
48	Bus	Local	All Days	3,257	2,132	1,197	72%	55	$4.01	76%	523
51	Bus	Key Corridor	All Days	8,159	5,130	3,271	83%	51	$3.73	67%	787
51L	Bus	Express	Weekday Only	792			52%	64	$4.72	75%	1,101
52L	Bus	Express	Weekday Only	433			65%	32	$7.47	65%	1,028
53/53L	Bus	Local	No Sundays	1,313	374		82%	26	$7.20	65%	1,153
54	Bus	Key Corridor	All Days	3,832	2,354	1,156	63%	35	$7.05	72%	821
55	Bus	Local	All Days	868	674	464	79%	20	$9.89	80%	629
56	Bus	Local	All Days	1,628	731	569	76%	31	$6.72	72%	1,108
57	Bus	Local	All Days	1,316	945	688	73%	34	$6.26	74%	1,005
58	Bus	Local	All Days	991	254	160	82%	23	$8.32	72%	745
59	Bus	Local	All Days	2,311	2,156	1,386	82%	28	$6.84	72%	884
60	Bus	Local	Weekday Only	455			80%	33	$6.02	68%	528
61A	Bus	Key Corridor	All Days	4,553	2,793	2,045	77%	42	$4.87	67%	678
61B	Bus	Key Corridor	All Days	4,188	2,697	1,780	74%	43	$4.92	68%	735
61C	Bus	Key Corridor	All Days	6,201	4,437	3,179	80%	49	$4.02	64%	934
61D	Bus	Key Corridor	All Days	5,251	3,299	2,091	76%	50	$4.16	70%	802

ADHERENCE TO SERVICE GUIDELINES

Route	Mode	Route Type	Days of Service	Weekday Riders	Saturday Riders	Sunday Riders	In-Service Percent	Riders / In-Service Hour	Cost / Rider Served	On-Time Performance	Average Stop Spacing (feet)
64	Bus	Local	All Days	1,652	1,607	867	72%	28	$7.74	72%	740
65	Bus	Express	Weekday Only	417			64%	42	$5.77	71%	712
67	Bus	Local	All Days	2,044	872	432	83%	30	$6.37	66%	940
68	Bus	Local	All Days	348	431	196	77%	26	$7.79	82%	791
69	Bus	Local	All Days	1,593	384	256	82%	28	$6.89	65%	978
71	Bus	Local	Weekday Only	96			79%	14	$13.82	81%	482
71A	Bus	Key Corridor	All Days	5,902	2,695	1,846	82%	59	$3.25	66%	587
71B	Bus	Key Corridor	All Days	4,742	1,987	1,192	81%	51	$3.78	68%	616
71C	Bus	Key Corridor	All Days	5,697	2,866	1,910	89%	51	$3.47	61%	661
71D	Bus	Key Corridor	All Days	4,402	2,024	1,355	86%	44	$4.15	67%	643
74	Bus	Local	No Sundays	975	551		86%	23	$7.88	64%	541
75	Bus	Local	All Days	2,906	1,861	1,254	83%	37	$5.12	69%	749
77	Bus	Local	All Days	2,424	1,115	710	82%	31	$6.10	66%	816
78/P78	Bus	Local	Weekday Only	1,156			76%	29	$7.18	66%	878
79	Bus	Local	All Days	977	759	416	70%	40	$5.54	84%	548
81	Bus	Local	All Days	1,587	873	530	72%	38	$5.67	62%	628
82	Bus	Key Corridor	All Days	3,877	2,647	2,067	82%	51	$3.76	66%	550
83	Bus	Local	All Days	2,305	1,189	795	77%	49	$4.16	65%	665
86	Bus	Local	All Days	2,919	2,627	1,566	87%	42	$4.31	62%	573
87	Bus	Local	All Days	2,866	840	269	76%	45	$4.62	74%	629
88	Bus	Local	All Days	3,078	1,741	1,303	85%	46	$3.95	70%	592
89	Bus	Local	Weekday Only	411			78%	29	$6.77	69%	564
91	Bus	Key Corridor	All Days	4,159	2,187	1,289	72%	40	$5.46	74%	698
93	Bus	Local	Weekday Only	1,184			74%	24	$8.73	68%	699
BLLB	Rail	Rapid	All Days	6,619	2,025	1,508	76%	71	$5.91	82%	2,427
BLSV	Rail	Rapid	All Days	9,622	1,361	1,118	84%	83	$4.56	82%	2,315
G2	Bus	Rapid	All Days	3,929	975	668	74%	48	$4.42	75%	2,549
G3	Bus	Express	Weekday Only	879			44%	42	$8.30	75%	8,966
G31	Bus	Express	Weekday Only	581			65%	31	$7.91	68%	1,754
MI	Incline	Rapid	All Days	1,481	2,779	1,736	100%	#N/A	$1.14	#N/A*	#N/A
O1	Bus	Express	Weekday Only	1,183			50%	78	$4.04	78%	2,746
O5	Bus	Express	Weekday Only	127			64%	25	$9.73	68%	944
O12	Bus	Express	Weekday Only	1,321			63%	42	$6.01	71%	1,989
P1/P2	Bus	Rapid	All Days	12,850	5,698	3,744	77%	111	$1.83	80%	3,797
P3	Bus	Express	Weekday Only	2,715			61%	52	$4.91	82%	1,195
P7	Bus	Express	Weekday Only	759			74%	30	$7.08	69%	1,564
P10	Bus	Express	Weekday Only	696			57%	32	$8.60	65%	1,524
P12	Bus	Express	Weekday Only	1,202			63%	33	$7.55	67%	2,129
P13	Bus	Express	Weekday Only	261			65%	28	$8.46	72%	1,564
P16	Bus	Express	Weekday Only	961			61%	33	$7.74	77%	1,334
P17	Bus	Express	Weekday Only	461			62%	37	$6.81	75%	694
P67	Bus	Express	Weekday Only	448			54%	42	$6.91	66%	2,398
P68	Bus	Express	Weekday Only	784			77%	36	$5.57	72%	1,133
P69	Bus	Express	Weekday Only	300			61%	35	$7.35	72%	1,224
P71	Bus	Express	Weekday Only	654			73%	44	$4.93	72%	811
P76	Bus	Express	Weekday Only	1,099			57%	42	$6.57	72%	1,835
P78	Bus	Express	Weekday Only	1,016			77%	32	$6.48	66%	1,036
RED	Rail	Rapid	All Days	11,673	7,278	5,364	85%	101	$3.70	82%	1,872
Y1	Bus	Express	Weekday Only	747			52%	42	$7.10	77%	2,494
Y45	Bus	Express	Weekday Only	328			55%	28	$10.30	76%	1,005
Y46	Bus	Local	All Days	1,908	958	768	76%	27	$7.64	69%	1,069
Y47	Bus	Local	No Sundays	1,036	484		81%	28	$7.01	65%	988
Y49	Bus	Local	All Days	1,437	636	372	83%	30	$6.20	71%	678

*These routes did not have AVL data for all of 2015.

UPDATES ON RECENT SERVICE CHANGES

Minor Service Updates

The following table provides a summary of minor service changes made in calendar year 2015 to address various efficiency and effectiveness service metrics. Minor service changes are made four times each year, and use mostly existing resources to adjust services to improve service quality. This includes adding/removing individual trips to better serve riders and increasing/decreasing the scheduled time for buses to get from one point to another to improve on-time performance.

Issue Addressed	Route(s)	Change
On-time Performance	2, 4, 8, 13, 14, 29, 48, 52L, 53L, 56, 57, 59, 61A, 61B, 61C, 61D, 67, 69, 71A, 71B, 71C, 71D, 74, 75, 77, 81, 82, 83, 87, 89, 91, 93, P69, P76, P78	Running times/schedules adjusted to improve on-time performance
Off Service Running Time	2, 51, 54, 56, 61C, G2, P7	Time given to get to /from garage changed to improve efficiency/on-time performance
Coordinating Routes with Service in Common	13, 16	Trips adjusted to have even spacing between route headways.
	26, 27	Trips adjusted to have even spacing between route headways.
Better Connections & Transfers	55, 59	Trips adjusted to coordinate transfers between routes and end of shifts at Walmart North Versailles
Extending Span of Service or Frequency of Service	11	Trips added on weekends to meet upcoming service guidelines
	21	Trips added to coincide with shifts ending at work sites on Neville Island
	31	Trips added to extend span of service on weekdays
	77	One trip added to end of service day on weekdays and Sundays
Reducing Overcrowding	12	Trips added on weekends to reduce overcrowding
	13	Trips added on weekday evenings to reduce overcrowding
	O12	One trip added on weekday evenings to reduce overcrowding
	P1	Four trips added on weekday evenings to reduce overcrowding

Major Service Updates

The following table provides a summary of major service changes made in calendar years 2014 and 2015 to provide new service options for residents in Allegheny County. Over this period, Port Authority extended six bus routes and shortened one bus route, overall providing more service in a broader service area. The table summarizes the ridership and efficiency changes that have resulted in extending these routes.

Year	Route(s)	Major Change	Projection of weekday passenger trips added on new segment only	Actual weekday passenger trips added on new segment only	Efficiency Change for Entire Route
2014	75/71B	71B pulled back from Waterworks to end in Highland Park; 75 extended through Morningside to Waterworks.	No Projection	236	+0.3%
	93	Extension from terminus in Oakland to new terminus in Hazelwood via Greenfield (and Murray Ave in Squirrel Hill)	No Projection	780	-8.6%
2015	20	Extension from terminus in Kennedy Township to new terminus in Groveton.	25	20	-18.0%
	44	Extension on weekdays from terminus in Mount Oliver to new terminus in Baldwin Borough.	240	191	-24.0%
	56	Extension from terminus in McKeesport to new terminus at Penn State Greater Allegheny Campus.	33	84	+3.0%
	91	Extension on select trips from terminus in Waterworks to new terminus in RIDC Industrial Park in O'Hara Township.	62	95	-15.0%

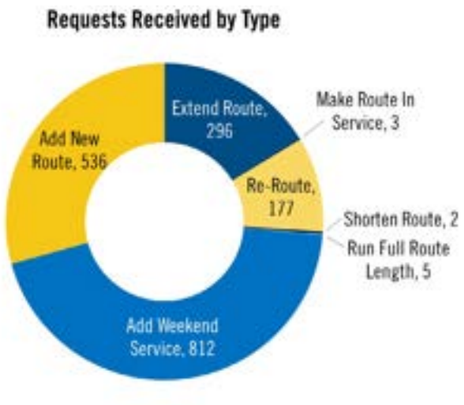
SERVICE REQUESTS FOR FY2017

New Service Request Process

Port Authority's newly adopted Service Guidelines included a new process for the public to submit a request for a major service change. A major service change is defined as any service change which affects more than 30% of a route's miles or hours. Minor service changes are made four times each year and do not require a ranking process, but are put in as resources are available or changes are needed due to road closures or other events.

Port Authority received 1,558 requests for service changes in the fall of 2015. Though the call for ideas was targeted towards major changes to existing service, 92 minor requests (such as adding trips to alleviate overcrowding, adding a new bus stop, or rerouting a bus only a few blocks) were received, and 10 requests were deemed to be infeasible either because they required large upfront capital (such as a new light rail line), were outside of our service area, or violated our service guidelines. The minor requests will be taken into consideration by Department of Service Planning and Evaluation and if they are deamed feasible and beneficial to riders, adjustments may be made throughout the year as schedules and budget allows. No rankings or reporting on minor service changes will be developed.

Of the 1,456 requests that fell appropriately into the "major service change" category, the following is a breakdown of the type of major service change being requested. (Note: Some requests included multiple ideas, which is why the total in the chart below is greater than 1,456.)



Limitations to Adding Service in Fiscal Year 2017

Though many requests were received asking that Port Authority add service in fiscal year 2017, there are limitations to the services Port Authority can provide. Garage space for buses is currently limited, and as such, increasing bus fleet much beyond its current size without building or expanding a bus garage is infeasible. Currently, peak vehicles are being used at or above recommended capacity, meaning that the ability to add service between 7-9am and 3-6pm is very limited. There is potential for adding midday, evening, and weekend service, however. The labor force is also a limitation, though less rigid than that of garage size and number of vehicles, as increasing service means the need for more bus Operators and Mechanics.

Major Service Change Requests: Rankings

Of the 1,456 requests received, 85 unique ideas were represented and ranked. Requests below have been aggregated when similar, and may be slightly different than the original request if two or more very similar requests were made. Efforts were made to also adjust requests if necessary to ensure rankings reflected the most feasible and manageable ways a request could be carried out. Rankings were based on the three overarching goals of efficiency, effectivness, and equity. Each request received a score for these three categories based on a number of metrics. The scores were averaged to create a final score for the request (sorted below in order of Final Score from highest to lowest). A more detailed writeup of the methodology used to develop these rankings, please see the Appendix to Annual Service Report document on Port Authority's website (www.portauthority.org).

GENERAL INFORMATION		EFFICIENCY			EQUITY		EFFECTIVENESS					**FINAL RANKING**	
Generalized Service Request	Estimated Annual Cost (Savings)	Estimated Annual Ridership	Cost (Savings) per Rider Gained	Efficiency Score	Equity Score	Travel Time	Jobs and Residents	Expanded Service Area	Weekly Added Trips	Effectiveness Score	**Final Score**	Recommendation
Reduce 18 to only AM/PM Peak trips, expand 17 to include evening/weekend service	$(43,000)	50,980	$(0.84)	100	63.8	3.5	28.1	2.2	42.9	27.8	63.87	Put in if budget allows
81 goes to South Oakland instead of Southside to cover old 84B service area	$(1,000)	8,930	$(0.11)	100	65.9	8.3	31.6	12.9	1.0	19.5	61.82	Reduces service
Extend 12 to McCandless and Wexford	$193,000	50,516	$3.82	62.2	51.7	100.0	27.2	30.6	30.7	68.3	60.74	Requires peak vehicles
Extend 88 to Wilk Station & end all 71Cs at East Liberty garage	$(475,000)	(13,209)	-$(35.96)	100	78.2	1.0	1.0	1.0	1.0	1.5	59.89	Reduces service
Alternate every other 21 to Moon Township instead of Sewickley	$81,000	30,167	$2.69	74.5	74.2	18.2	11.5	25.1	17.0	26.0	58.24	Reduces service
Alternate every other 39 goes into Mt. Lebanon (McNeilly Rd) instead of Brookline	$12,000	29,453	$0.41	96.6	42.4	1.0	42.2	31.9	9.9	30.8	56.61	Reduces service
Reverse direction G3 to be in service on Campbells Run Rd & Ingram Rd	$75,000	47,481	$1.58	87.0	43.2	37.3	18.1	31.0	5.5	33.3	54.52	Requires peak vehicles
Extend RED to South Hills Village service to all day	$595,000	219,377	$2.71	73.7	52.4	4.9	1.0	56.9	39.2	37.0	54.36	Requires peak LR vehicles
Utilize out of service time on P17 to provide additional revenue service on Route 79	$18,000	2,678	$6.72	38.1	99.9	43.4	1.0	17.1	7.7	25.1	54.35	Put in if budget allows
Create a new route linking Bellevue and McCandless	$940,000	46,033	$20.42	12.5	49.0	100.0	61.3	96.2	17.7	99.8	53.76	Requires peak vehicles
Extend 79 to Lincoln Loop via Mt Carmel Rd on weekdays	$273,000	21,063	$12.96	19.8	88.6	6.9	26.3	63.2	15.4	40.5	49.64	Put in if budget allows
Restore 33F McDonald, Oakdale, to West Busway via Noblestown Rd	$266,000	53,015	$5.02	51.1	49.6	62.8	15.1	40.6	4.4	44.6	48.41	Requires peak vehicles
Reduce P16 by no longer serving Hulton and Milltown Rds	$(174,000)	(1,607)	-$(108)	100	42.4	1.0	1.0	1.0	1.0	1.5	47.95	Reduces service
Extend 8 out Perry Hwy (every 3rd trip)	$940,000	61,940	$15.18	16.9	66.4	14.9	67.8	53.5	20.9	57.0	46.73	Requires peak vehicles
Add Saturday and Sunday service to 89	$213,000	21,921	$9.72	26.4	99.0	9.0	5.5	13.2	10.1	13.7	46.37	Put in if budget allows
Extend G2 to Oakland	$1,537,000	215,985	$7.12	36.0	58.9	4.9	1.0	11.1	100.0	42.4	45.78	Requires peak vehicles
Re-route 61D to Beechwood Blvd via Forward Ave, return to Murray Ave	$318,000	26,051	$12.21	21.0	66.8	6.9	18.1	22.8	88.5	49.4	45.73	Reduces service
Extend 8 out Perry Hwy peak only	$523,000	33,447	$15.64	16.4	65.7	15.3	67.8	53.5	11.0	53.5	45.20	Requires peak vehicles
Add Saturday and Sunday service to 78 and extend to Pittsburgh Mills Mall via Pillow Rd	$596,000	26,240	$22.71	11.3	70.6	28.3	99.9	18.9	1.0	53.7	45.19	Requires peak vehicles
Restore route to Moon Township to serve RMU and Mooncrest	$262,000	54,684	$4.79	53.5	49.4	16.5	29.3	27.1	17.0	32.6	45.17	Requires peak vehicles
Reverse direction G3 to be in service to University Blvd Park and Ride	$10,000	1,785	$5.60	45.7	55.5	75.7	1.0	6.3	8.2	33.1	44.79	Put in if budget allows
Extend 79 to Lincoln Loop via Mt Carmel Rd on weekends	$105,000	11,080	$9.48	27.0	88.6	6.9	10.5	25.3	5.5	17.5	44.38	Put in if budget allows
Restore Middle Road Flyer to Downtown from Shaler Twp/Allison Park	$650,000	58,395	$11.13	23.0	61.9	73.1	11.7	43.1	4.4	47.9	44.29	Requires peak vehicles
Restore 60B Jenny Lind	$767,000	27,846	$27.54	9.3	81.6	21.0	47.5	28.2	18.9	41.9	44.28	Requires peak vehicles
Restore 13K Warrendale Park and Ride to Downtown	$643,000	57,477	$11.19	22.9	60.4	99.7	14.9	17.6	0.7	48.1	43.83	Requires peak vehicles

SERVICE REQUESTS FOR FY2017

GENERAL INFORMATION		EFFICIENCY		EQUITY	EFFECTIVENESS						FINAL RANKING
Generalized Service Request	Estimated Annual Cost (Savings)	Estimated Annual Ridership	Cost (Savings) per Rider Gained	Efficiency Score	Equity Score	Travel Time	Jobs and Residents	Expanded Service Area	Weekly Added Trips	Effectiveness Score	**Final Score**	Recommendation
Restore 75D Monroeville Mall	$1,980,000	93,125	$21.26	12.1	55.3	25.2	27.2	100	20.2	62.6	43.32	Requires peak vehicles
Create a new route linking Robinson and Bellevue via McKees Rocks	$2,141,000	79,707	$26.86	9.5	55.1	40.8	38.4	77.4	22.2	64.8	43.16	Requires peak vehicles
Extend 14 back into Downtown	$900,000	178,724	$5.04	50.9	54.7	4.9	1.0	8.6	50.2	23.4	43.01	Requires peak vehicles
Restore 13J Franklin Park	$335,000	54,315	$6.17	41.5	43.2	55.9	12.7	41.4	4.4	41.4	42.08	Requires peak vehicles
Create a new route from Churchill to Wilkinsburg Station via Elizabeth Ave/Greensburg Pike	$335,000	34,680	$9.66	26.5	59.6	10.8	35.4	57.2	4.4	39.1	41.72	Requires peak vehicles
Restore Route in Port Vue	$1,092,000	16,779	$65.08	3.9	60.8	24.3	56.0	64.9	14.3	57.8	40.86	Requires peak vehicles
Add Saturday and Sunday service to 2	$488,000	20,073	$24.31	10.5	47.1	52.1	56.9	63.0	5.3	64.2	40.61	Put in if budget allows
Extend 88 to Wilkinsburg Station	$2,087,000	3,570	$584.59	2.0	78.2	4.9	1.0	24.9	78.9	39.7	39.99	Requires peak vehicles
Re-route 28X directly to the Airport and double service on 29 to Robinson (incl. weekends)	$1,581,000	110,823	$14.27	18.0	53.0	30.9	25.0	39.2	26.7	44.2	38.37	Requires peak vehicles
Extend 64 to Ross Park Mall Route via 40th St Bridge to Babcock Blvd/McKnight Rd	$1,628,000	16,640	$97.84	2.6	53.4	40.8	11.0	48.4	54.3	56.0	37.35	Requires peak vehicles
Add Sunday service to 39	$129,000	17,986	$7.17	35.7	58.1	17.4	19.0	11.5	1.8	18.0	37.26	Put in if budget allows
Extend 67 weekend service to CCAC Boyce Campus	$180,000	14,624	$12.31	20.8	52.6	29.9	16.3	53.3	6.4	38.4	37.26	Put in if budget allows
Add Saturday and Sunday service to P16	$610,000	7,505	$81.27	3.2	61.7	30.7	21.3	66.8	7.0	45.6	36.82	Put in if budget allows
Add Sunday service to 74	$333,000	14,332	$23.24	11.0	77.0	21.5	16.5	17.9	4.8	22.0	36.67	Put in if budget allows
Restore Perry Hwy Route to Downtown from McCandless	$1,841,000	185,997	$9.90	25.9	48.3	14.9	33.9	26.8	23.1	35.8	36.66	Requires peak vehicles
Extend 78 to Pittsburgh Mills Mall on weekends	$216,000	7,904	$27.33	9.4	70.6	28.3	40.0	7.6	4.6	29.2	36.38	Put in if budget allows
Restore 84B South Oakland	$880,000	38,092	$23.10	11.1	66.6	8.3	22.6	14.0	40.0	30.8	36.14	Requires peak vehicles
Reduce 61D to end in Oakland & double frequency on 61C	$4,167,000	179	$23,344	2.0	76.1	1.0	1.0	1.0	80.2	30.2	36.09	Reduces service
Extend 89 to Downtown	$1,102,000	(1,785)	-$617.37	1.0	82.7	4.9	1.0	34.4	25.3	23.8	35.81	Requires peak vehicles
Expand P16 to hourly service all day (weekdays)	$1,842,000	1,607	$1,146	2.0	66.4	38.2	1.0	58.7	9.9	39.1	35.81	Requires peak vehicles
Add Sunday service to 53	$150,000	14,575	$10.29	24.9	61.5	17.4	22.0	15.6	2.7	20.9	35.76	Put in if budget allows
Restore 3/1F Millvale to Downtown	$970,000	58,191	$16.67	15.4	46.4	24.3	27.2	51.5	22.0	45.3	35.70	Requires peak vehicles
Extend P3 to West Busway via Carson Street	$5,049,000	92,285	$54.71	4.7	70.8	4.9	1.0	19.0	61.0	31.1	35.54	Requires peak vehicles
Create a new route linking Century III Mall to Oakland	$339,000	36,593	$9.26	27.7	60.2	21.5	2.0	23.2	3.3	18.1	35.34	Requires peak vehicles
Extend 89 to Oakland	$897,000	(1,785)	-$502.52	1.0	83.5	4.9	1.0	26.1	25.3	20.7	35.09	Requires peak vehicles
Restore 5 from Waterworks to Natrona Heights	$819,000	61,455	$13.33	19.2	55.8	16.7	30.3	15.8	16.7	28.8	34.59	Requires peak vehicles
Add Saturday and Sunday service to 93	$528,000	31,815	$16.60	15.4	70.0	9.7	2.0	30.2	7.9	18.0	34.48	Put in if budget allows
Extend Route 64 to Millvale	$586,000	25,224	$23.23	11.0	58.1	23.1	1.0	11.4	54.3	32.5	33.89	Requires peak vehicles
Restore 70	$2,394,000	106,770	$22.42	11.4	54.5	27.4	1.0	50.1	18.5	35.2	33.69	Requires peak vehicles
Mifflin Estates Service	$346,000	18,921	$18.29	14.0	62.3	13.4	2.7	16.1	2.3	3.4	33.25	Put in if budget allows
Restore P79 East Hills Flyer	$243,000	(32,130)	($7.56)	1.0	92.0	4.9	1.0	1.0	11.0	6.5	33.16	Requires peak vehicles
Re-route 75 through Bates/2nd Ave to E Carson St	$1,310,000	17,850	$73.39	3.5	67.4	6.3	3.3	3.5	2.4	27.4	32.76	Reduces service

GENERAL INFORMATION		EFFICIENCY		EQUITY	EFFECTIVENESS						FINAL RANKING
Generalized Service Request	Estimated Annual Cost (Savings)	Estimated Annual Ridership	Cost (Savings) per Rider Gained	Efficiency Score	Equity Score	Travel Time	Jobs and Residents	Expanded Service Area	Weekly Added Trips	Effectiveness Score	**Final Score**	Recommendation
Add Saturday and Sunday service to 36	$230,000	14,454	$15.91	16.1	45.2	24.3	44.0	29.8	4.0	37.0	32.74	Put in if budget allows
Extend 88 to Wilk Station & reduce71C to garage (half wkdy, all wknd)	$806,000	179	$4,515	2.0	78.2	4.9	1.0	12.4	30.5	17.7	32.65	Reduces service
Restore 11B and 13B to Evergreen and Babcock Blvd to Downtown	$273,000	40,520	$6.74	38.0	45.8	11.1	9.3	14.6	3.3	13.9	32.57	Requires peak vehicles
Extend 60 to Boston	$97,000	357	$271.71	2.0	80.1	7.6	6.7	10.2	15.4	14.5	32.20	Put in if budget allows
Expand 77 to Leechburg Gardens / CCAC Boyce Campus on weekends	$194,000	6,500	$29.85	8.6	46.9	9.7	17.7	75.6	9.0	40.6	32.02	Put in if budget allows
Re-route 57 to Southside Works then Waterfront	$530,000	4,284	$123.72	2.1	70.4	12.5	1.0	11.2	40.2	23.5	32.00	Put in if budget allows
Restore 3 through Shaler Twp via Vilsack/Anderson/Wible/Evergreen to Millvale then Downtown	1,594,000	84,660	$18.83	13.6	37.3	20.8	27.2	51.5	22.5	44.2	31.72	Reduces service
Restore 04 McCandless to Oakland	$455,000	73,440	$6.20	41.4	42.0	4.9	1.0	20.7	5.5	11.6	31.65	Requires peak vehicles
Restore Brown Line (light rail) during peak periods	$1,055,000	30,849	$34.20	7.5	61.1	1.4	1.0	64.3	6.0	26.4	31.64	Requires peak vehicles
Add Saturday and Sunday service to 71	$207,000	4,819	$42.96	6.0	73.4	6.9	9.7	17.5	4.4	14.0	31.10	Put in if budget allows
Restore JL Flyer from Pleasant Hills to Downtown via Old Clairton Rd	$546,000	36,593	$14.92	17.2	56.6	15.8	7.0	24.3	4.4	18.6	30.80	Requires peak vehicles
Create a new route from Morningside to Squirrel Hill via Bakery Square	$472,000	12,674	$37.24	6.9	61.3	12.5	1.0	39.1	13.2	23.8	30.66	Requires peak vehicles
Add Saturday service to 52	$239,000	13,577	$17.60	14.6	62.5	11.8	6.6	17.2	2.9	14.0	30.35	Put in if budget allows
Extend 69 weekend service into Downtown	$204,000	(7,865)	-$25.94	1.0	68.7	8.3	1.0	44.4	4.8	21.2	30.31	Put in if budget allows
Extend 58 to Waterfront on weekends instead of Oakland and add weekend service to 93	$520,000	32,159	$16.17	15.8	62.1	4.9	1.0	19.2	6.8	11.6	29.84	Reduces service
Add Sunday service to 4	$122,000	7,836	$15.57	16.5	50.7	27.8	8.6	12.9	3.5	19.1	28.75	Put in if budget allows
Expand 4 to always serve entire route and to run later on weekday evenings	$159,000	10,710	$14.85	17.3	50.7	27.8	1.0	12.7	7.7	17.8	28.58	Put in if budget allows
Restore route from Mt. Lebanon to Oakland	$1,014,000	58,905	$17.21	14.9	52.8	4.9	1.0	35.5	7.7	17.8	28.49	Requires peak vehicles
Restore UV overnight circulator route on Fridays and Saturdays	$467,000	10,815	$43.18	5.9	62.8	4.9	1.0	31.6	7.9	16.4	28.37	Put in if budget allows
Extend 16 to Center and Walliston	$462,000	38,824	$11.90	21.5	27.8	20.1	1.0	21.9	50.1	33.8	27.69	Requires peak vehicles
Extend 36 to Oakland	$450,000	24,455	$18.40	13.9	51.3	4.9	1.0	11.1	23.1	14.5	26.58	Requires peak vehicles
Extend 91 to Sharps Hill	$221,000	2,499	$88.44	2.9	57.5	7.6	11.8	22.6	11.0	19.2	26.53	Requires peak vehicles
Re-route 43 into a single one way loop	$1,000	(30,167)	-$0.03	1.0	59.6	1.0	1.0	1.0	31.6	12.6	24.38	Put in if budget allows
Create a new route from Bakery Square to Squirrel Hill (direct)	$475,000	4,820	$98.56	2.6	53.4	3.5	1.0	25.4	13.2	15.6	23.88	Requires peak vehicles
Extend 12 weekend service into North Park	$26,000	952	$27.31	9.4	44.3	19.4	4.1	12.6	9.3	16.5	23.39	Reduces service
65 Squirrel Hill extension down Beechwood Blvd to Greenfield	$165,000	10,282	$16.05	16.0	45.8	4.9	6.5	0.7	11.0	8.4	23.37	Requires peak vehicles
Add Saturday service to 87 (Morningside variant)	$233,000	3,042	$76.59	3.3	53.2	1.0	2.0	13.9	4.8	7.9	21.48	Put in if budget allows
Extend P67 to Concordia Monroeville	$273,000	5,355	$50.98	5.0	38.4	9.9	7.0	4.3	8.2	10.6	18.01	Requires peak vehicles

PLANNED CHANGES FOR FISCAL YEAR 2017

Planned Minor Changes to Meet Service Guidelines on Existing Routes

Route	Service Guideline Metric	Planned Changes	Annual Cost
Various	Overcrowding	Add trips when possible to reduce overcrowding	$209,000
	On TIme Performance	Adjust running times on routes not meeting on-time performance standard when possible	$300,000
Total Cost:			$ 509,000

Planned Major Changes to Meet Service Guidelines on Existing Routes

Some of the following changes were also major service requests, but because the route is not meeting service guidelines, these changes are made in order to bring the route into adherence with guidelines.

Route Type	Route	Service Day(s)	Service Guideline Metric	Planned Changes	Annual Cost
Rapid	G2	Saturday and Sunday	Frequency	Change frequency from every 45 minutes to every 30 minutes.	$15,000
Express	G3	Weekday	In-service percentage	Expand service to include reverse-direction commute trips to University Boulevard Park and Ride.	$10,000
	P13	Weekday	Passengers per revenue vehicle hour	Move route from East Busway onto Route 28 to improve speed/travel time.	$0
Local	17/18	All days	In-service time, passengers per revenue vehicle hour	Reduce trips on Route 18 to weekday peak periods (7-9am, 3-6pm) only. Expand Route 17 to include evening and weekend service to replace lost service on Route 18 in conjunction with re-routing Route 17 onto Beaver Ave to allow for users of Route 18 a single-trip ride to Downtown Pittsburgh.	($43,000)
	21	Sunday	Frequency	Change frequency from every 120 minutes to every 90 minutes.	$100,000
	41	Sunday	Frequency	Change frequency from every 120 minutes to every 90 minutes.	$100,000
Total Cost:					$ 182,000

Planned Major Changes to Expand Service

Route Type	Route	Service Day(s)	Service Request Score	Planned Changes	Annual Cost
Local	79	Weekday	49.64	Expand Route 79 service to Lincoln Loop via Mt Carmel Rd	$273,000
		Saturday and Sunday	44.38	Expand Route 79 service to Lincoln Loop via Mt Carmel Rd	$105,000
	89	Saturday and Sunday	46.37	Expand Route 89 service to include Saturday and Sunday service	$213,000
Express	P17	Weekday	54.35	Utilize out of service time on P17 to provide additional revenue service on Route 79	$18,000
Total Cost:					$609,000

Total cost of all planned changes: $1,300,000

*Planned changes are not set in stone at this point - changes to costs from optimization of schedules can occur, and all changes are subject to a Board approved fiscal year 2017 budget.

Summary

This was the first year that Port Authority has released route level data with respect to meeting service guidelines. As this process continues, the Authority hopes that it not only improves the transparency of decision-making processes, but that it leads to better efficiency, effectiveness, and equity in the system as a whole so that Allegheny County's transit system evolves along with the communities that it serves.

This document was produced by the Department of Service Planning and Evaluation in the Operations Division at the Port Authority of Allegheny County. For additional information on the creation of this report or Port Authority's services, please visit Port Authority's website at www.portauthority.org.