Bus Line Redesign

State of the System

January 2024

Pittsburgh Regional Transit

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The State of the System Overview

What Is Bus Line Redesign?

Bus Line Redesign is a comprehensive rethinking of where our bus routes should go in a post-pandemic world. The study will consider where, when, and how people travel in and around our region, and recommend updates to bus routes to take riders where they want to go.

Why Are We Doing This Now?

Many of the bus routes in our region date back several decades and, in many cases, don't serve the Allegheny County of today.

In 2021, PRT completed the 25-year long-range plan, NEXTransit. The public told us one of our top priorities should be to design an updated bus network that better serves our communities, especially our most transit dependent riders. The global pandemic that began in 2020 has profoundly changed the way people go about their lives. Our network is still designed to take people to and from Downtown Pittsburgh, but traditional commuting patterns have changed significantly. Meanwhile, the system lacks service that links neighborhoods together, and certain areas of the county have no access to transit.

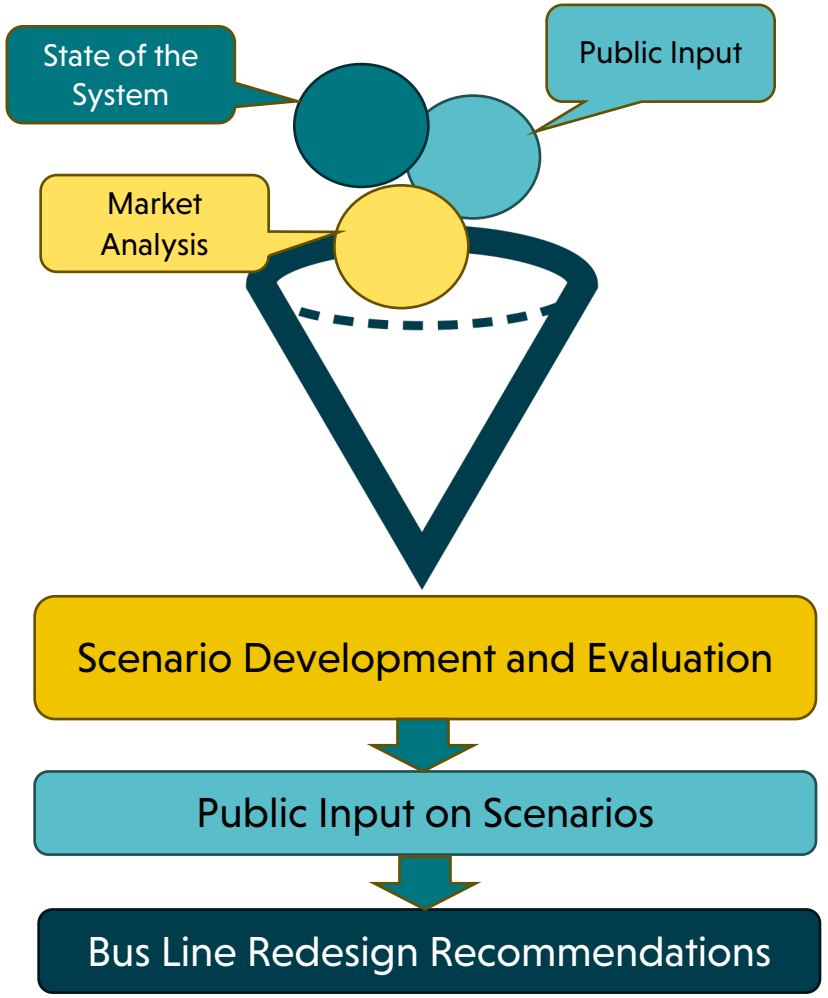
The State of the System Overview

Bus Line Redesign Process

An interactive **route profile dashboard** has been developed in Power BI to complement the system-level information presented in this report. The dashboard provides route-specific information regarding stop-level ridership, route service, and on-time performance characteristics.

Findings from this State of the System Report, combined with input received from our public and stakeholder engagement process and a separate transit market analysis, will be important information used in the development of alternative service plan scenarios.

The service plan scenarios will then be evaluated and shared with the public to determine final service recommendations for the Pittsburgh Regional Transit (PRT) Bus Line Redesign project.



The State of the System Overview

What Data Has Been Used in this State of the System Report?

The State of the System Report is an important first step in the Bus Line Redesign process. It's important to understand how our bus network is performing today and how network performance has changed since the pandemic. This report presents a comprehensive assessment of existing transit service characteristics and usage, through analysis of the following data sources:

Service Coverage: PRT bus and rail/busway station locations have been analyzed to determine service accessibility within Allegheny County, including access to frequent transit service.

Ridership Counts: Spring 2019 and 2023 ridership has been reviewed at the system, route, and stop level to determine ridership activity by geographic area, time of day, and service productivity. System level National Transit Database (NTD) reports have also been reviewed to determine annual service and cost performance trends.

On-Time Performance: PRT on-time performance data has been analyzed to determine route on-time performance characteristics by service category.

Route Transfers: PRT's Korbato data has been used to determine system and route level transfer activity, including identification of critical route-to-route transfer movements.

Passenger Service Requests and Bus Operator Input: This information has been collected to determine routes and geographic areas where additional and new transit services are being requested.

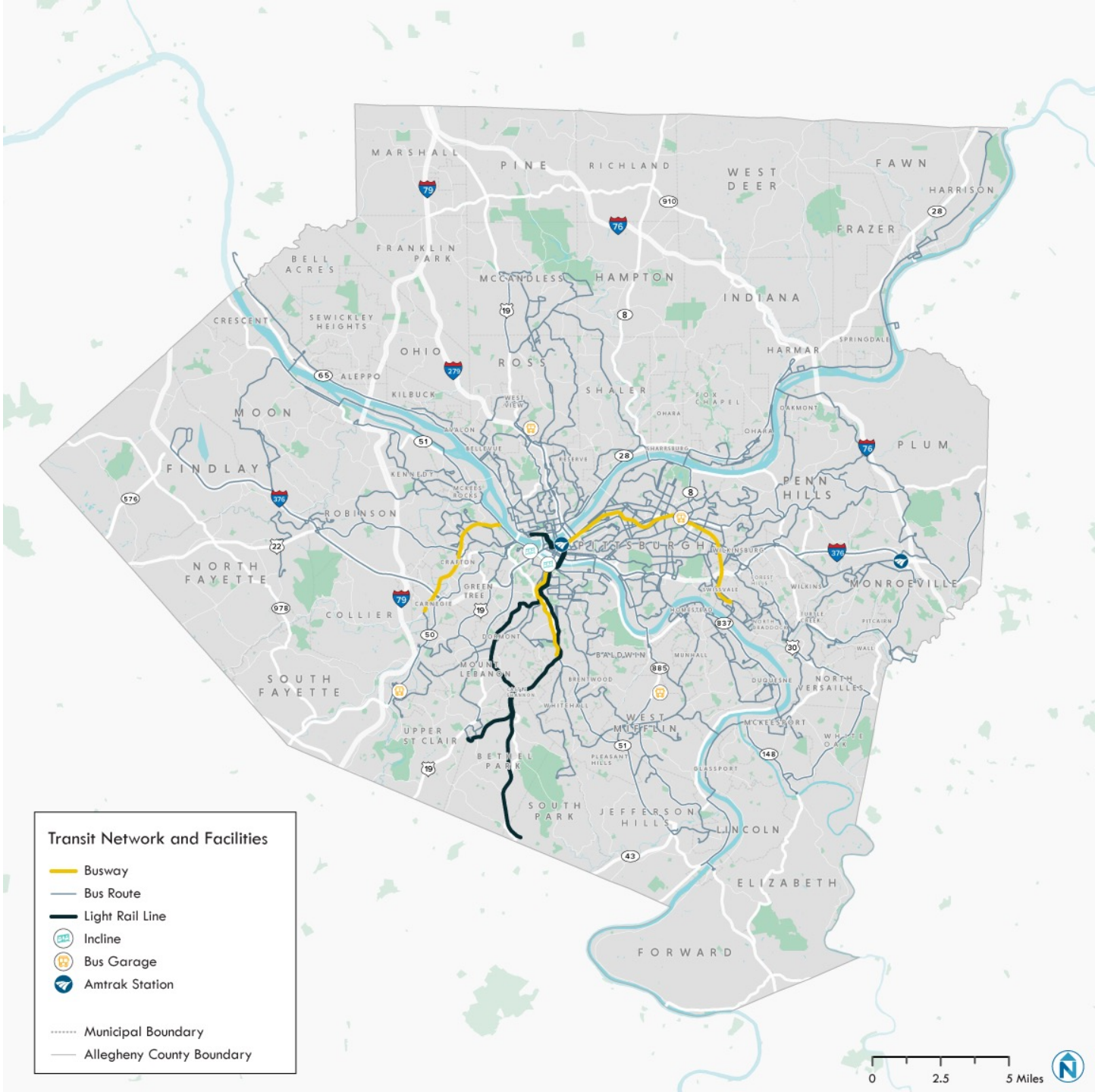
Transit Network Characteristics

Transit Network

PRT oversees and operates multiple modes of transit and numerous facilities that support public transit in Allegheny County.

- **Bus Routes and Busways:** 95 routes and multiple dedicated right-of-way facilities and related infrastructure
- **Light Rail Transit:** 3 light rail lines, known as “The T”
- **Inclines:** 2 funiculars, both designated as historic landmarks

Amtrak also operates two rail lines through Allegheny County, stopping in Downtown Pittsburgh.

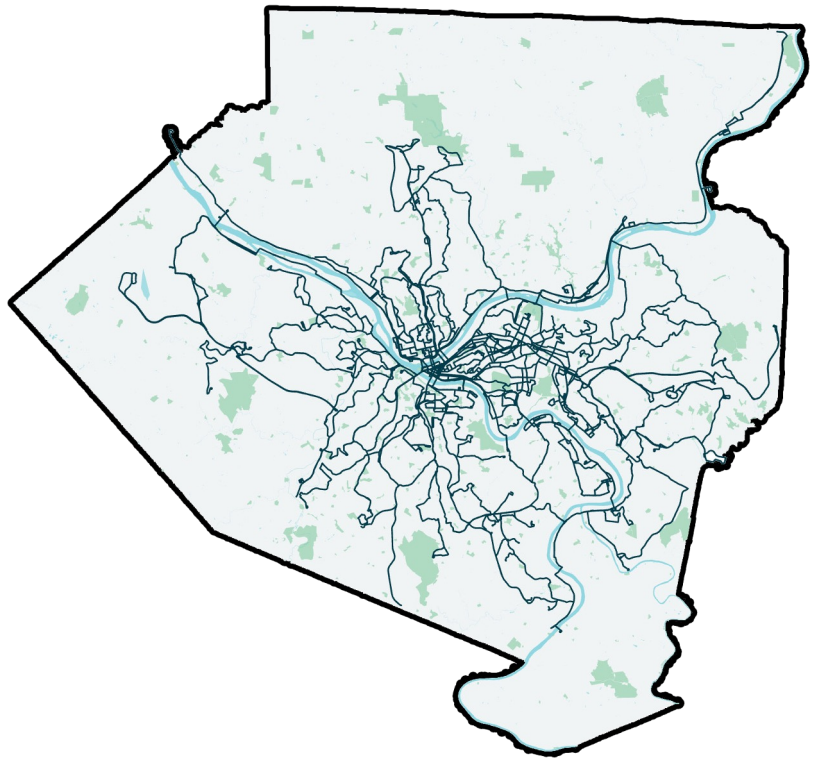


PRT's Bus Network

There are 95 PRT bus routes that operate in Allegheny County every weekday. PRT has classified routes into the following four categories, each having unique service performance standards:

- **Local:** The majority of PRT's routes are designated as local routes. Minimum service frequency standards are 30 minutes in the peak periods and 60 minutes in the midday period
- **Coverage:** These routes provide service coverage in the lower-density areas of the county and tend to be focused on serving a specific community. Minimum service frequency standards are 60 minutes in the peak periods and 75 minutes in the midday period.
- **Commuter:** These routes generally provide peak period service to and from Downtown Pittsburgh. Minimum service frequency standards are three trips in each peak period.
- **Rapid:** These routes are the all-stop routes operating on PRT busways (P1 and P2 on the MLK Jr. East Busway and G2 on the West Busway). Minimum service frequency standards are 10 minutes in the peak periods and 20 minutes in the midday period.

The number of routes operating each day of the week by service category are shown in the adjacent table.



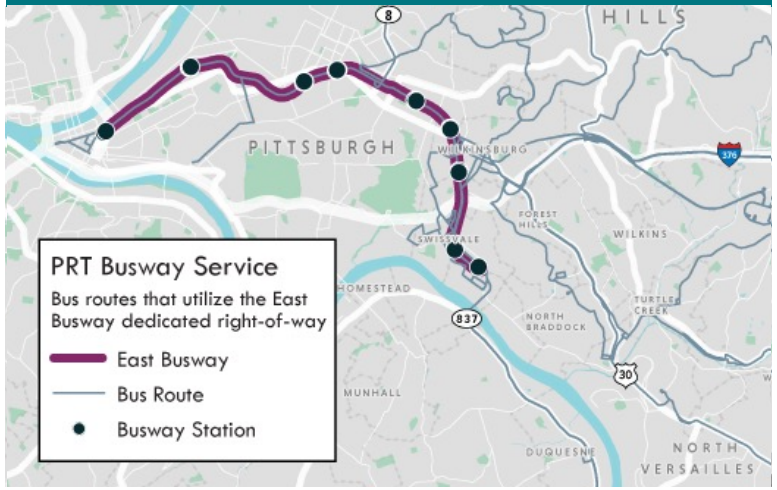
Service Category	Weekday	Saturday	Sunday
Local	55 routes	53 routes	52 routes
Coverage	12 routes	12 routes	12 routes
Commuter	25 routes	1 route	1 route
Rapid	3 routes	2 routes	2 routes
Total	**95 routes**	**68 routes**	**67 routes**

PRT's Busways

PRT has three dedicated busways as part of its transit network. Services on those facilities are as follows:

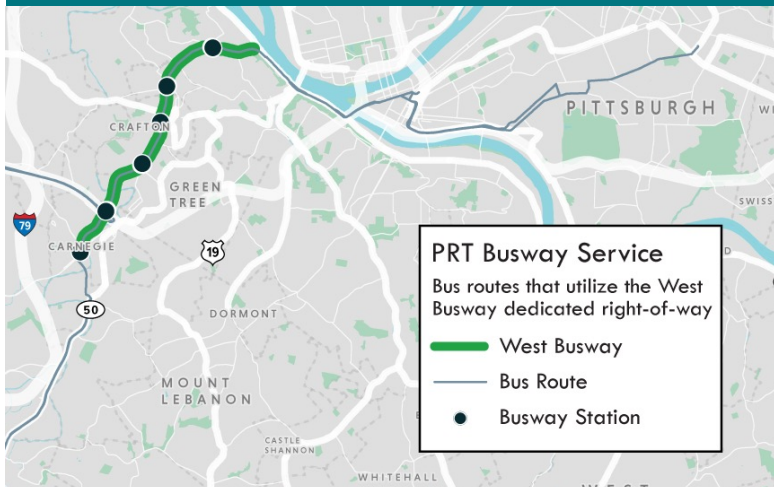
MLK Jr. East Busway:

This busway is 9.2 miles in length and has 9 busway stations. Rapid Route P1 operates to/from Downtown at 7.5 to 10-minute peak and 15-minute midday service frequencies. Rapid Route P3 operates to/from Oakland at 15-minute peak and 30-minute midday frequencies. Another 12 commuter routes use this facility to travel to/from Downtown Pittsburgh, providing additional service beyond the busway.



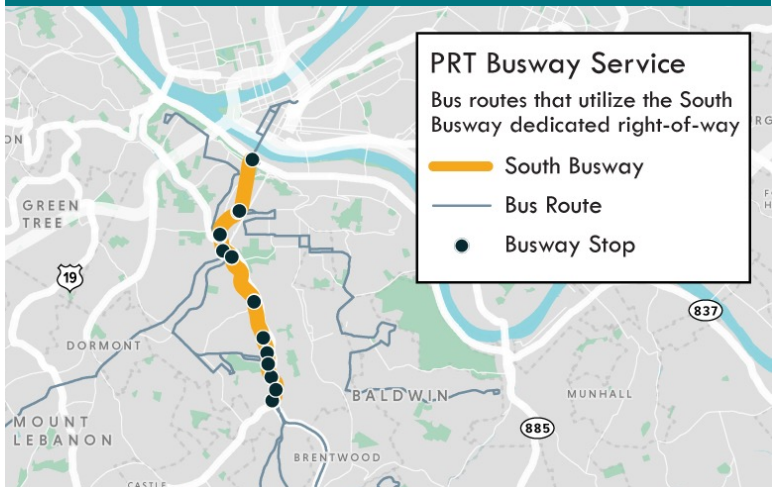
West Busway:

This busway is 5 miles long (ending at West Carson Street) and has 6 busway stations. Rapid Route G2 operates on this facility at 20-minute frequencies, with service continuing into downtown via West Carson Street. There are three other commuter routes that use this facility, including Route 28X to/from the Pittsburgh International Airport.



South Busway:

This South Busway is 4.3 miles long and has 10 stops. Unlike the MLK Jr. East Busway and the West Busway, there is no dedicated rapid route that operates exclusively on the South Busway, and it functions more as a bypass highway to PA 51. Rather, there are ten routes (five of which are commuter routes) that operate on the South Busway, each of these routes providing service beyond the busway.



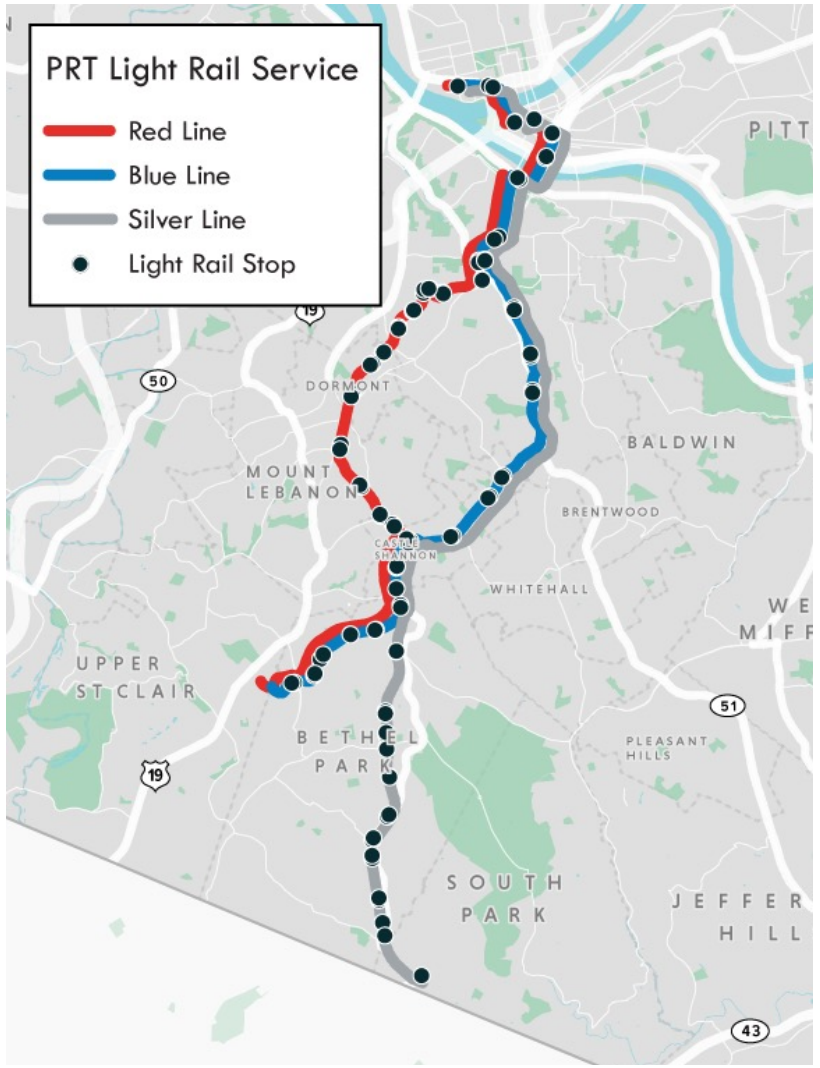
Other PRT Transit Services and Facilities

LRT: PRT operates over 26 miles of light rail transit service via its Red, Blue, and Silver lines, serving over 50 stations. The Red Line operates at 15-minute all-day service frequencies. The Blue Line operates at 10-minute peak and 20-minute midday service frequencies. The Silver Line operates at 15-minute peak and 30-minute midday service frequencies.

I-279 Busway/HOV Lanes: There are three commuter routes that utilize the I-279 Busway/HOV lanes facility – Routes O1, O12, and O5.

ACCESS Paratransit: ACCESS is PRT's advance reservation, shared-ride paratransit service. This service serves individuals with disabilities, clients of human service agencies, and adults aged 65 and older. Service is provided throughout Allegheny County seven days a week.

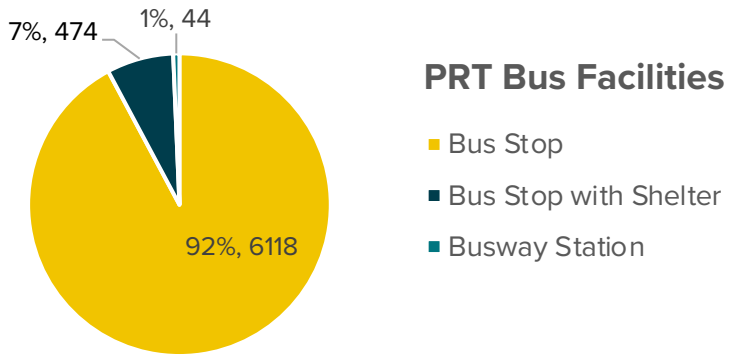
Inclines: PRT owns two Inclines – the Duquesne Incline (operated by a non-profit) and Monongahela Incline (operated by PRT), both of which operate approximately every 15 minutes.

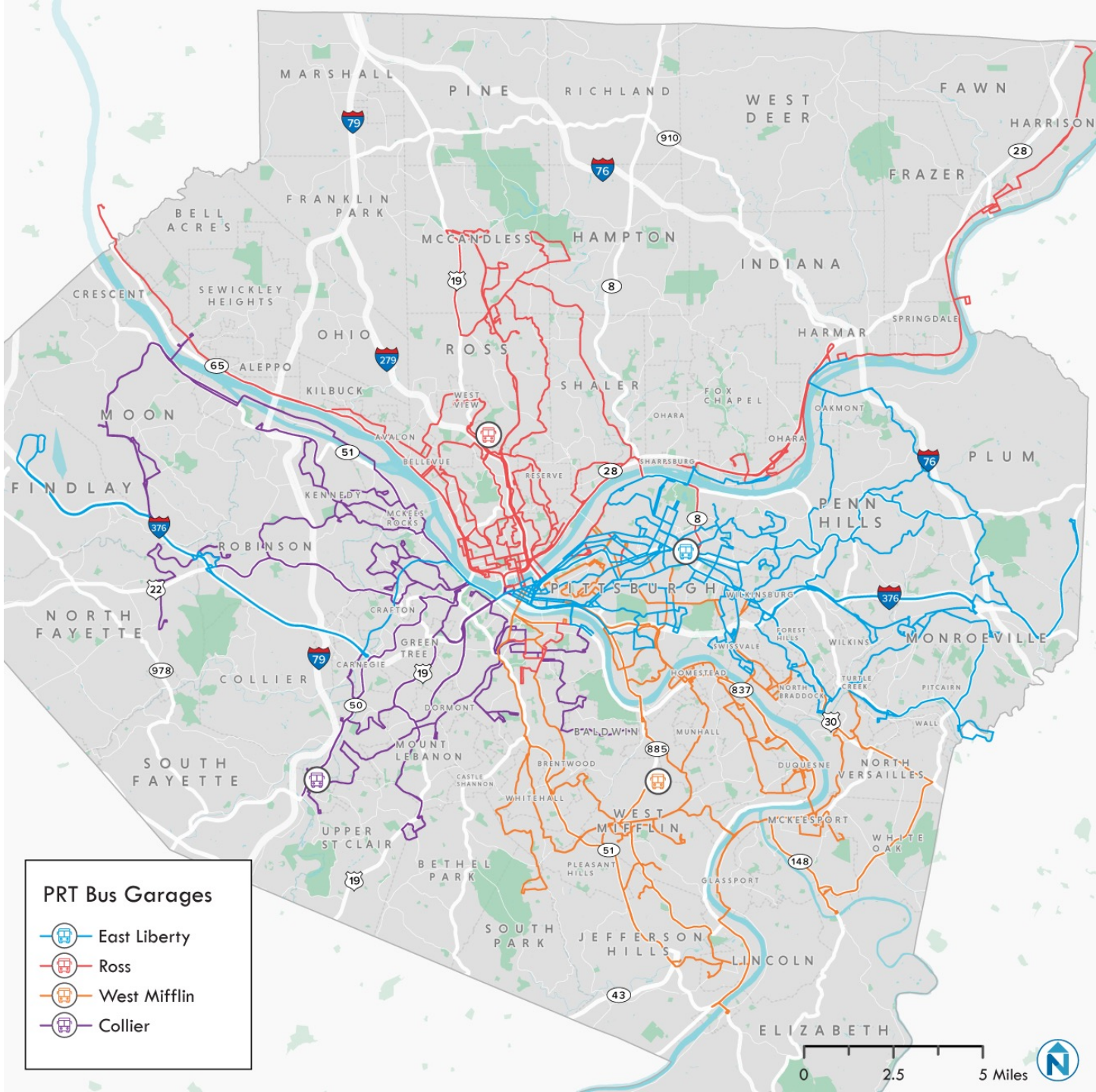


Bus Facilities

Garages: Four bus garages facilitate the operations and maintenance needs for PRT buses, with each route tied to a specific garage. There are 29 routes that operate out of the East Liberty garage in eastern Pittsburgh, 22 routes that operate out of the Ross garage in Ross Township, 25 routes that operate out of West Mifflin garage, and 19 routes that operate out of the Collier garage in Bridgeville. These garages are not passenger stops and do not act as bus terminals.

Bus Stops and Stations: PRT buses serve over 6,600 stops in 96 municipalities, with 41% in the City of Pittsburgh. 7% of bus stops have shelters, of which approximately 1/3 are PRT-owned shelters and 2/3 are non-PRT-owned shelters.





Fares

PRT's standard full fare is $2.75 per trip, valid for up to three hours with unlimited transfers. This fare is the same for cash and ConnectCard riders. Discounted fares are available for senior citizens, riders with disabilities, and children under the age of twelve.

There are three options available for paying a fare—cash, PRT's ConnectCard, and via a mobile application. PRT's ConnectCard is a reusable plastic smart card available to PRT riders. PRT riders can load value onto their ConnectCard online or at more than 100 locations throughout Allegheny County, including Busway and T stations, various grocery stores, and Goodwill stores. Fares can also be purchased through PRT's mobile app called Ready2Ride and through the Transit App.

PRT also has a U-Pass program available to students and staff at Carlow University, Carnegie Mellon University, Chatham University, Duquesne University, University of Pittsburgh, and Point Park University.

PRT's Job Perks program allows employers to offer public transit fares to employees at a pre-tax rate through payroll deduction. PRT's Bulk Pass Pilot Program also provides business and multifamily building managers the ability to buy discounted passes for use by employees or residents.

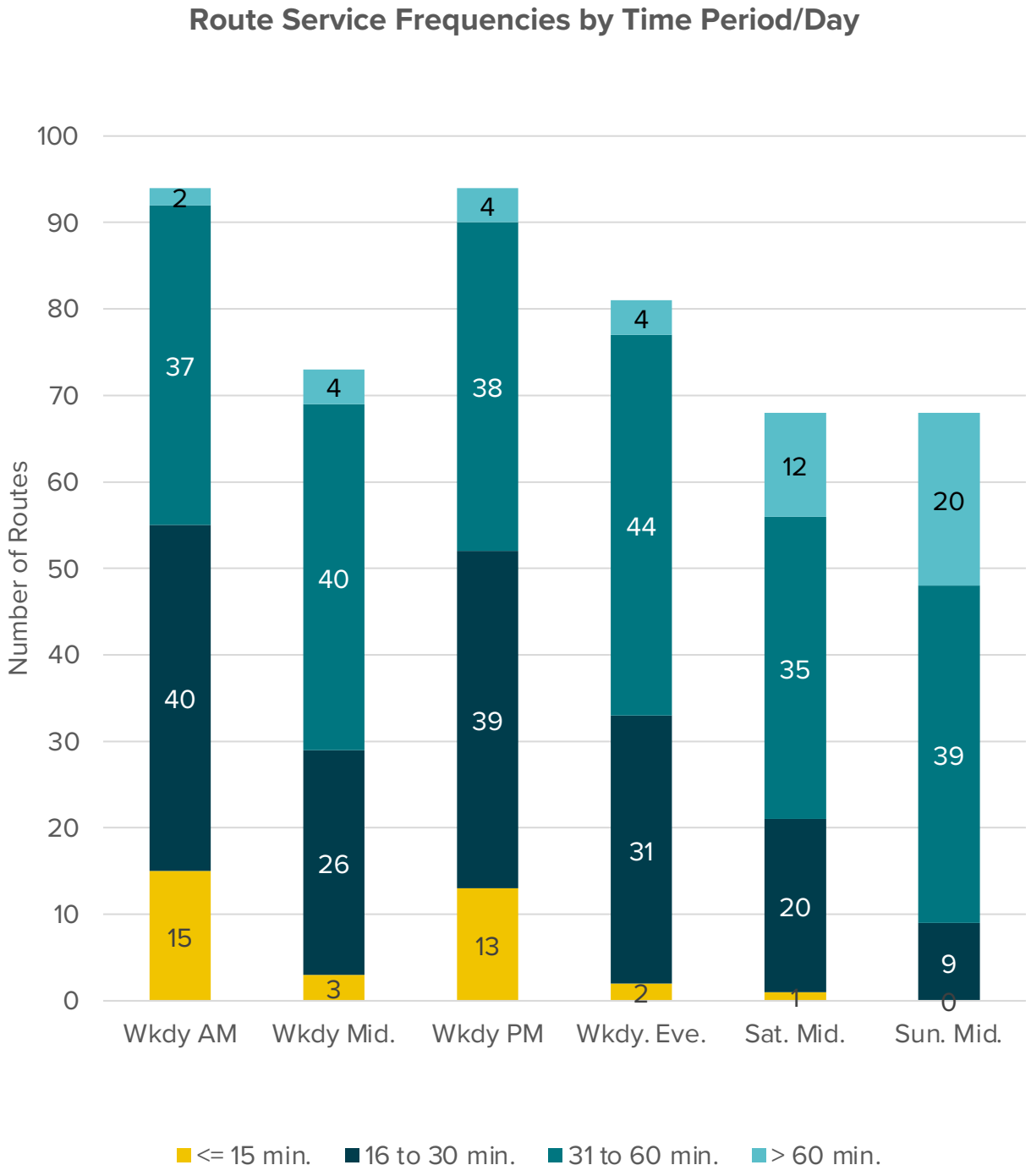
Product	Price
Full Fare (Value or Cash)	$2.75
Half Fare (Value or Cash)	$1.35
Day Pass	$7.00
7 Day Pass	$25.00
31 Day Pass	$97.50
Annual Pass	$1,072.50

Services Levels

Route Service Levels

The adjacent chart presents the number of PRT routes that are operating within specified service frequencies by time of day. On weekdays there are only a few routes that operate at less than 60-minute service frequencies. There are 13-15 routes that operate at 15-minute or better service frequencies in the a.m. and p.m. peak periods, with very few operating at this level of frequency during the midday and evening periods. Weekend service sees many more routes operating at 31 minutes or greater service frequencies.

PRT has several routes that operate along common road segments, resulting in a higher combined frequency along the trunk portion of a combination of routes (e.g., Routes 61A-D).

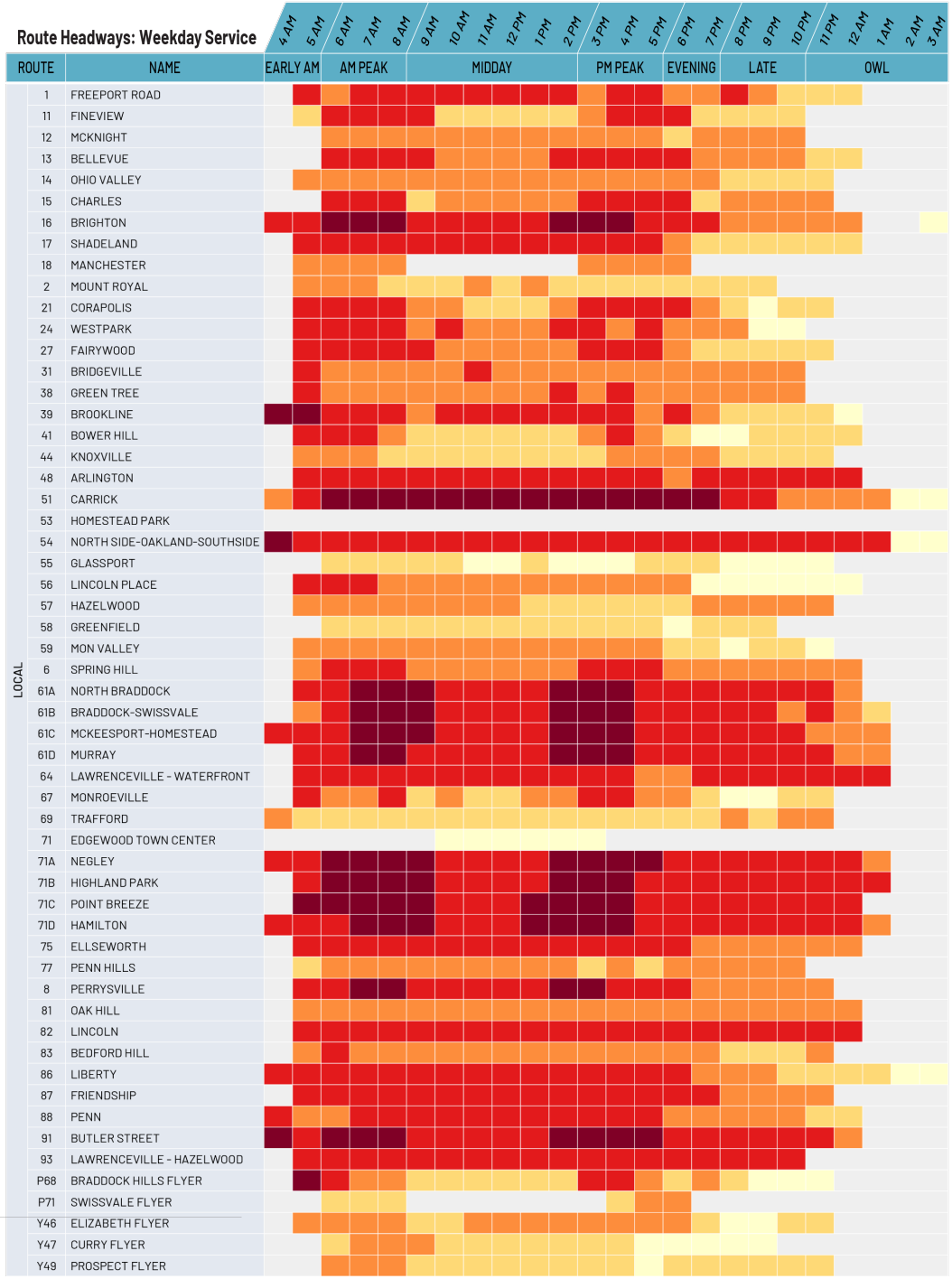


Route Service Levels

Local Routes: Weekdays

The adjacent chart presents weekday frequencies and spans of service for all designated local routes in the PRT network. Dark red cells indicate time periods when routes are operating at 15-minute or better frequencies.

As illustrated in this graph, Route 51 operates at a high frequency throughout the peak and midday time periods. Several other routes operate at high frequencies during the peak periods, such as the 61 and 71 series routes. Most local routes operate in the 30-minute or better frequency category in the a.m. and p.m. peak periods, with many also operating at this level of frequency during the midday period. Most local routes also operate until at least 10 p.m., with some operating beyond midnight.

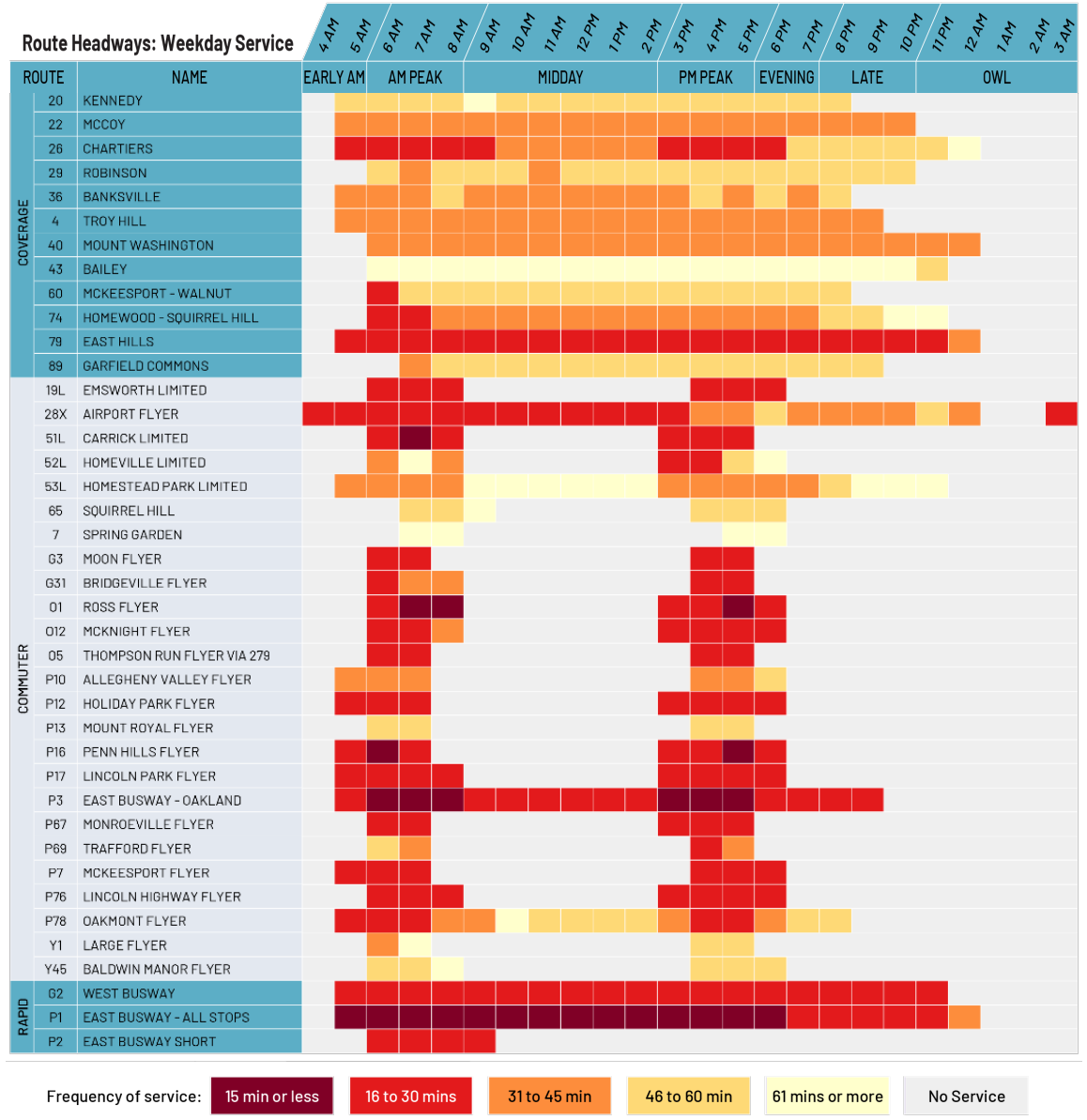


Route Service Levels

Non-Local Routes: Weekdays

The adjacent chart presents frequencies and spans of service for all other PRT routes that are operating on weekdays (coverage, commuter and rapid routes). Most coverage routes operate in the 30- to 60-minute service frequency category during the day and tend to operate until 10 p.m.

With a few exceptions, most commuter routes operate in the peak periods only. Route P1 (East Busway) operates at high frequencies throughout the peak and midday periods and operates until midnight.

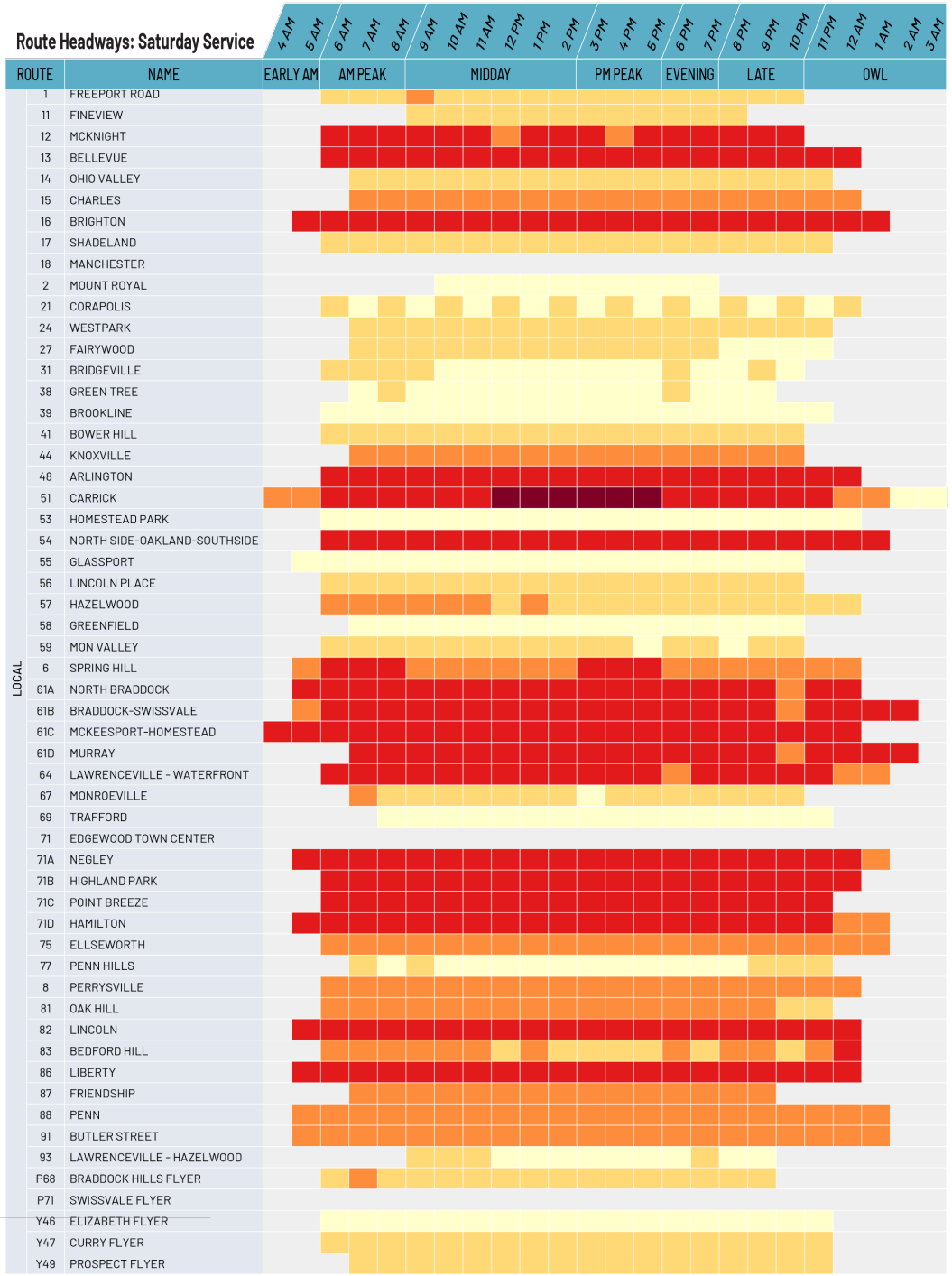


Route Service Levels

Local Routes: Saturdays

The adjacent chart presents Saturday frequencies and spans of service for all designated local routes in the PRT network. Dark red cells indicate time periods when routes are operating at 15-minute or better frequencies.

As illustrated in this graph, Route 51 is the only route that operates in the 15-minute or better frequency category, providing this level of service during the midday and p.m. peak periods. Several routes operate in the 16- to 30-minute frequency category, including the 61 and 71 series routes. Several other routes are at 31 or high service frequencies. There are several routes that operate in the 61-minute or more service frequency category. Most Saturday routes provide service until 10 p.m., with several operating until midnight or later.



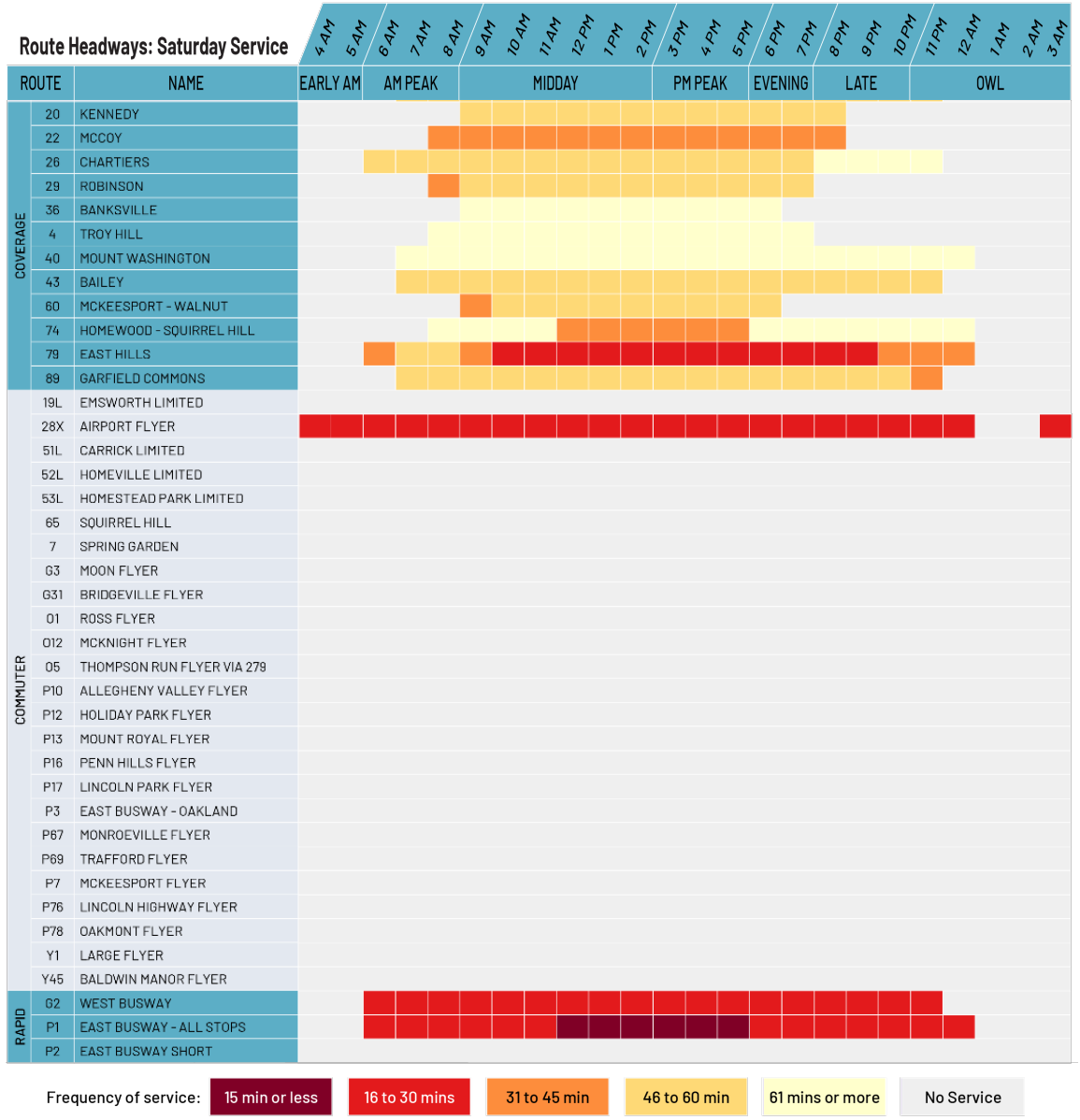
Frequency of service: 15 min or less | 16 to 30 mins | 31 to 45 min | 46 to 60 min | 61 mins or more | No Service

Route Service Levels

Non-Local Routes: Saturdays

The adjacent chart presents Saturday frequencies and spans of service for all other routes in the PRT network. All routes designated as coverage routes operate on Saturdays, with Route 79 (East Hills) operating in the 16- to 30-minute service category during the midday, p.m. and evening time periods. Only six coverage routes operate beyond 9 p.m.

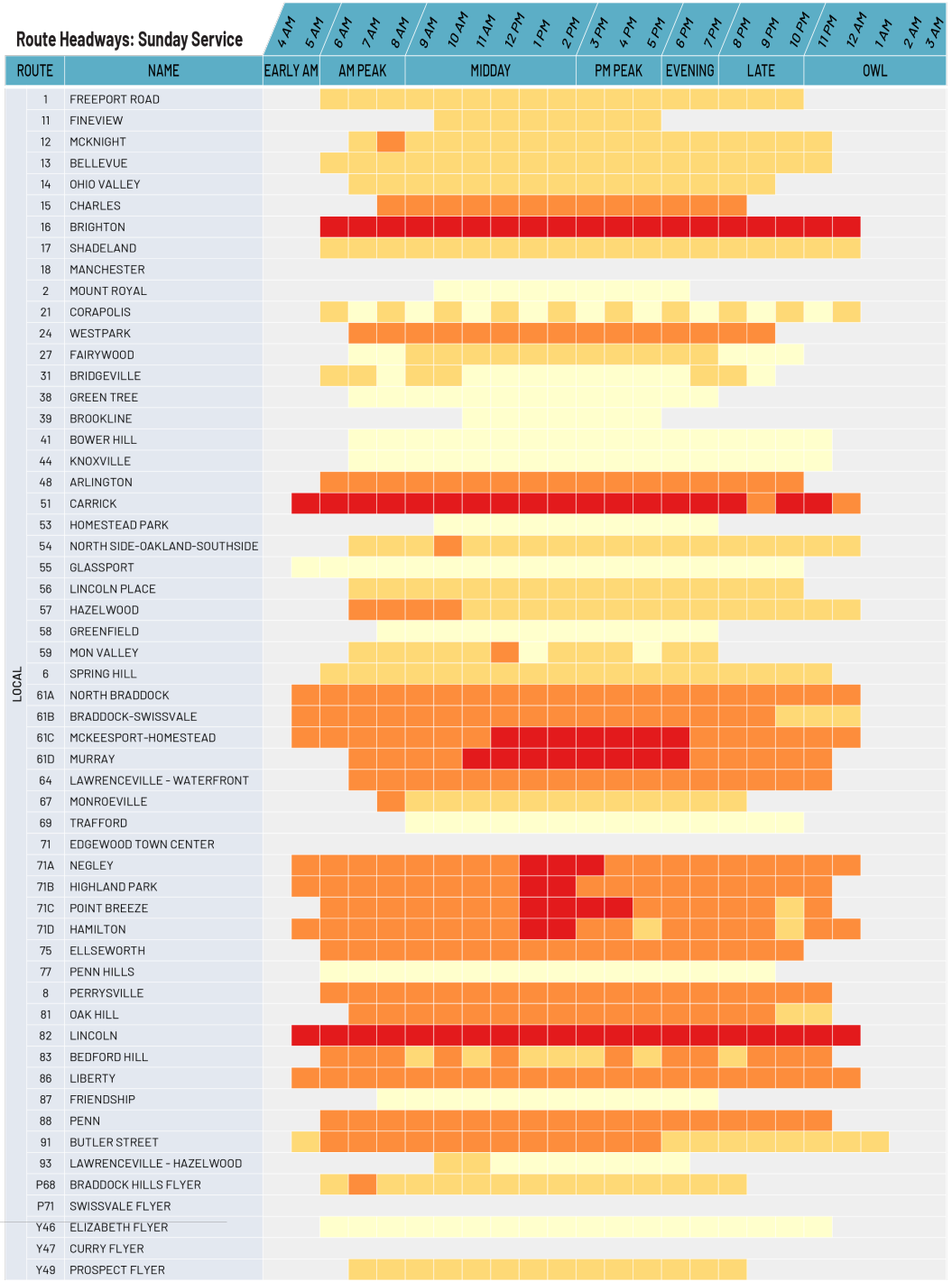
Only one commuter route operates on Saturdays, Route 28X. Rapid Routes G2 and P1 operate in the 16-minute or better frequency category, with Route P1 operating in the 15-minute or better frequency category during the midday and p.m. peak periods.



Route Service Levels

Local Routes: Sundays

The adjacent chart presents Sunday frequencies and spans of service for all designated local routes in the PRT network. As illustrated in this graph, there are three routes that operate in the 30-minute or better frequency category throughout the peak and midday periods—Routes 16, 51 and 82. Another six routes operate at this frequency for a portion of the day (generally midday and p.m. peak periods). About a dozen routes operate at frequencies worse than 60 minutes.

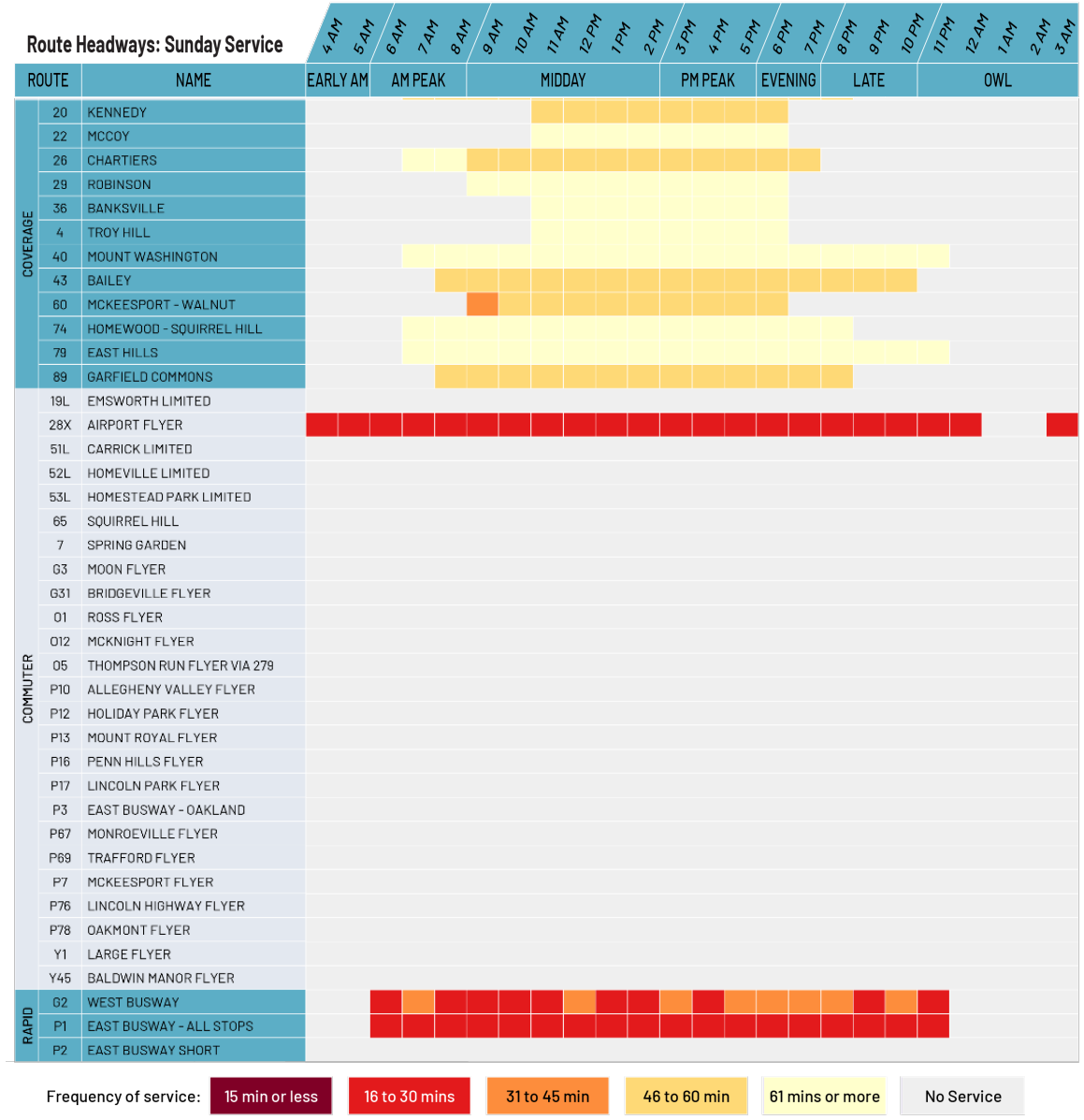


Route Service Levels

Non-Local Routes: Sundays

The adjacent chart presents Sunday frequencies and spans of service for all other routes in the PRT network. All routes designated as coverage routes operate on Sundays at frequencies in the 45- to 60-minute frequency category or worse.

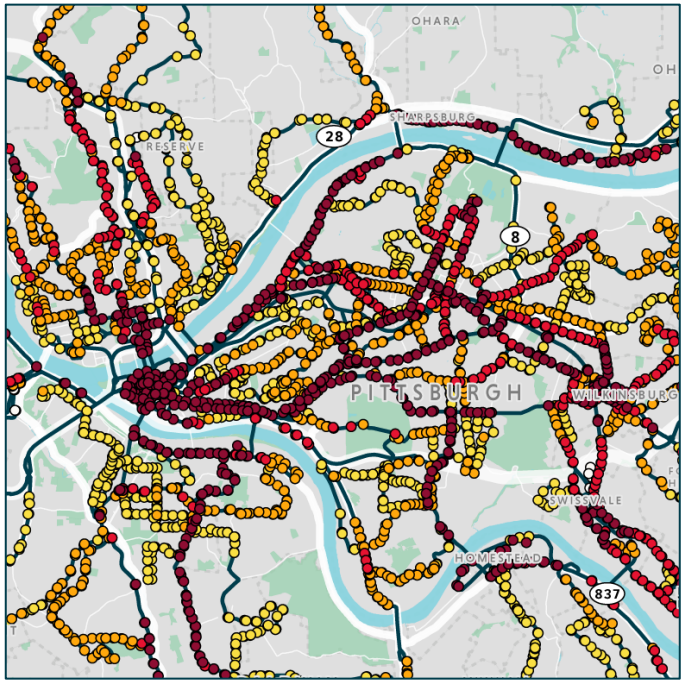
As was the case on Saturdays, only one commuter route is operating on Sundays, Route 28X. Rapid Routes G2 and P1 operate at 45-minute or better frequencies.



Bus Stop Service Levels

Weekday: AM Peak

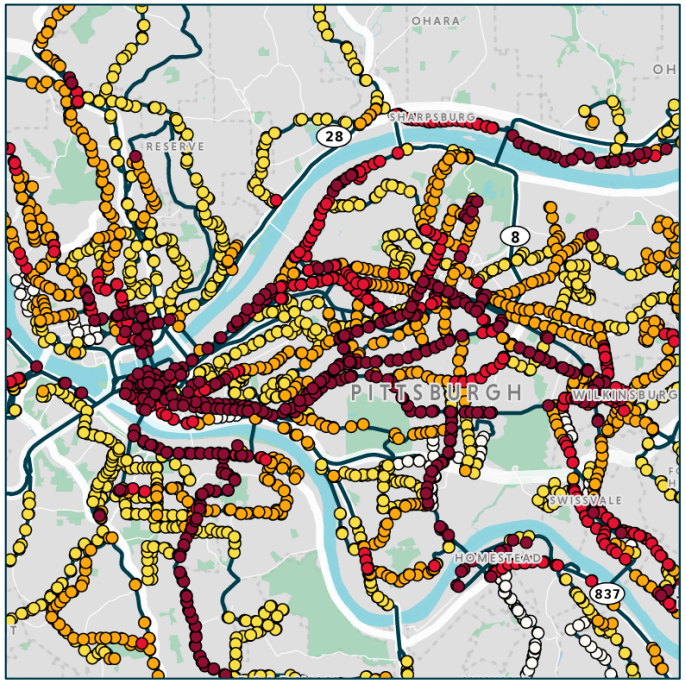
AM peak period bus service frequency is highest in the City of Pittsburgh, with buses arriving at Downtown stops and along key corridors leaving Downtown every 10 minutes or less on average during the week.

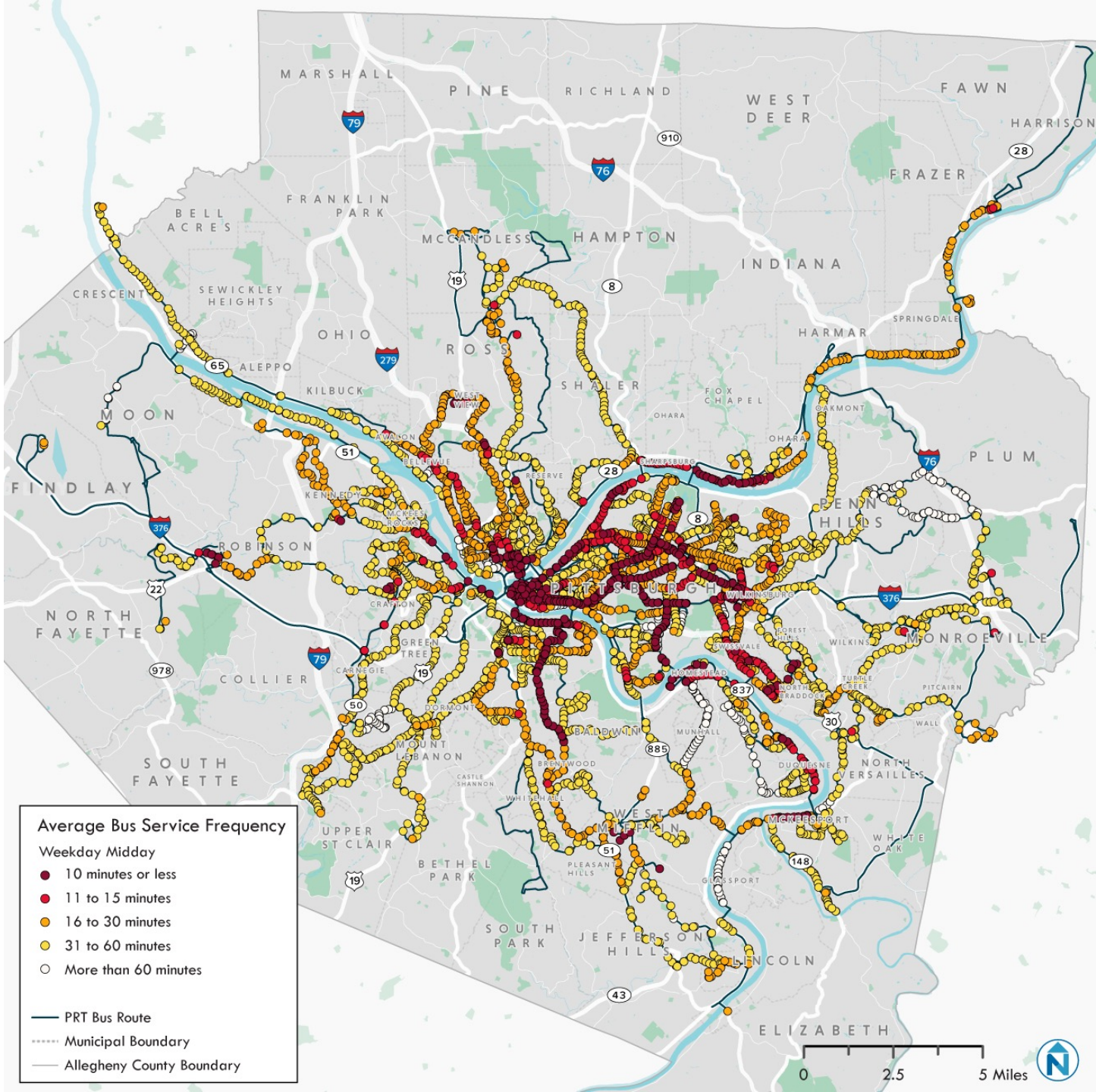


Bus Stop Service Levels

Weekday: Midday

Bus service is slightly less frequent during the midday, but there are still several corridors with service levels of 10-minutes or better such as Brownsville Road, Fifth Avenue and Penn Avenue.

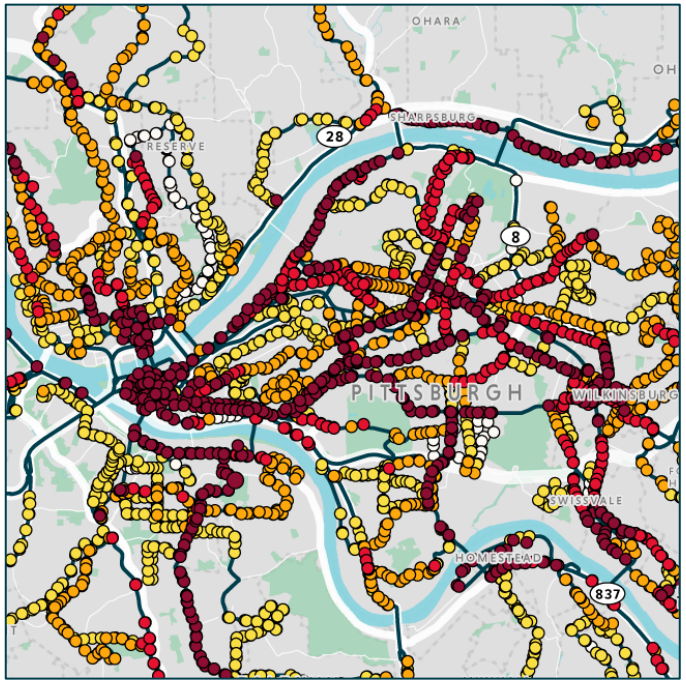


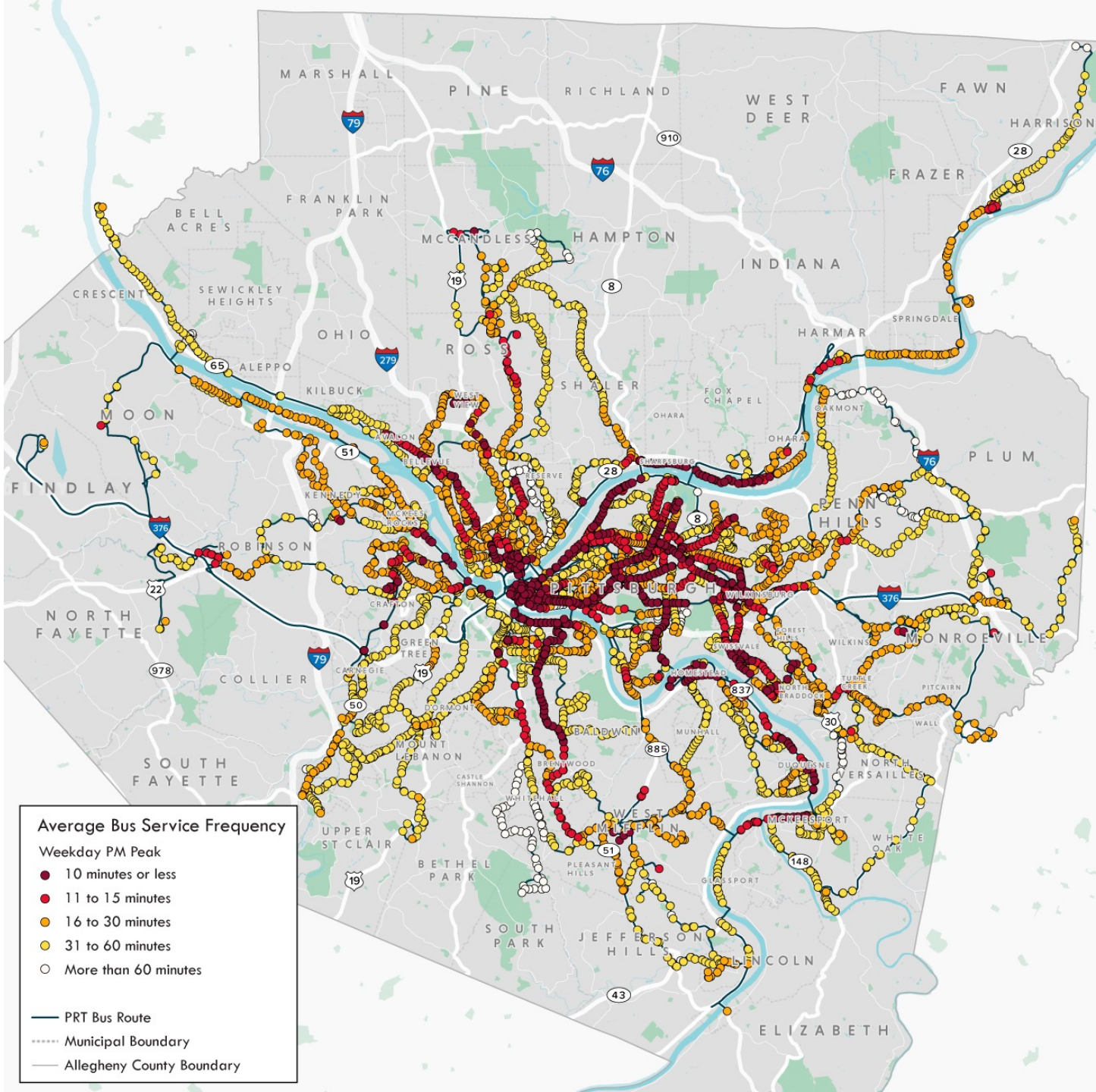


Bus Stop Service Levels

Weekday: PM Peak

Service levels in the PM peak are similar to what was observed in the AM peak period. There are some corridors with slightly lower service levels than in the AM Peak, such as Mt. Royal Boulevard and Greentree Road.

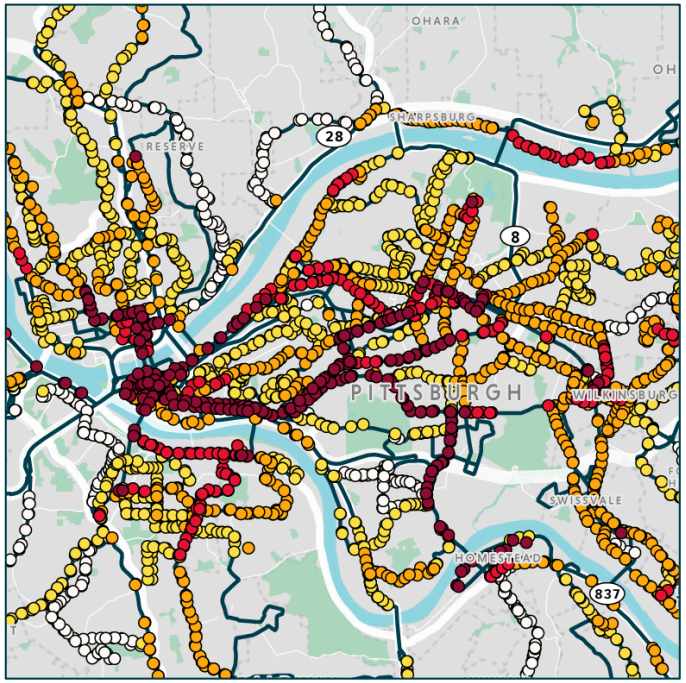




Bus Stop Service Levels

Saturday: Midday

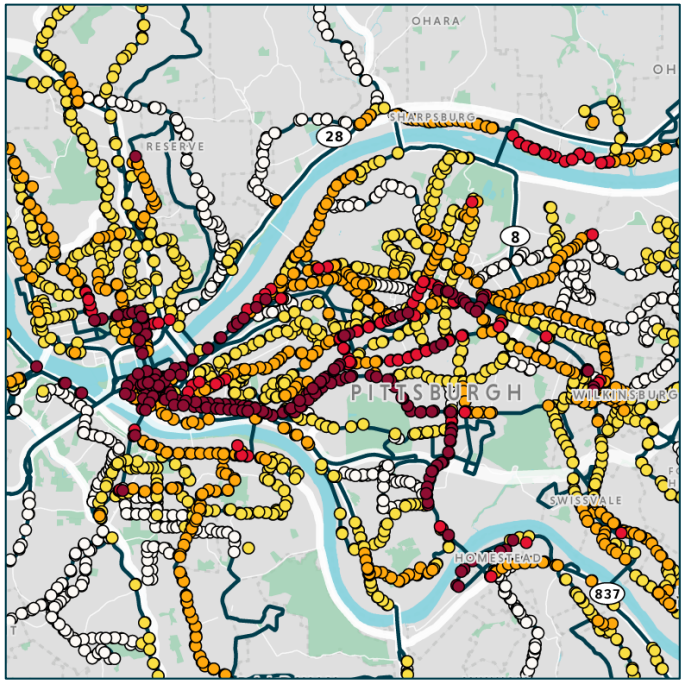
Saturday service coverage drops off from weekday service with the elimination of most commuter routes and two local routes. Corridors with 10-minute or better service levels are generally limited to roads in the City of Pittsburgh.

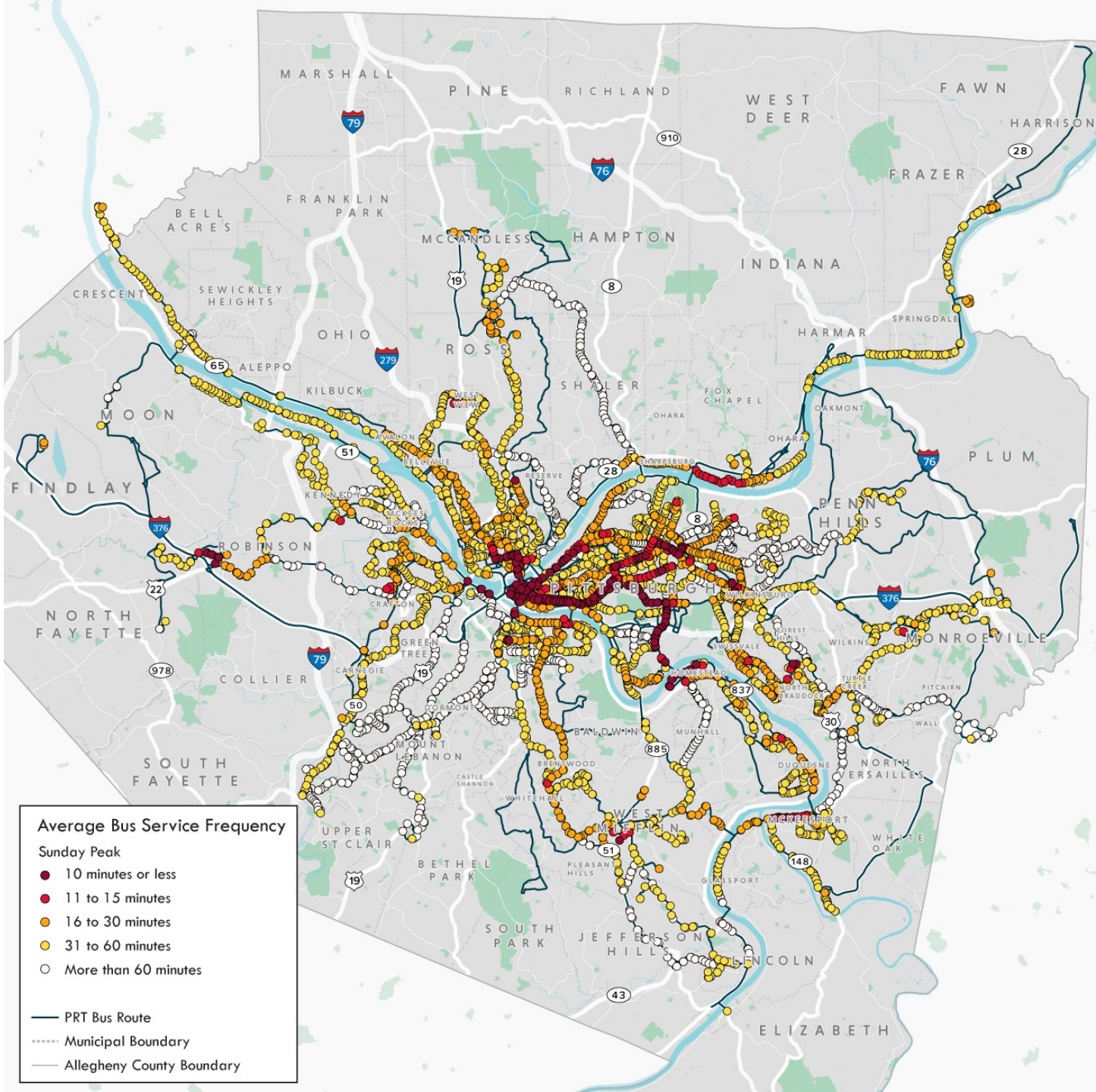


Bus Stop Service Levels

Sunday: Midday

Sunday service coverage is similar to Saturday service. Along some corridors, service levels drop to the 31- to 60-minute service frequency category.





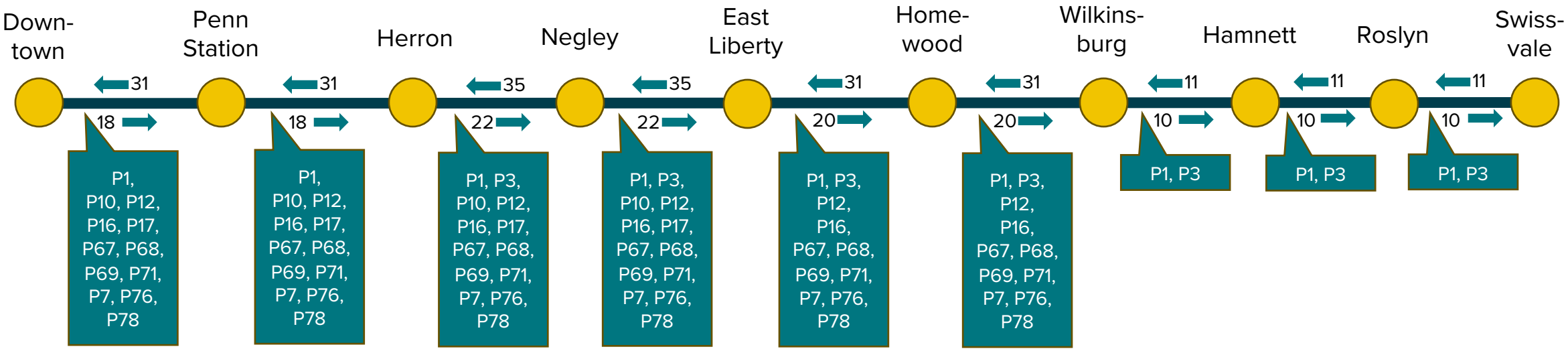
MLK Jr. East Busway Service Levels

Route P1 makes stops at all MLK Jr. East Busway stations and operates at 7.5- to 10-minute peak period and 15-minute midday period weekday service frequencies. Route P3 makes all stops between Swissvale and Negley and operates at 15-minute peak and 30-minute midday service frequencies. Route P3 travels to Oakland after leaving the busway.

There are 12 other routes operating on the busway, most between Wilkinsburg and Downtown. The graphic below identifies bus routes operating along each busway segment and AM peak hour bus volumes. Note that all P routes, except Routes P1-P3, restrict passenger boardings and discharges at some stations.

Weekday Bus Routes and AM Peak Hour Bus Volumes (6:30 to 7:30 AM)

*All numbers shown below represent the average number of minutes between stations for inbound and outbound buses

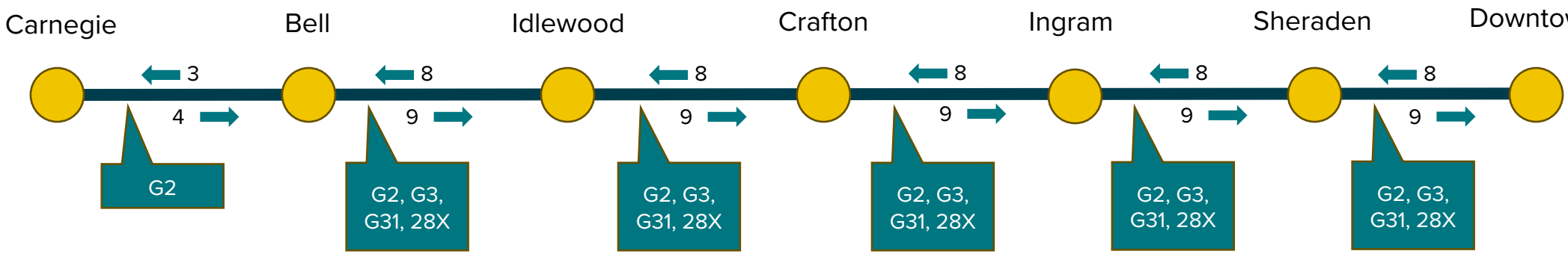


West Busway Service Levels

Route G2 makes stops at all West Busway stations and operates at 20-minute peak and midday weekday service frequencies. Route 28X (Airport Flyer) also operates all-day at 30-minute service frequencies. Routes G3 and G31 are peak period commuter routes. Routes 28X, G3 and G31 enter the busway at Bell Station. Note that Route 28X outbound trips only pick-up at Sheraden, Ingram and Crafton stations.

Weekday Bus Routes and AM Peak Hour Bus Volumes (6:30 to 7:30 AM)

*All numbers shown below represent the average number of minutes between stations for inbound and outbound buses

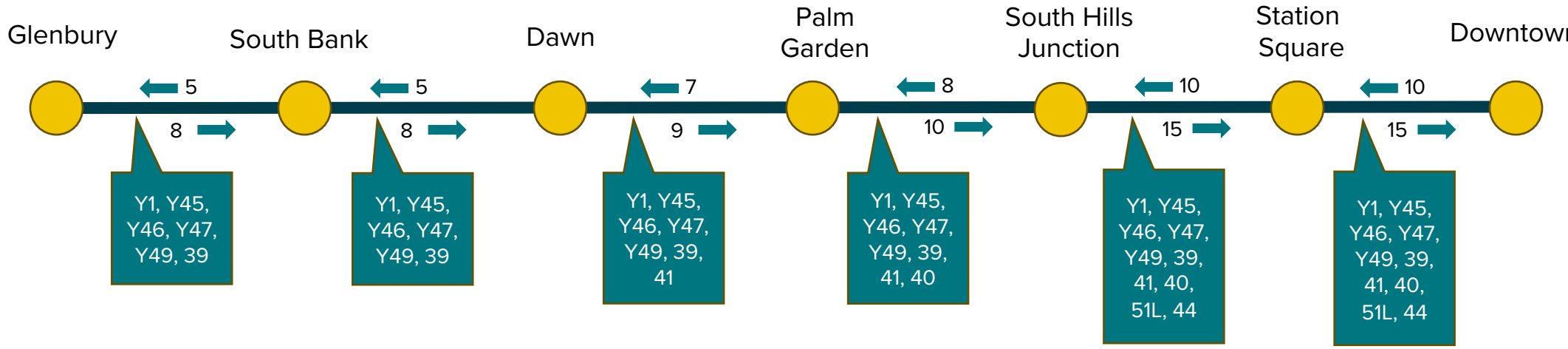


South Busway Service Levels

The South Busway is another important component of PRT's transit network with frequent service. Unlike the other busways, there is no dedicated route along the South Busway. Instead, there are ten routes that use all or portions of the busway, with five of those routes labeled as (Y) routes.

Weekday Bus Routes and AM Peak Hour Bus Volumes (6:30 to 7:30 AM)

*All numbers shown below represent the average number of minutes between stations for inbound and outbound buses



Additional stops between Glenbury and South Bank: Overbrook, Inglewood and Central
Additional stops between South Bank and Dawn: Whited, Edgebrook and Pioneer

Access to Transit

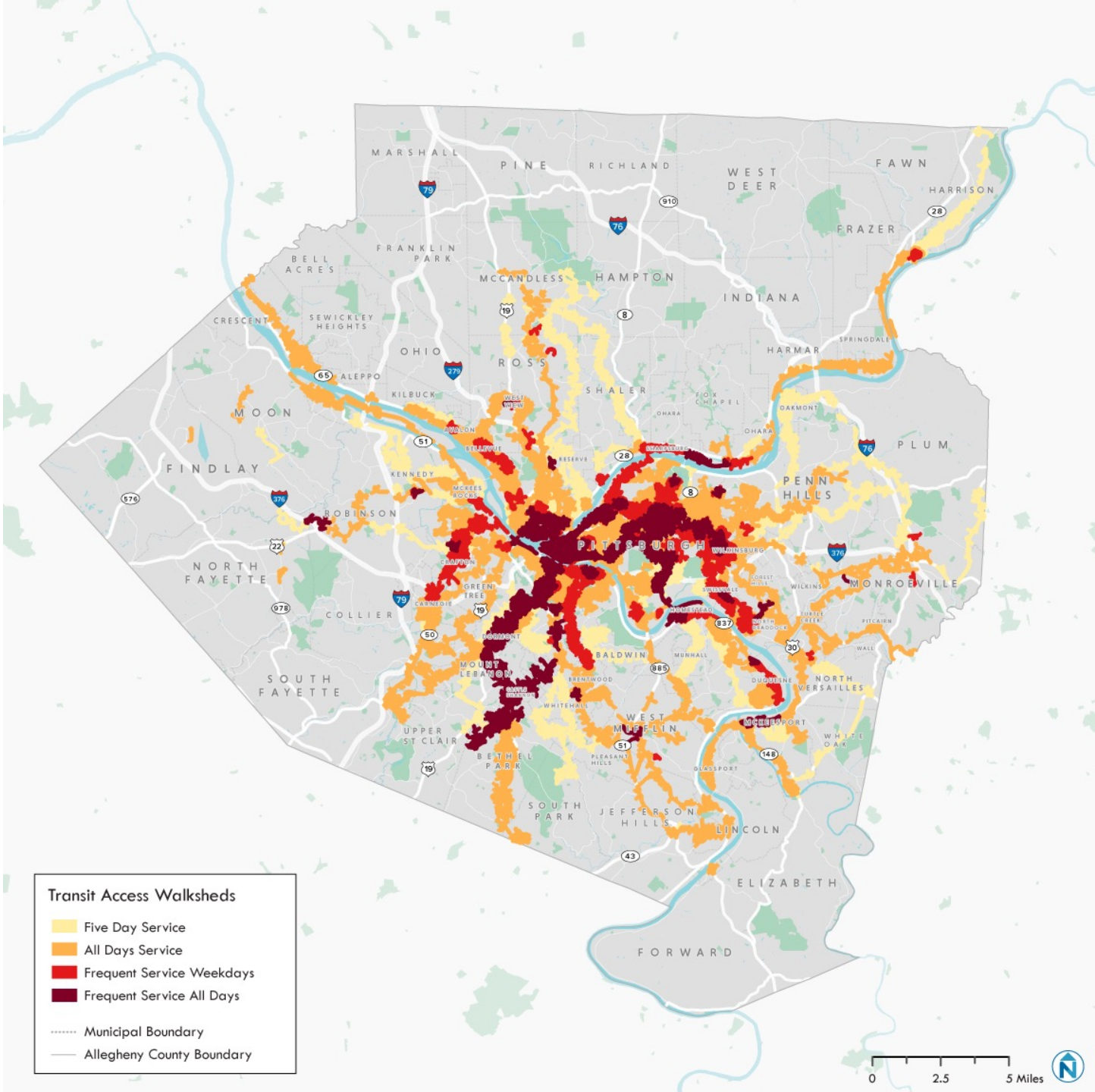
Access to Transit

PRT considers a location as having access to transit if it is within a ¼ mile walk from a transit stop or ½ mile walk from a transit station based on the road network.

While PRT service doesn't cover most of the *land area* in Allegheny County, over half of all the *residents and jobs* in the county are within walking distance of weekday transit service (based on the road network).

The frequent service walkshed, defined as being within walking distance from transit that comes at least every 15 minutes on weekdays, covers 21% of the population and 41% of jobs in Allegheny County. Coverage decreases when considering frequent service access seven days a week.

Coverage declines when considering population and jobs access based on sidewalk locations instead of roadway access. About 85% of population within walking distance to frequent transit service have access to that service via sidewalks. There is less sidewalk access in areas served by non-frequent service, with that 56% of population within walking distance to non-frequent service having access to that service via sidewalks.

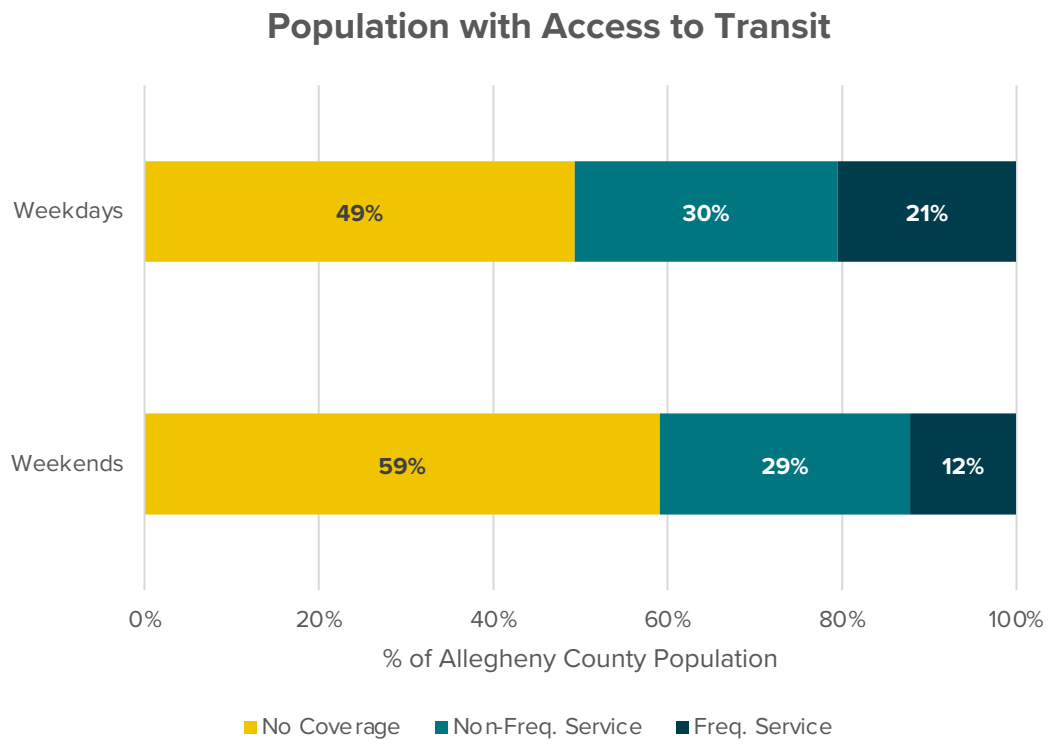


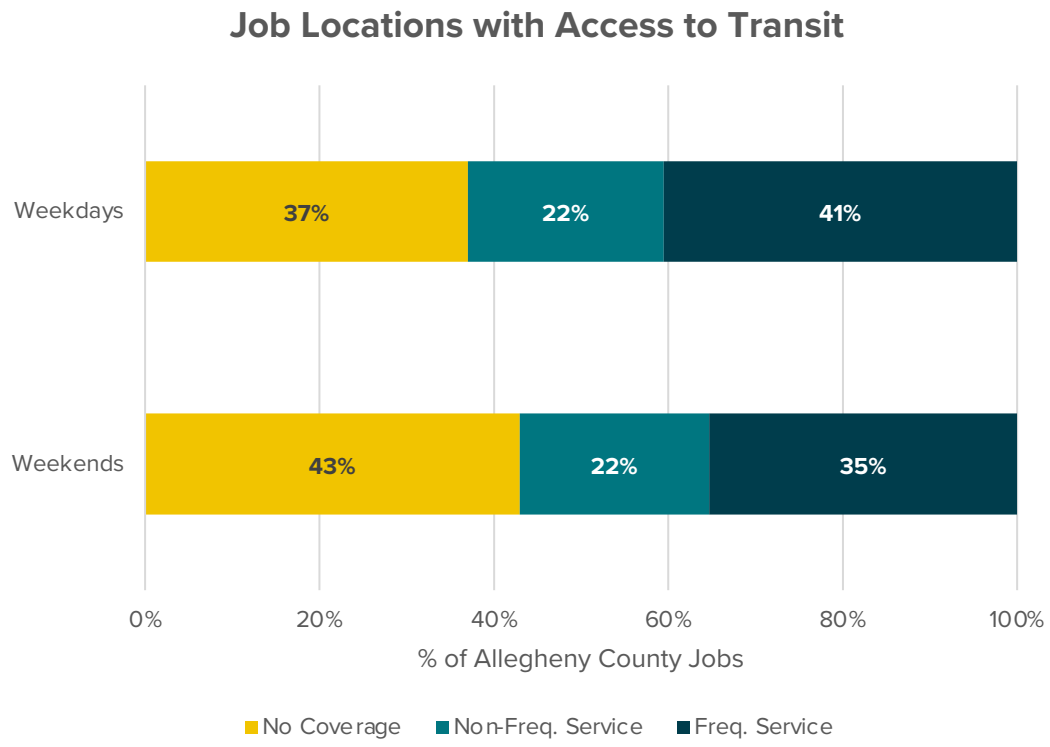
Data Sources (block level):

- Population from U.S. Decennial Census: 2020
- Job locations from U.S. Census Longitudinal Employer Household Dynamics (LEHD): 2022

Access to Transit

A way to look at transit coverage is to measure the percentages of county population and jobs that have access to fixed route transit, frequent fixed route transit or no transit. Frequent transit is defined as 15-minute or better service during the day. The graphs provided below identify the percentages of Allegheny residents and job locations with access to transit. There are about 1.25 million residents in Allegheny County, of which 51% have access to PRT fixed route weekday transit (using ¼ mile for local stops and ½ mile for transit station criteria, based on the current road network). There are also about 687,000 jobs in Allegheny County, of which 63% of job locations have access to PRT fixed route weekday transit.





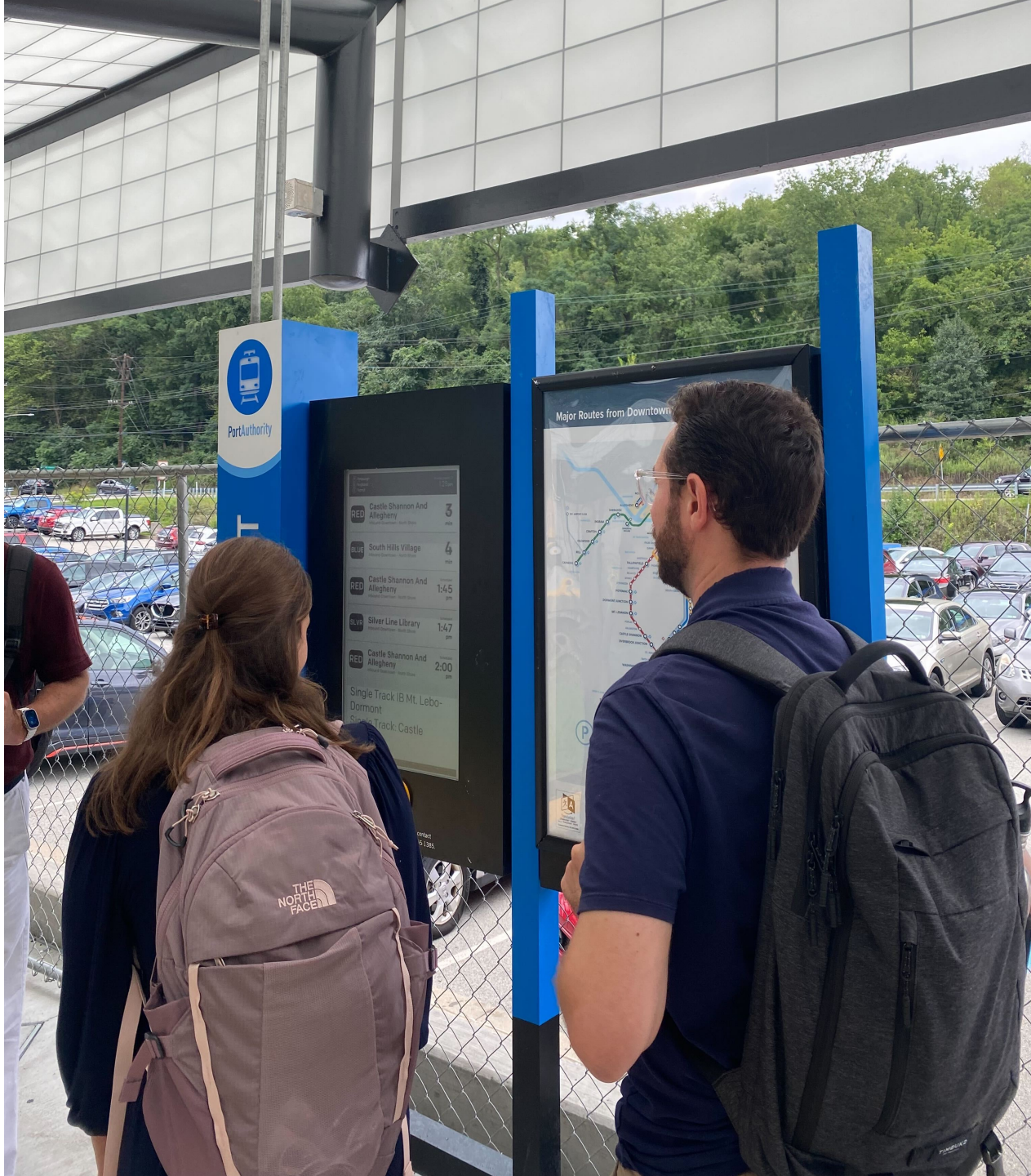
Service and Schedule Performance

System Performance Trends

The following pages describe PRT's systemwide performance trends between 2017 and 2022 as reported in the Federal Transit Administration's National Transit Database (NTD). The key metrics in this section were used to analyze systemwide productivity, efficiency, and effectiveness within the past five years.

The COVID-19 pandemic had a significant impact on ridership levels for transit agencies across the country. Understanding PRT's pre- and post-pandemic performance characteristics is important for the Bus Line Redesign effort in understanding where ridership has and has not rebounded. Key metrics analyzed in this section are:

- Annual Unlinked Passenger Trips
- Annual Operating Costs
- Annual Cost per Revenue Hour
- Annual Cost per Unlinked Passenger Trip
- Passengers per Revenue Hour



System Performance Trends

Average Unlinked Passenger Trips (All Modes)

Across all modes (including the incline and light rail), pre-pandemic PRT averaged over 200,000 average weekday passenger trips, 100,000 Saturday passenger trips, and 60,000 Sunday passenger trips (2017 through 2019).

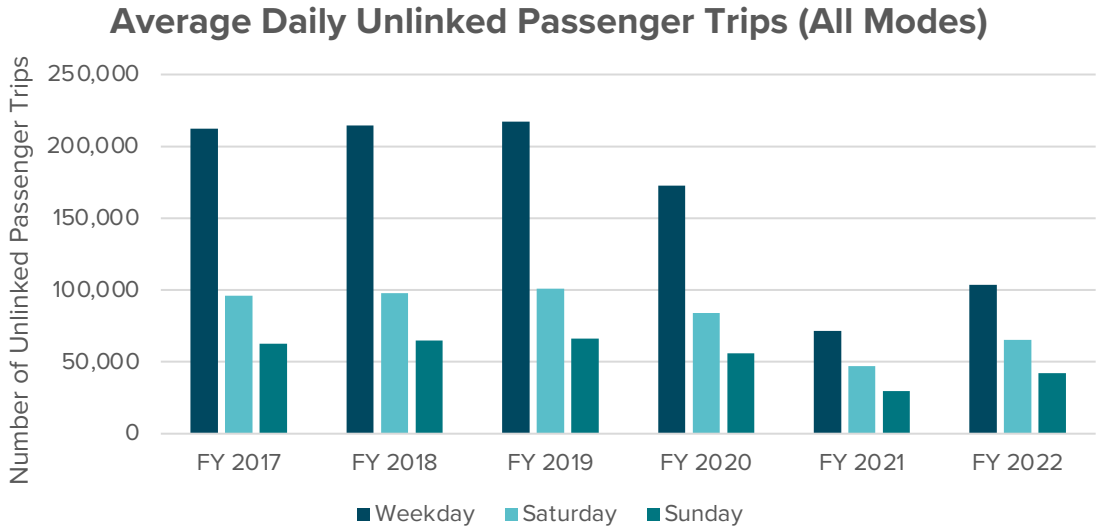
PRT's ridership was dramatically impacted in 2020 due to the global pandemic. Systemwide ridership was lowest in 2021, with a modest rebound in 2022. PRT's change in ridership in 2022, when compared to 2019, is as follows:

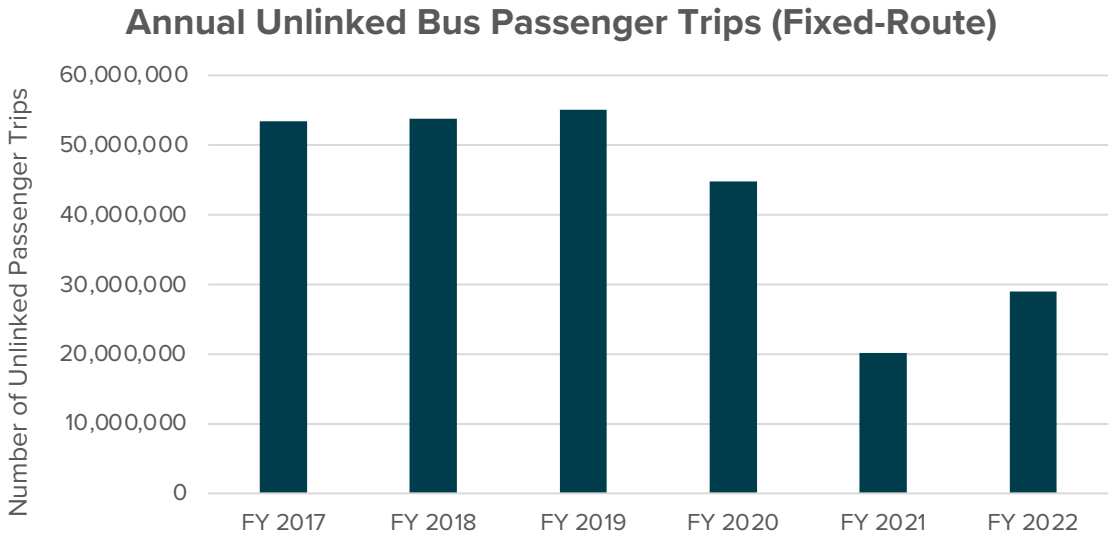
- Weekday – 52% decrease
- Saturday – 35% decrease
- Sunday – 36% decrease

Annual Unlinked Bus Passenger Trips

PRT's fixed-route bus ridership remained relatively consistent between 2017 and 2019, with over 50 million passenger trips annually. In 2020, the number of passengers decreased to around 45 million passenger trips before drastically declining in 2021 to 20 million passenger trips. PRT's 2022 fixed route ridership reached over 30 million trips but is still 47% below 2019 passenger trip levels.

Note: PRT's fiscal year runs from July 1 through June 30

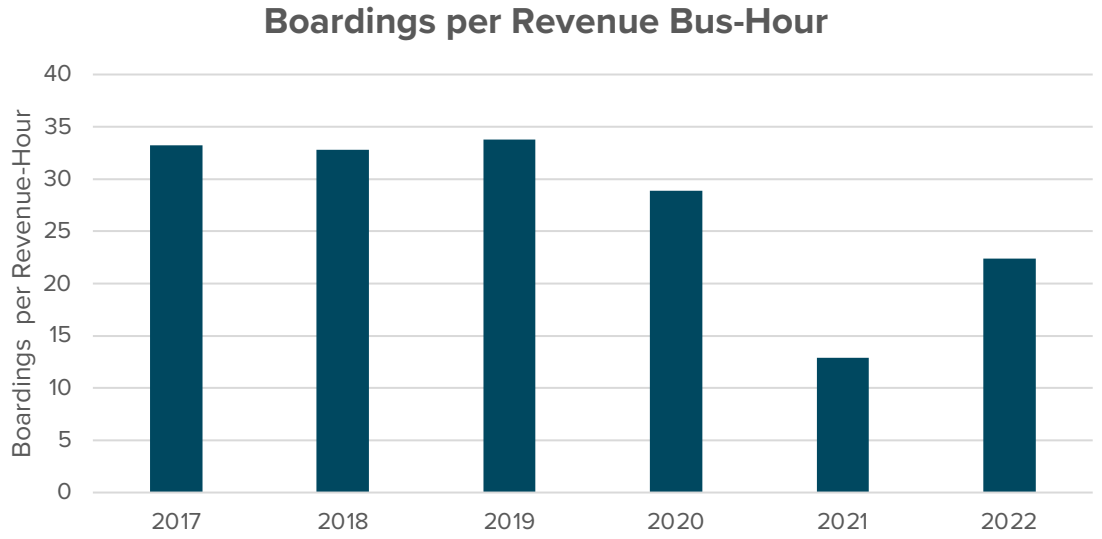




System Performance Trends

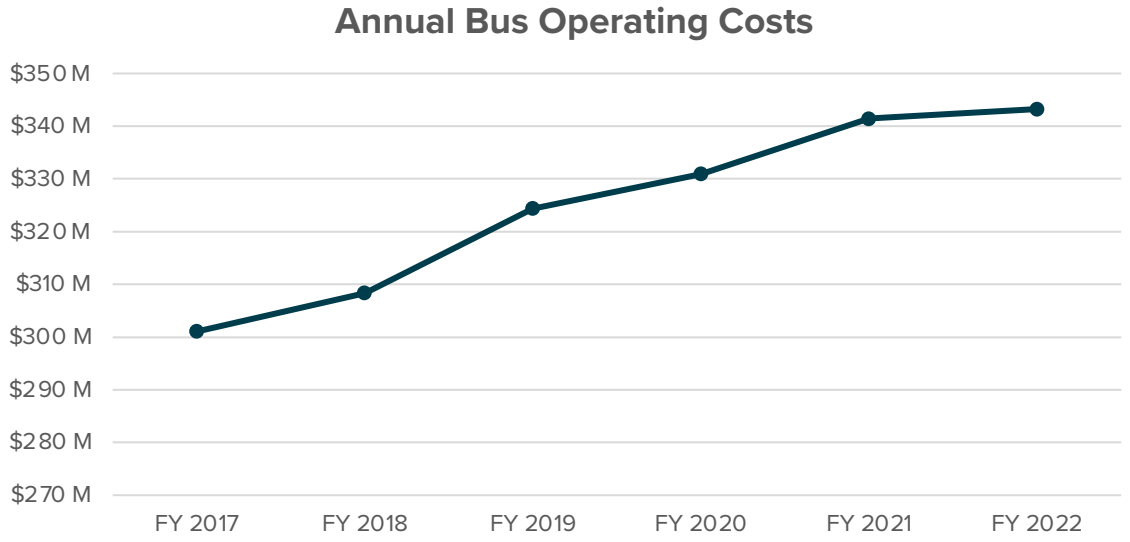
Passengers per Revenue Bus-Hour

Passengers per revenue hour is used as a measure of service effectiveness, or how much the service capacity is being used. Between 2017 and 2020, the number of passengers per revenue hour remained consistently between 30 to 35 passengers per hour. Due to the decline in ridership during the pandemic, in 2021 the number of passengers per revenue hour was down to about 13 passengers per hour. This has rebounded to about 22 passengers per hour, which is still well below pre-pandemic levels.



Annual Bus Operating Costs

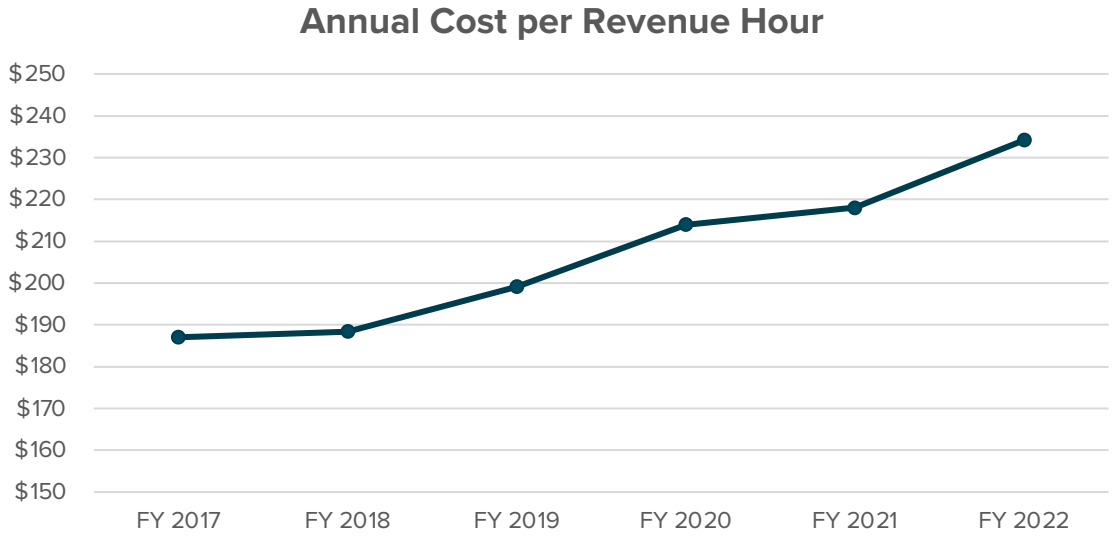
Annual operating cost is the total expense to operate transit service across the PRT service area. Operating costs include vehicles, fuel maintenance, and labor. Since 2017, operating costs for the agency has continued to increase from $300.1 million to $343.2 million. Transit agencies across the country have been experiencing significant cost increases due to inflation, higher labor costs, and fluctuating fuel prices.



System Performance Trends

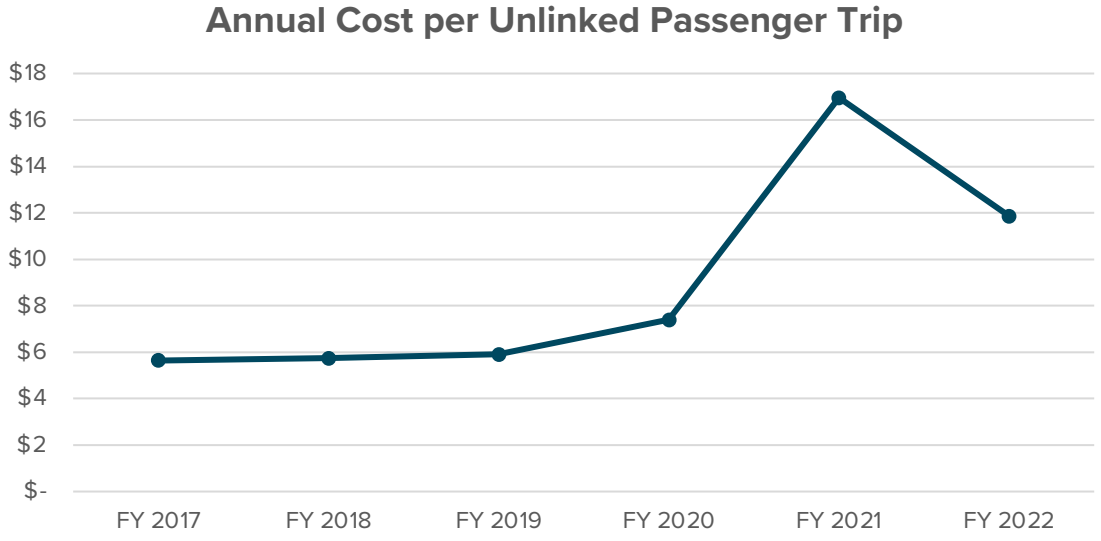
Annual Operations & Maintenance (O&M) Cost per Revenue Bus-Hour

The cost per revenue hour is used to measure cost efficiency, or how well resources are allocated within PRT. Revenue hours is the time that routes are “in-service”, when picking up and dropping off passengers. Revenue bus-hours are inclusive of end-of-line layover/recover time. PRT’s cost per revenue hour was relatively stable in 2017 and 2018 but starting in 2019, began to see significant increases. PRT’s overall operating costs have increased by 5.8% from 2019 to 2022, but PRT’s revenue bus-hours of service have decreased by 10% from 2019 to 2022, resulting in a higher cost per revenue-hour.



Annual O&M Cost per Unlinked Bus Passenger Trip

The cost per unlinked passenger trip (passenger boardings) is used to measure cost effectiveness. A low cost per passenger trip indicates that service is highly cost-effective. This metric was stable from 2017 through 2019 but saw a significant increase in FY 2021 (the height of the pandemic). It has come down in 2022 but is still double what it was in 2019.



Ridership and Productivity by Route

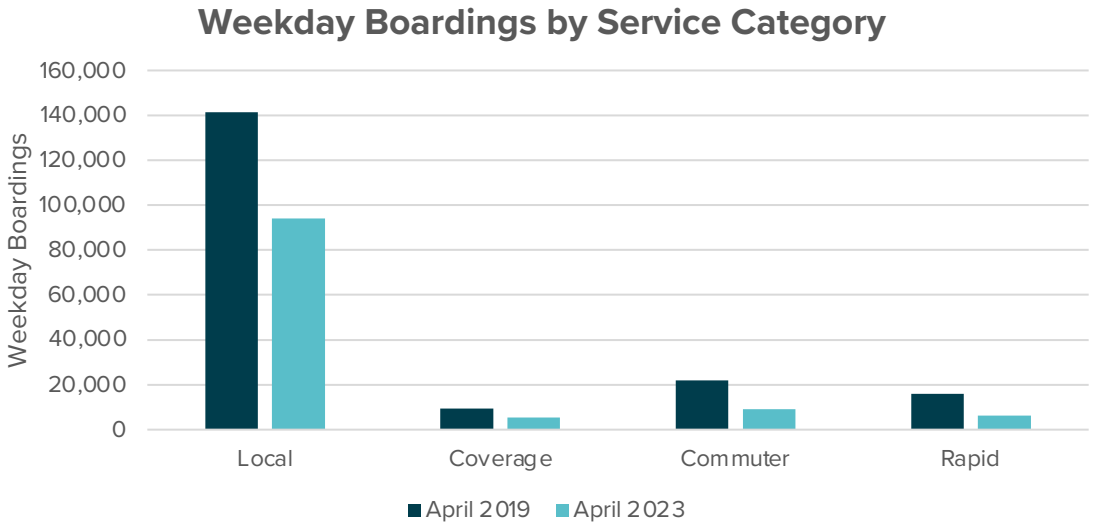
The following pages present ridership and route productivity for all PRT routes by service category. 2019 and 2022 ridership and route productivity are compared, allowing for an assessment of the extent to which post-pandemic ridership has recovered by service category and route.

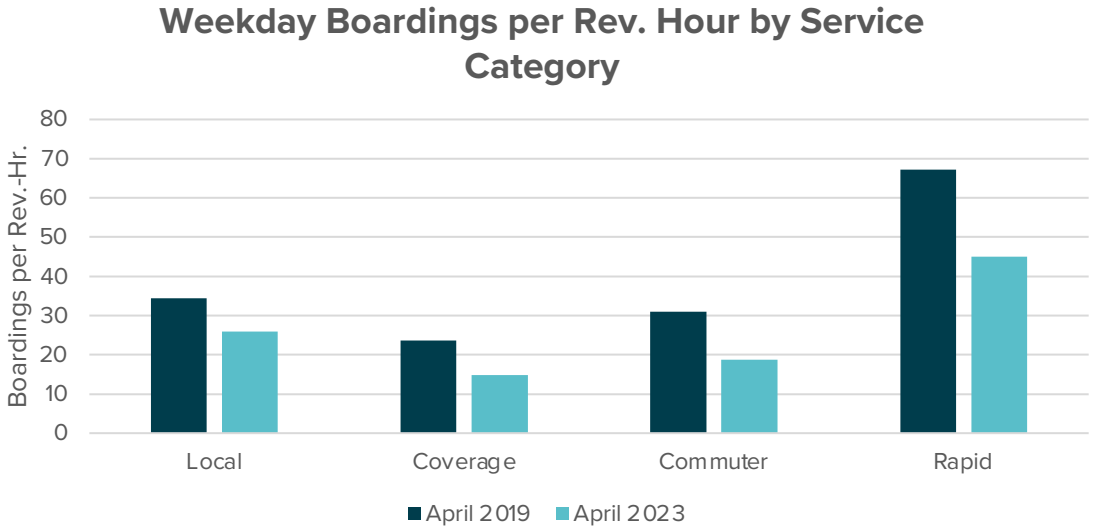
Ridership and Productivity by Route

Service Category Performance

Ridership had dropped across PRT's bus service categories. Overall, 2023 weekday ridership is 33 percent lower than in 2019. Commuter and Rapid route ridership has dropped more significantly than this average, with 2023 ridership that is more than 50 percent below 2019 levels. In 2019, commuter bus ridership accounted for 12 percent of PRT's total weekday bus ridership. This has now dropped to 8 percent of PRT's total weekday bus ridership.

Overall system ridership productivity (ridership per revenue hour) has dropped by 28 percent. Commuter bus ridership productivity has dropped the most—a 40 percent decrease over 2019 levels.





Revenue-hours defined as in-service plus layover time

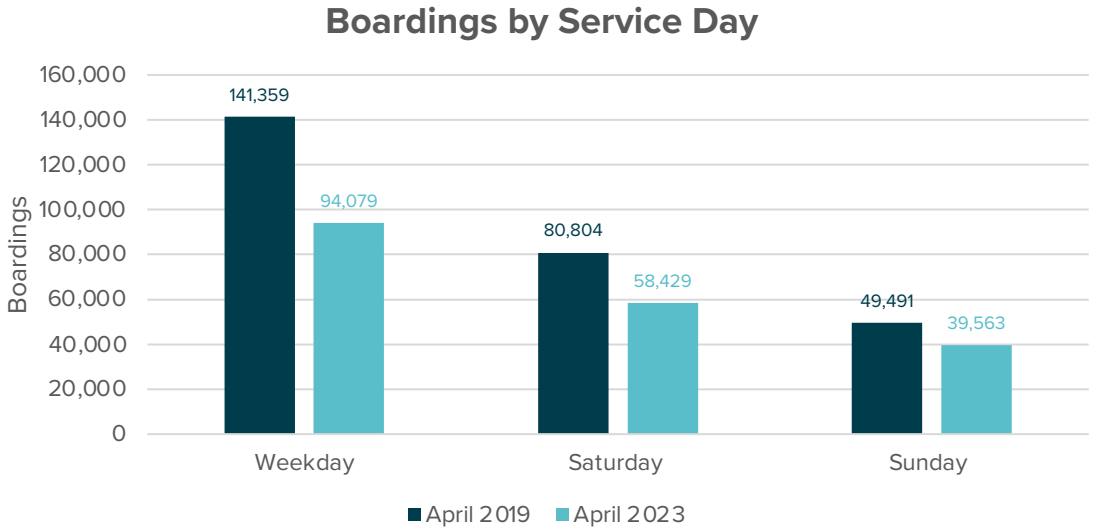
Ridership and Productivity by Route

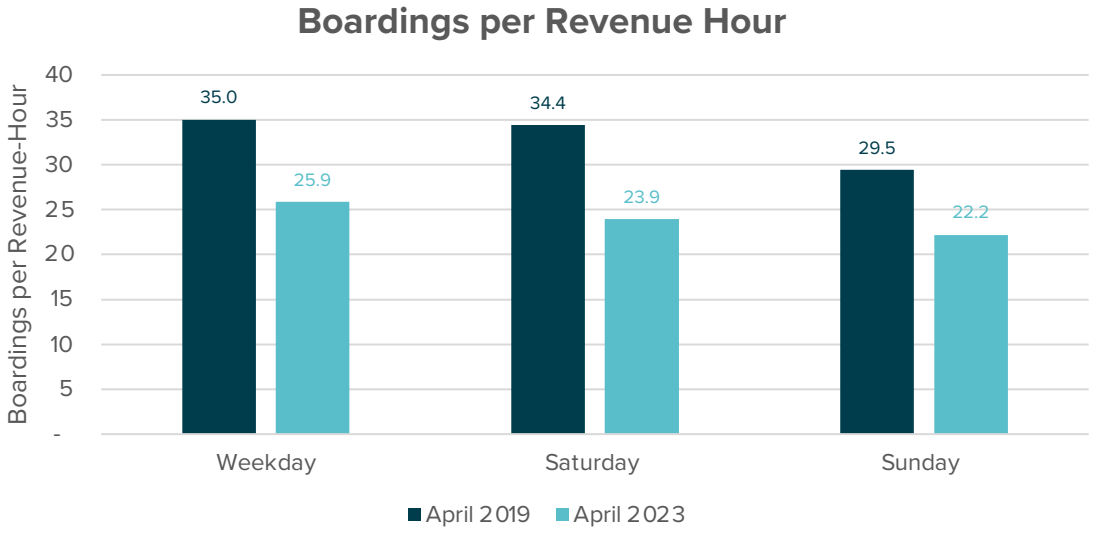
Local Routes

There are 56 routes labeled as local routes by PRT. Forty-eight (48) of 56 routes operate to/from Downtown. Route 51 (Carrick) operates at an average 10-minute or better peak and midday service level. There are ten other routes that operate at 15-minute or better peak period frequencies, with 20-to-25-minute midday frequencies. The 61 and 71 series all operate at 15-minute peak and 20-minute midday service frequencies, resulting in very frequent service when the branches converge on the trunks. There are an additional 13 local routes that operate at 30-minute or better all-day frequencies on weekdays.

Overall, weekday ridership has declined by 33 percent. There has been less of a decline on weekends. Overall ridership productivity has also declined from approximately 40 riders per hour to just over 25 riders per hour. Saturday and Sunday ridership productivity has declined to 24 and 22 riders per hour, respectively.

The following page presents weekday ridership and ridership productivity for all local routes.

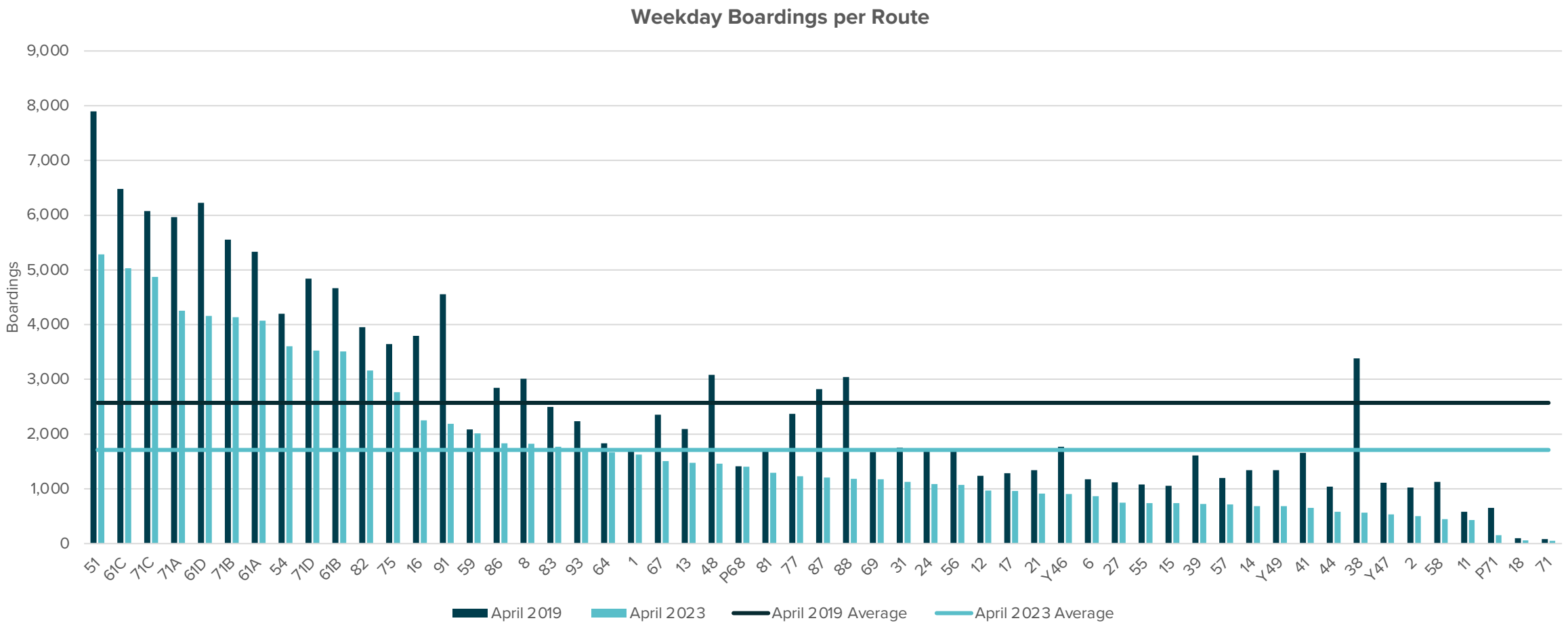




Revenue-hours defined as in-service plus layover time

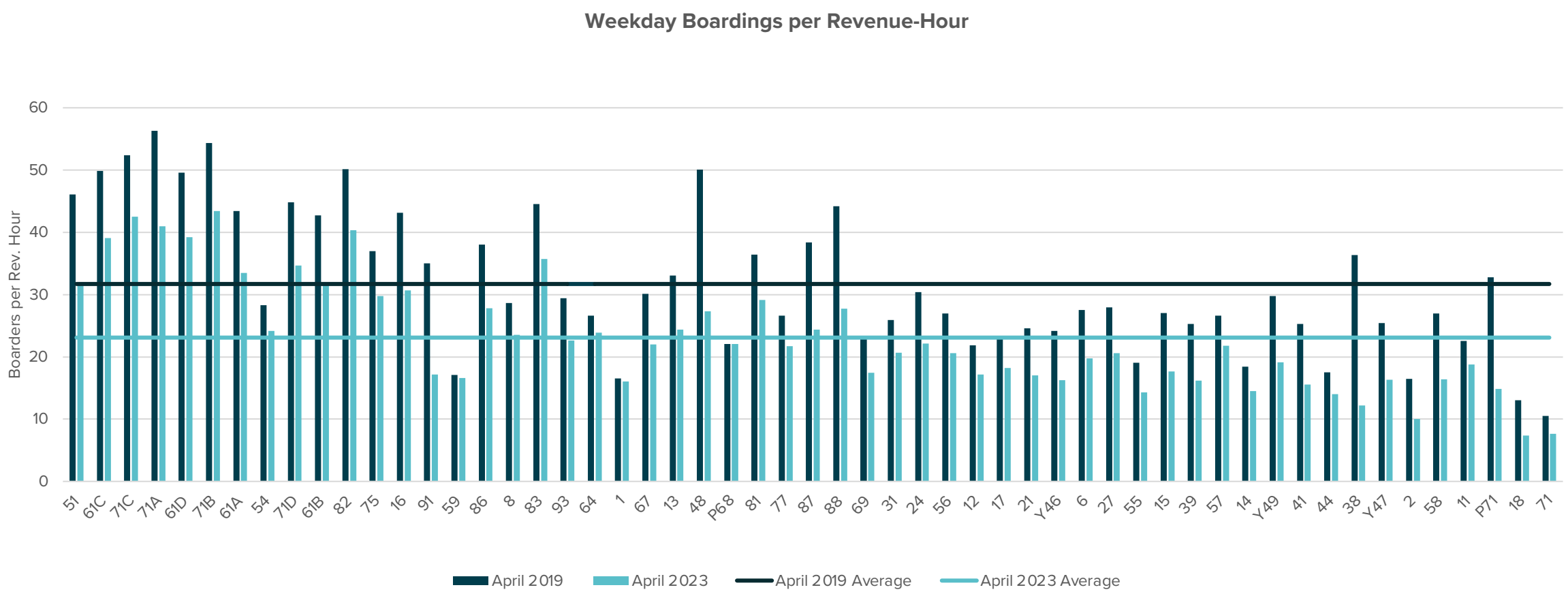
Ridership and Productivity by Route

Local Routes



Ridership and Productivity by Route

Local Routes



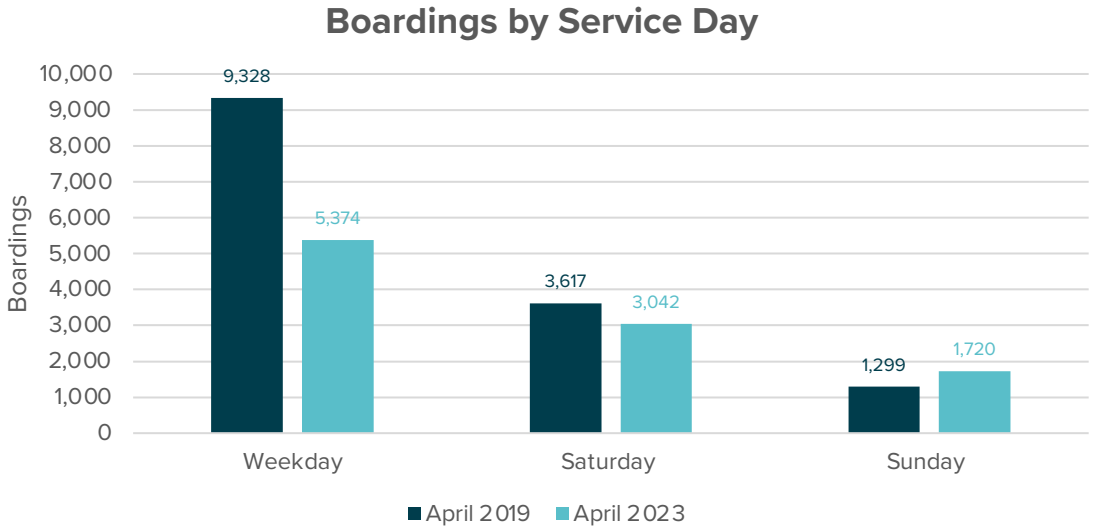
Ridership and Productivity by Route

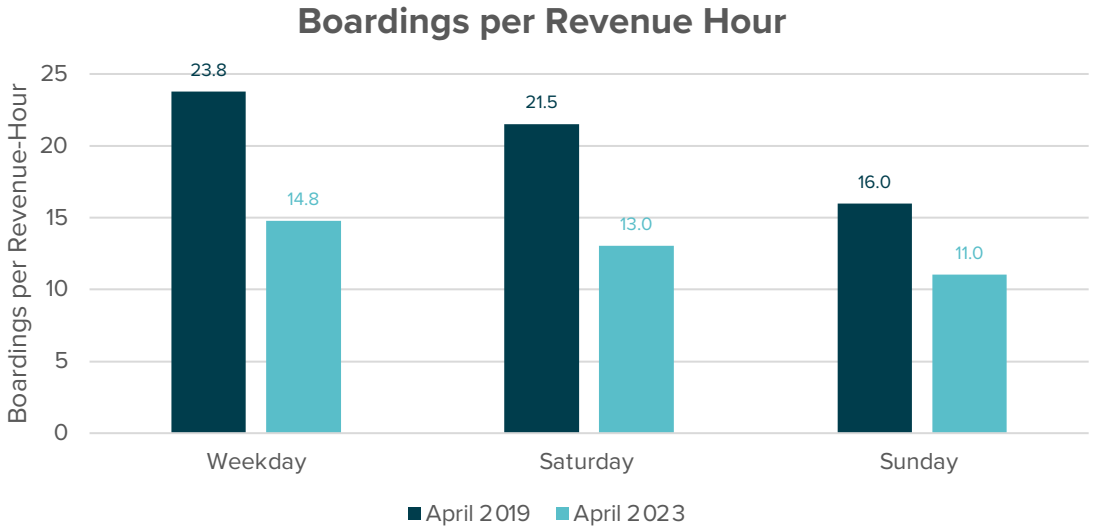
Coverage Routes

Twelve routes are labeled as coverage routes, with nine of the twelve routes operating to/from Downtown. Weekday service frequencies on these routes range from 30 to 65 minutes in the peak and midday periods. All twelve routes operate on weekends with frequencies that range from 30 to 80 minutes on Saturdays and 60 to 90 minutes on Sundays.

Total weekday ridership has decreased by 42 percent. There has been less of a decline on Saturdays and a slight increase on Sundays. Overall weekday ridership productivity has also declined from approximately 27 riders per hour to just under 15 riders per hour. Saturday and Sunday ridership productivity has also seen an overall decline in ridership, but at a lower percentage loss than weekday ridership.

The following page presents weekday ridership and ridership productivity for all coverage routes.

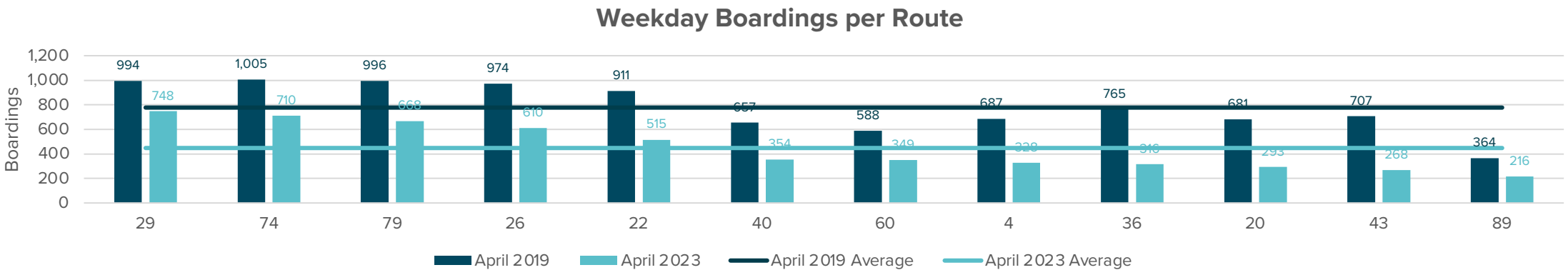


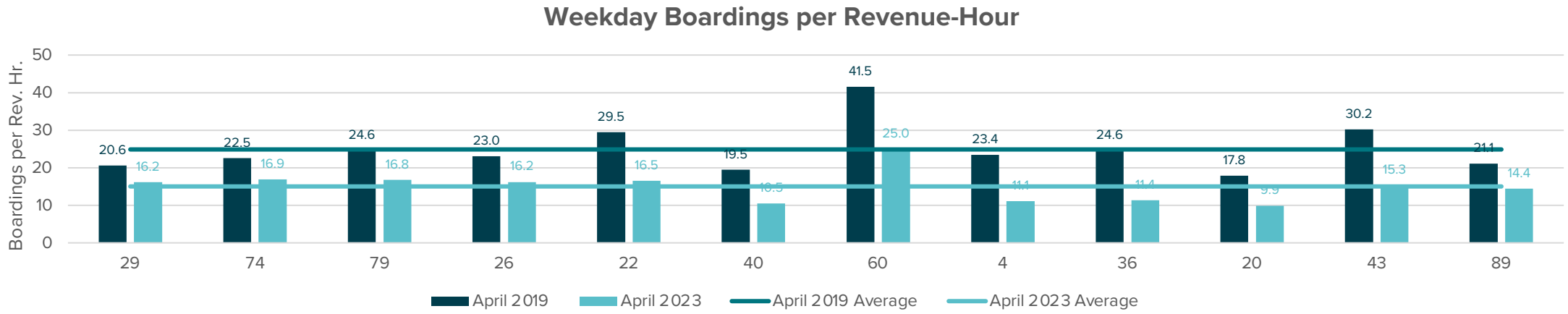


Revenue-hours defined as in-service plus layover time

Ridership and Productivity by Route

Coverage Routes





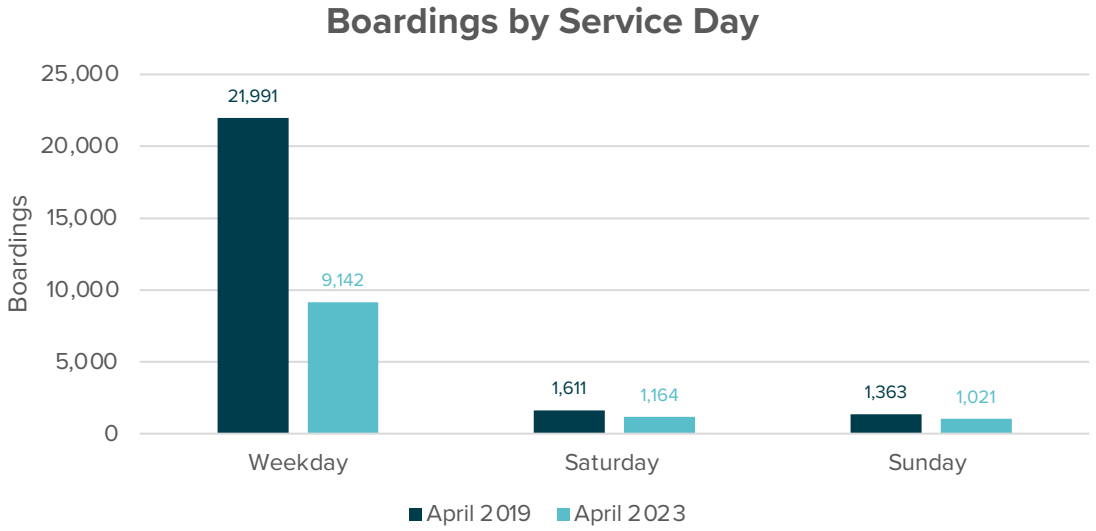
Ridership and Productivity by Route

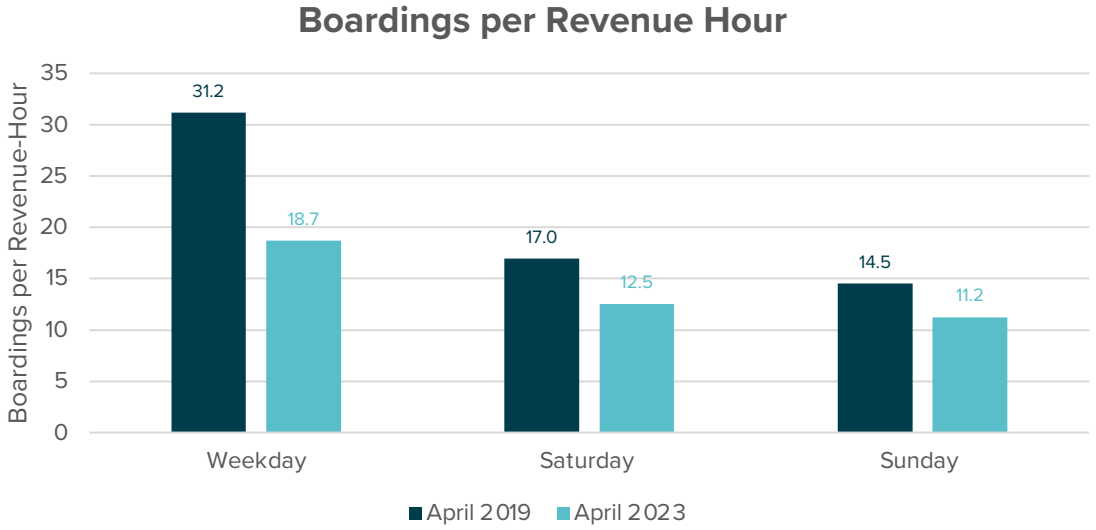
Commuter Routes

There are 25 routes labeled as commuter routes by PRT. All but one route (P3) operates to/from Downtown. Nearly all of these routes operate in the peak periods only. Exceptions are Route 28X (Airport), P3 (East Busway-Oakland) and P78 (Oakmont Flyer). There is only one commuter route that operates on weekends: Route 28X. Service frequencies range from only a few trips in each peak period in the peak direction to 15-minute frequencies. A large majority of the commuter routes operate on one of PRT's busways, resulting in high levels of service along PRT's busways.

Total weekday ridership has declined by 58 percent on commuter routes. Overall weekday ridership productivity has also declined from approximately 36 riders per hour to just under 19 riders per hour (a 47% decrease).

The following page presents weekday ridership and ridership productivity for all commuter routes.

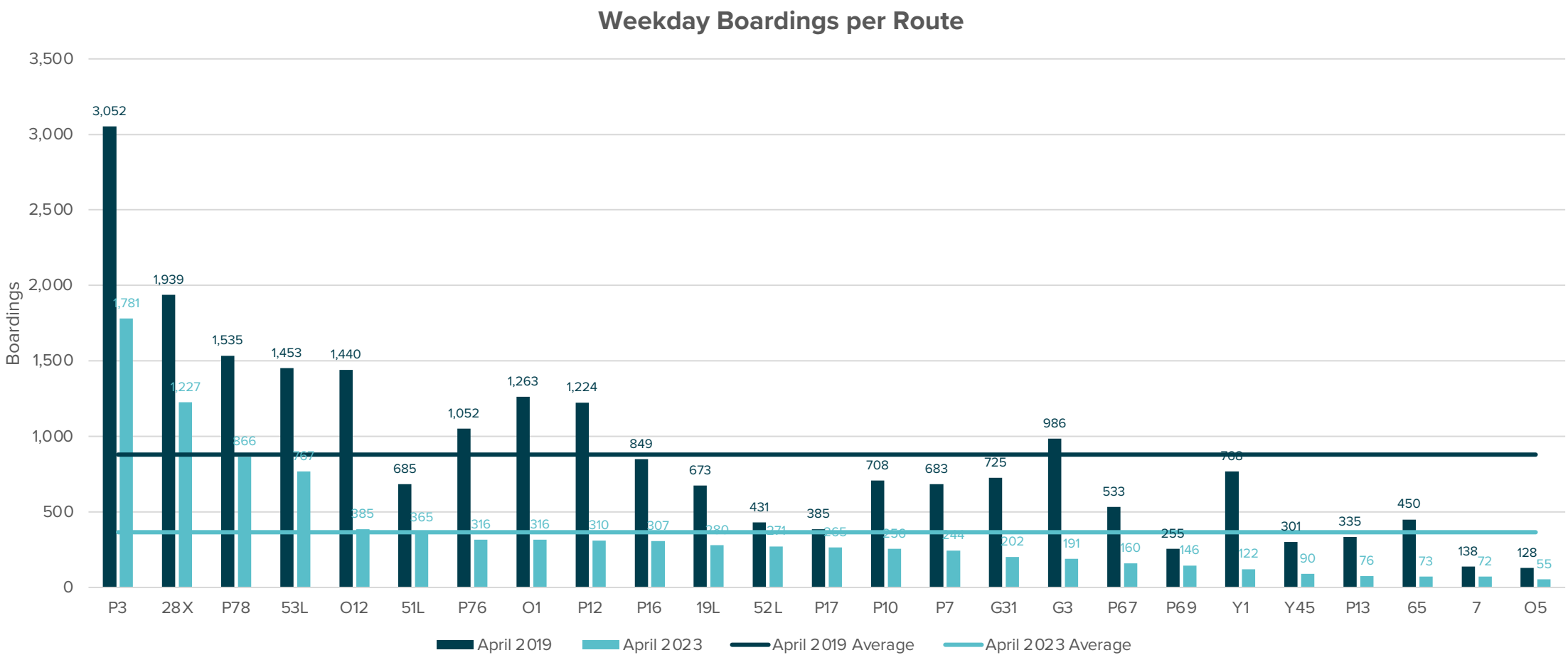




Revenue-hours defined as in-service plus layover time

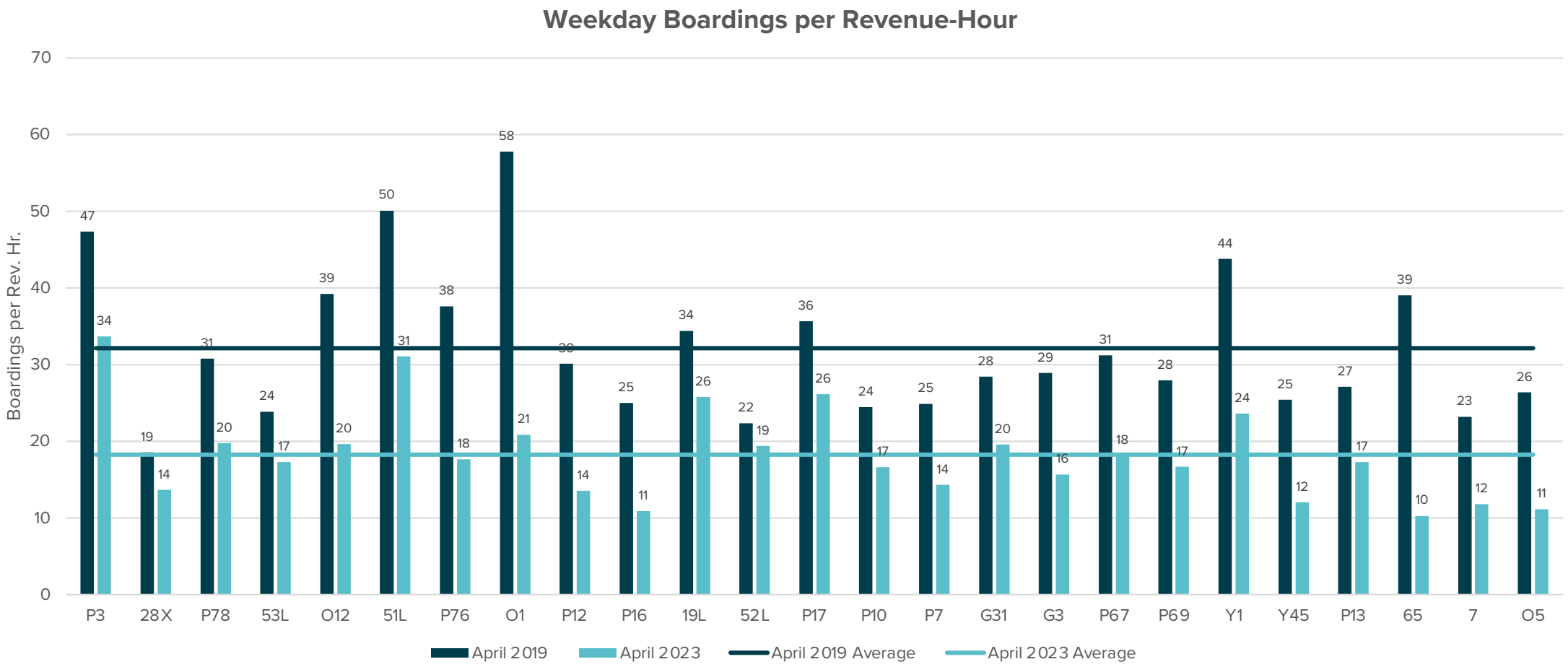
Ridership and Productivity by Route

Commuter Routes



Ridership and Productivity by Route

Commuter Routes



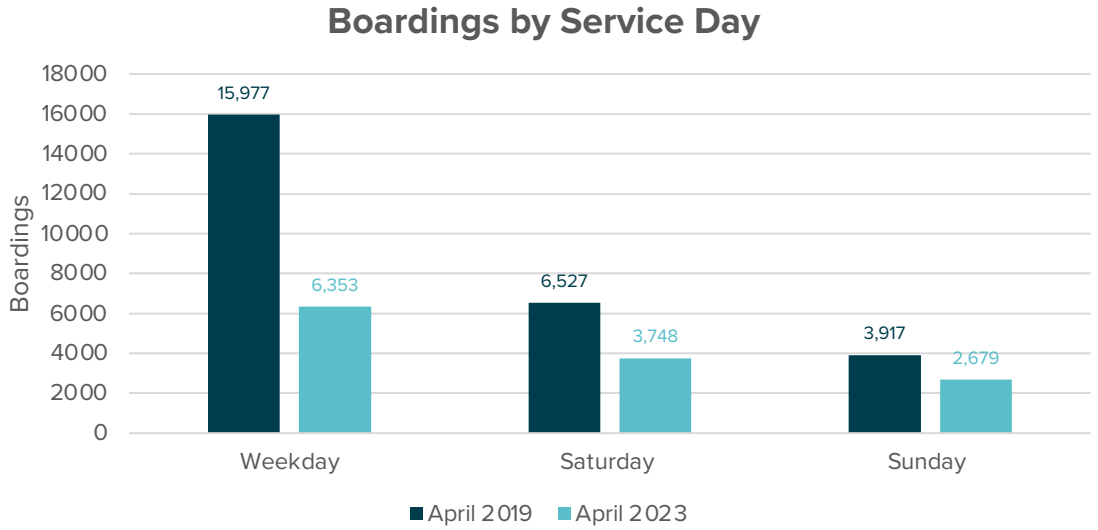
Ridership and Productivity by Route

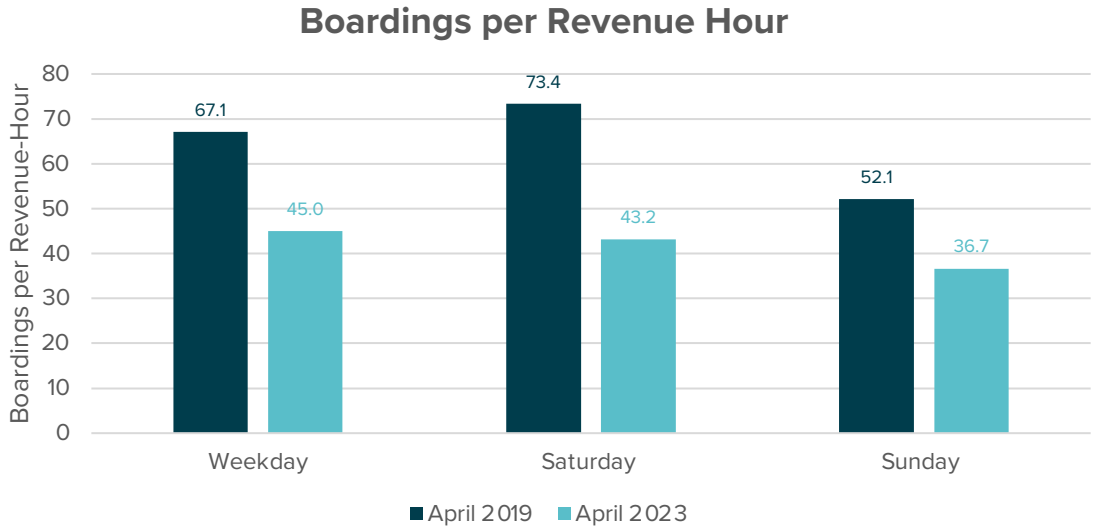
Rapid Routes

There are three designated rapid routes in the April ridership data—P1 and P2 on the MLK Jr. East Busway and G2 on the West Busway. Route P1 operates at 10-minute peak and 15-minute midday frequencies. Route P2 operates at 15-minute midday frequencies only in the midday to offset the loss of all midday service on commuter routes that operate on the MLK Jr. East Busway. Route G2 operates at 20-minute all-day weekday frequencies. Note that Route P2 service was recently folded into P1 service.

Total weekday ridership has declined by 60 percent on Rapid routes. There has been less of a decline on weekends. Overall weekday ridership productivity has also declined from 82 to 45 riders per hour (a 19 percent decrease). Current weekend ridership productivity is slightly lower than on weekdays.

The following page presents weekday ridership and ridership productivity for all commuter routes.

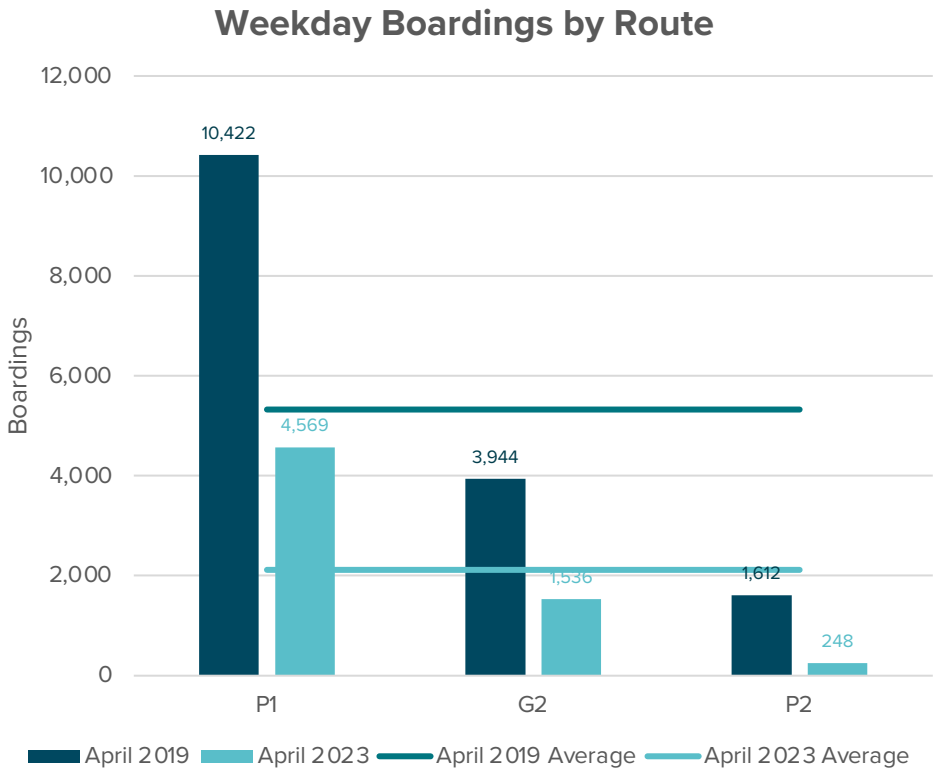


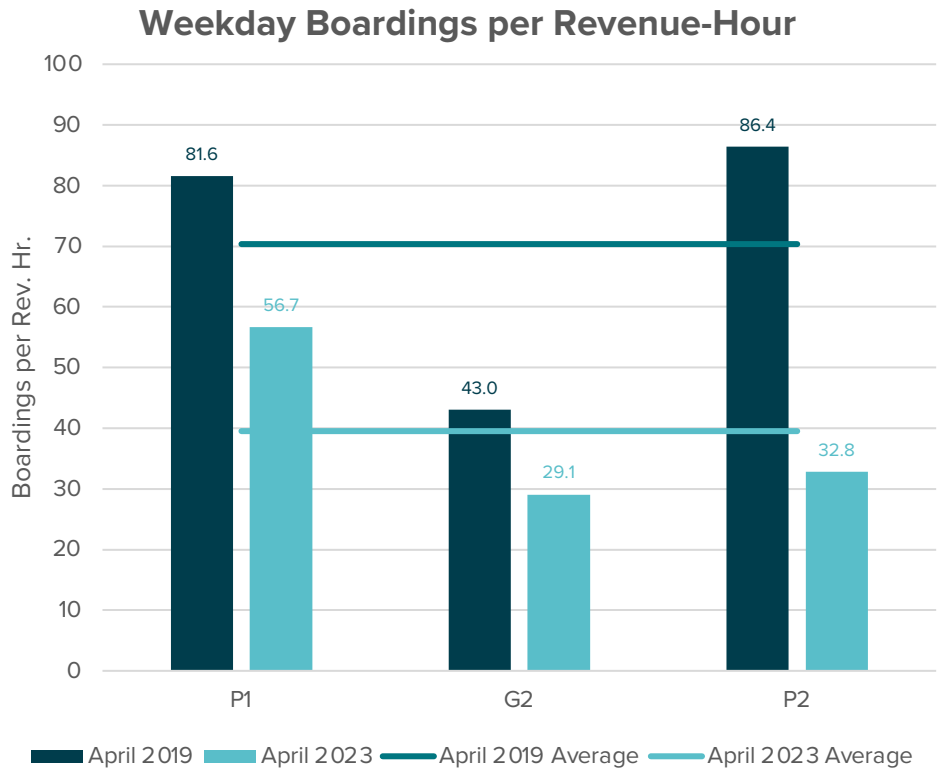


Revenue-hours defined as in-service plus layover time

Ridership and Productivity by Route

Rapid Routes



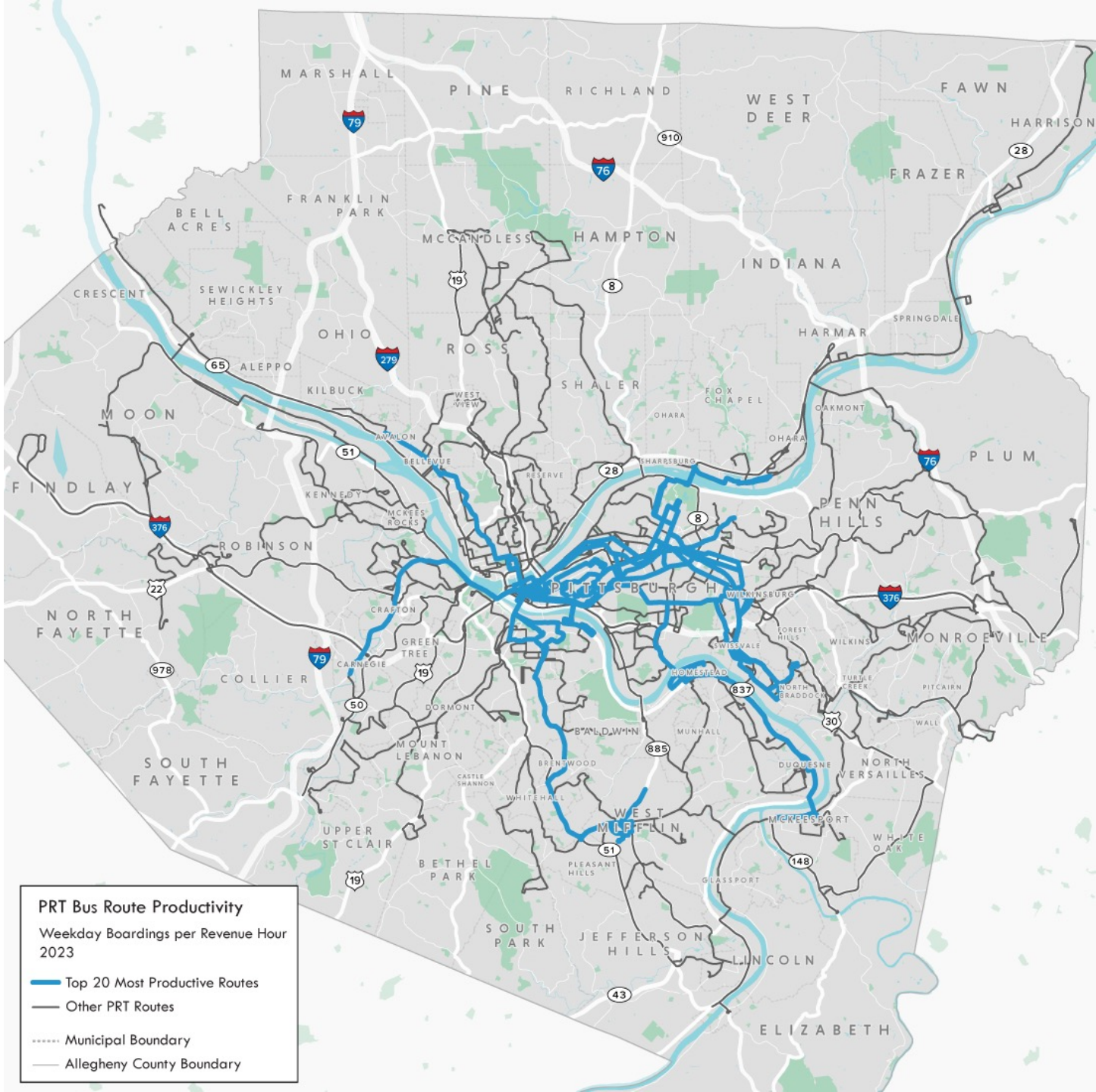


High Productivity Routes

As shown in the previous few pages, PRT's routes vary greatly in terms of productivity, even within the same category. Looking at PRT's 20 most productive routes can help highlight the factors that make service more effective:

- Routes that serve higher density neighborhoods in Pittsburgh's east side and the near east suburbs
- Routes that run mostly along the busways
- Rapid and Local routes, primarily ones with higher frequencies and longer spans
- Routes with relatively direct alignments

Route	Category	Weekday Boardings per Revenue Hour	Route	Category	Weekday Boardings per Revenue Hour
P1	Rapid	56.66	**61A**	Local	33.47
71B	Local	43.41	**P2**	Rapid	32.83
71C	Local	42.51	**61B**	Local	31.83
71A	Local	40.98	**51**	Local	31.43
82	Local	40.33	**51L**	Commuter	31.07
61D	Local	39.22	**16**	Local	30.69
61C	Local	39.06	**75**	Local	29.76
83	Local	35.70	**81**	Local	29.11
71D	Local	34.67	**G2**	Rapid	29.07
P3	Commuter	33.70	**86**	Local	27.78

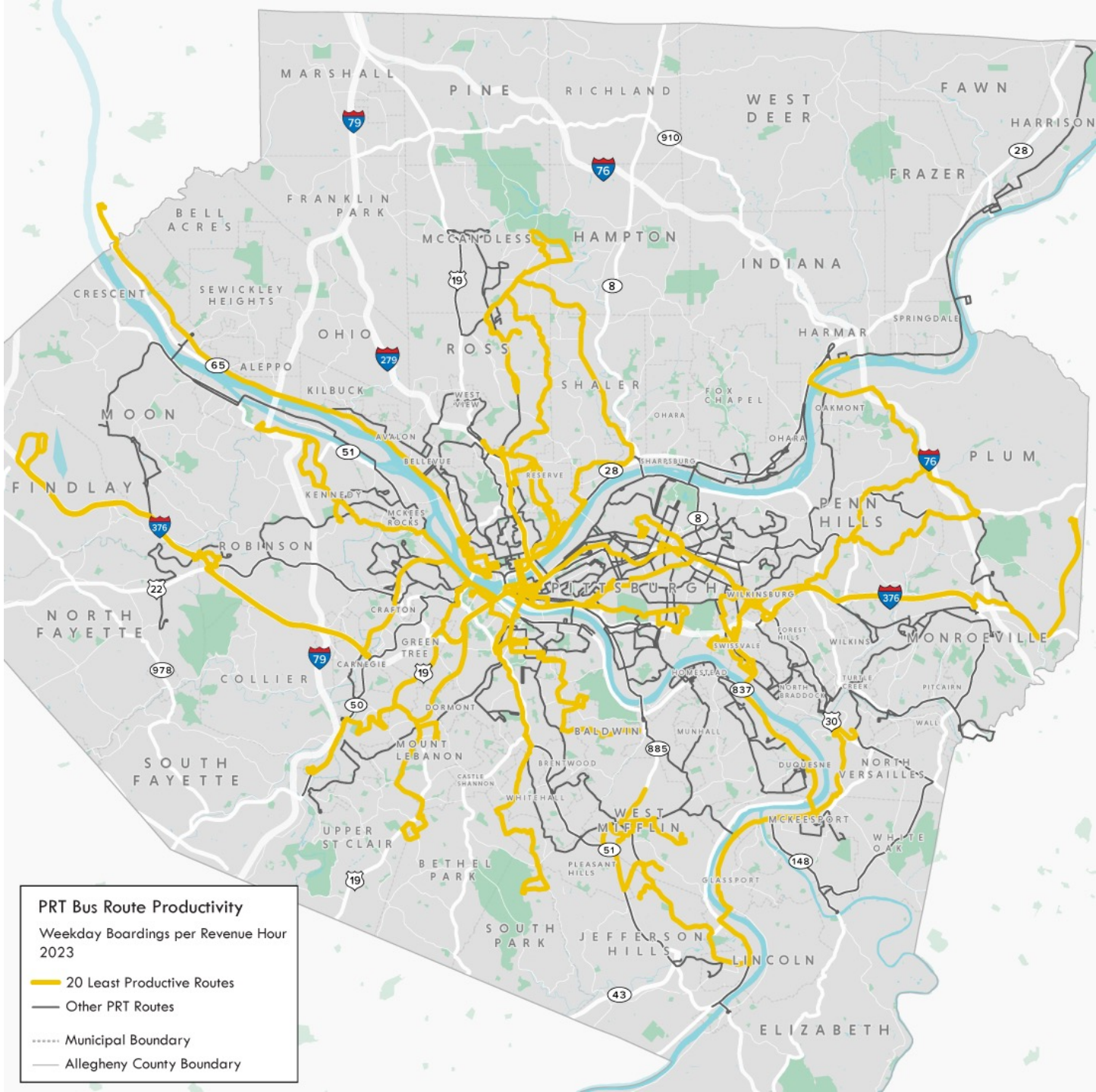


Low Productivity Routes

Conversely, looking at the 20 least productive routes can help show what types of services may not be as effective:

- Commuter and coverage routes, primarily.
- Long routes that serve farther out suburbs.
- Routes with indirect alignments that circulate within neighborhoods
- Routes that only run at peak times.

Route	Category	Weekday Boardings per Revenue Hour	Route	Category	Weekday Boardings per Revenue Hour
18	Local	7.40	**7**	Commuter	11.80
71	Local	7.62	**Y45**	Commuter	12.05
20	Coverage	9.92	**38**	Local	12.21
2	Local	10.01	**P12**	Commuter	13.52
65	Commuter	10.26	**28X**	Commuter	13.65
40	Coverage	10.52	**44**	Local	14.02
P16	Commuter	10.90	**55**	Local	14.28
4	Coverage	11.10	**P7**	Commuter	14.35
O5	Commuter	11.14	**89**	Coverage	14.39
36	Coverage	11.39	**14**	Local	14.53

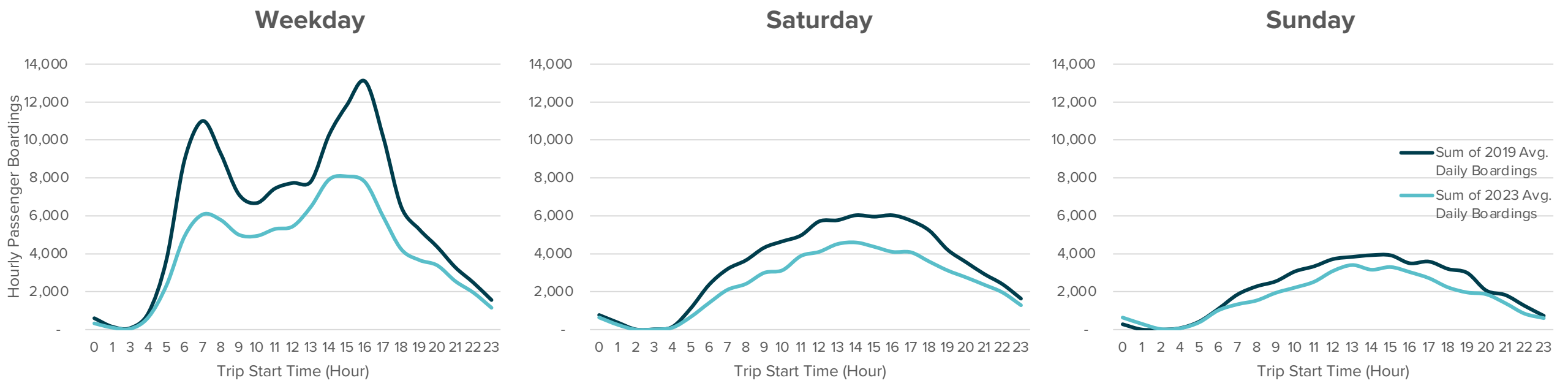


Ridership by Time of Day

As illustrated on the last several pages, there have been significant ridership declines across PRT bus services. The following charts illustrate how ridership has changed by time of day for each service classification (local, coverage, commuter and Rapid).

Local Routes

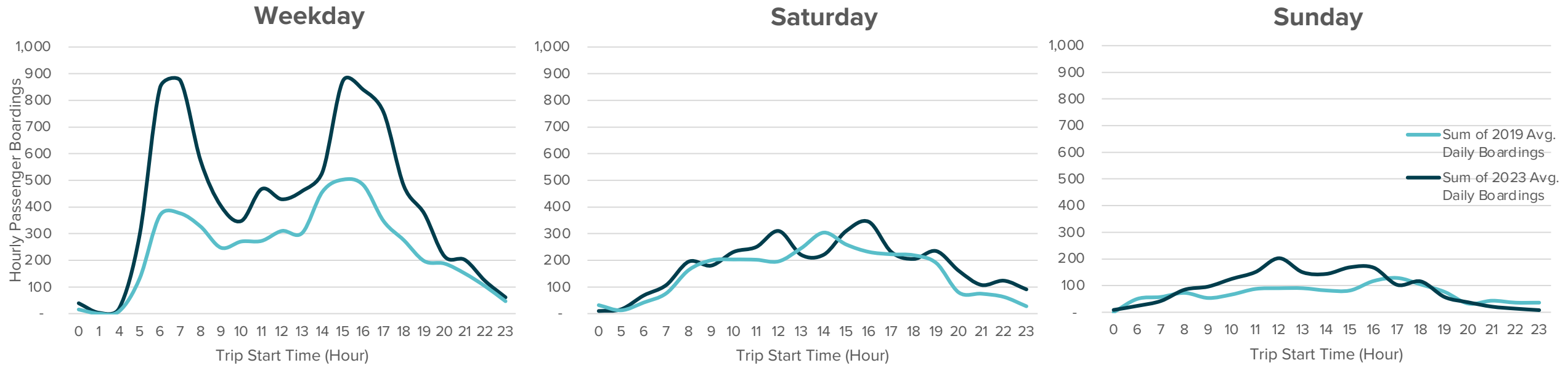
2023 hourly ridership characteristics are similar to pre-pandemic characteristics, just lower; however, one notable change is on weekdays. There appears to be a more significant drop in a.m. and p.m. peak period ridership, with less of a drop in the midday. Ridership in the p.m. peak period is highest in 2023, which was also the case in 2019.



Ridership by Time of Day

Coverage Routes

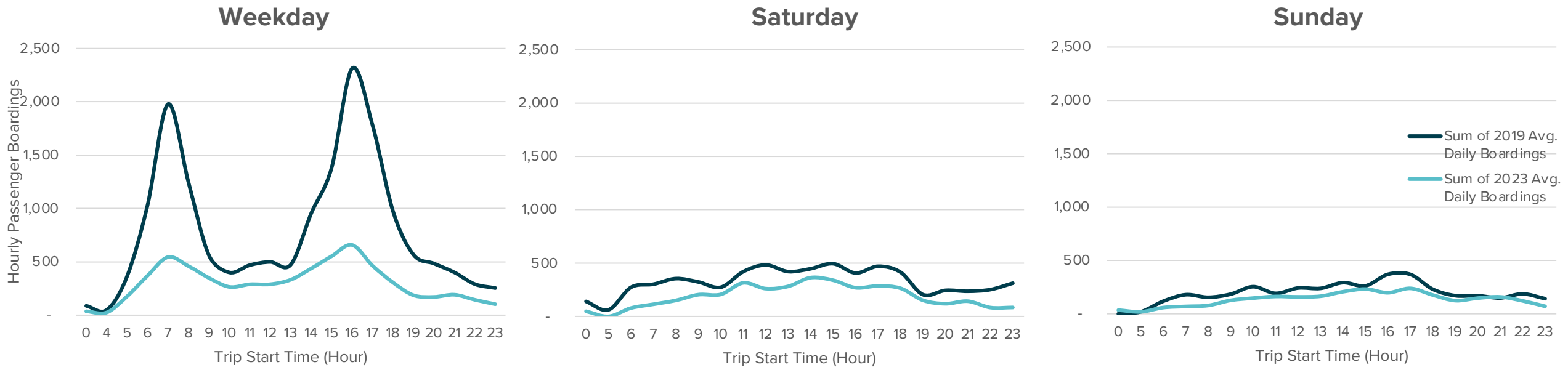
Coverage routes had strong weekday peaking characteristics in 2019 that were like those observed with local routes. The 2023 ridership data indicates that more significant ridership losses have occurred in the peak periods, particularly in the a.m. peak. This trend is similar to what was observed with local routes. Saturday ridership trends are not substantially different between the two observed years, other than the peak occurring a bit earlier than in 2019 (2:00 pm rather than 4:00 p.m.). Sunday hourly ridership is higher for 2023 than it was for 2019.



Ridership by Time of Day

Rapid Routes

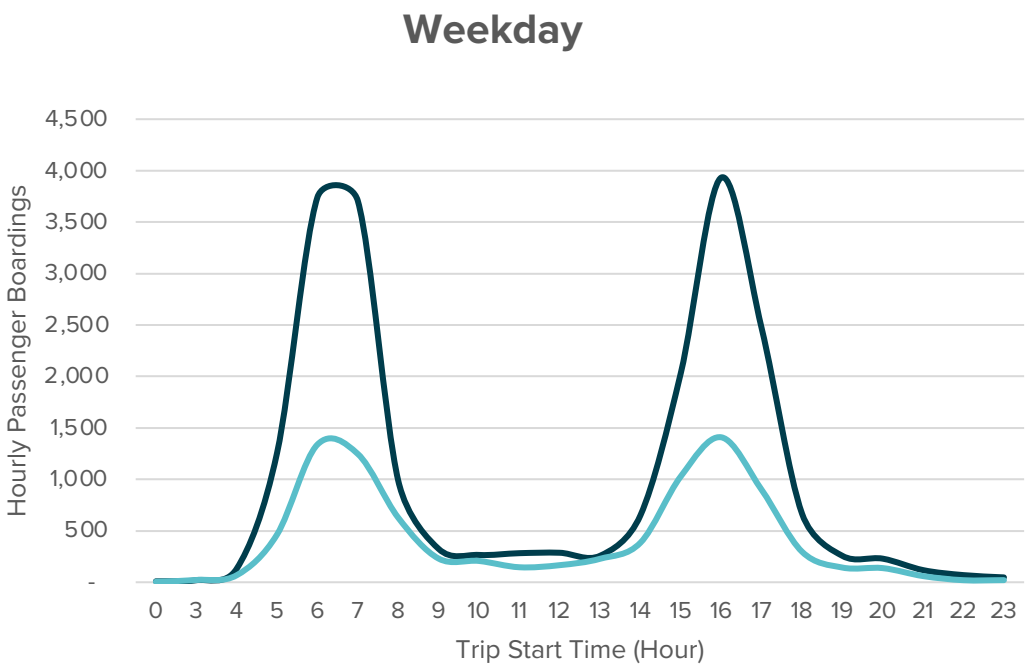
Rapid routes have also seen significant declines in weekday peak period ridership with less loss in the midday period. Year 2019 data showed a stronger p.m. peak period. Year 2023 data indicates that the p.m. peak period is just slightly higher than in the a.m. peak period. Weekend ridership trends are similar between the two years.



Ridership by Time of Day

Commuter Routes

Commuter routes have seen a strong decline in weekday peak period ridership. Few commuter routes offer midday service. Ridership during the midday has not changed significantly. There is only one defined commuter route that operates on weekends – Route 28X. Weekend ridership on Route 28X tends to build to late afternoon before beginning to diminish. Hourly ridership trends on Route 28X have also not changed significantly. That route has seen , Saturday and Sunday ridership is like pre-pandemic levels.



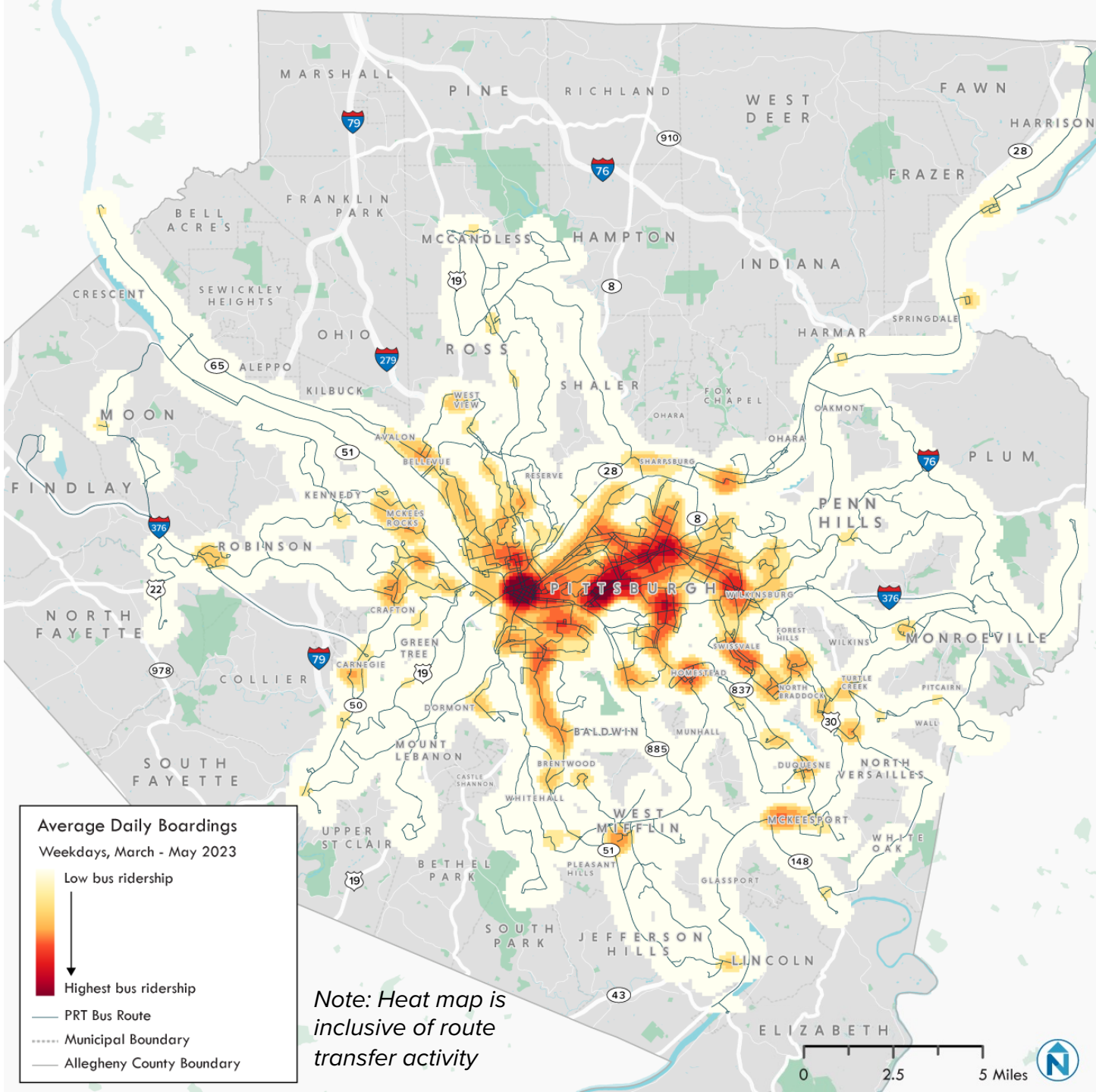
Saturday and Sunday ridership graphs not included for only Route 28X operates on weekends.

Ridership by Stop

Weekday Ridership Activity

The adjacent heat map illustrates ridership activity within the PRT service area. Ridership activity is heaviest in Downtown Pittsburgh, followed by the Oakland corridor and along the Fifth Avenue corridor. Other neighborhoods, municipalities and corridors with high ridership activity include:

- Squirrel Hill neighborhood
- Wilkinsburg area
- South Side Flats
- Homestead area
- Swissvale area
- The Waterworks area
- Penn Avenue corridor
- Brownsville Road corridor
- Lincoln Avenue corridor

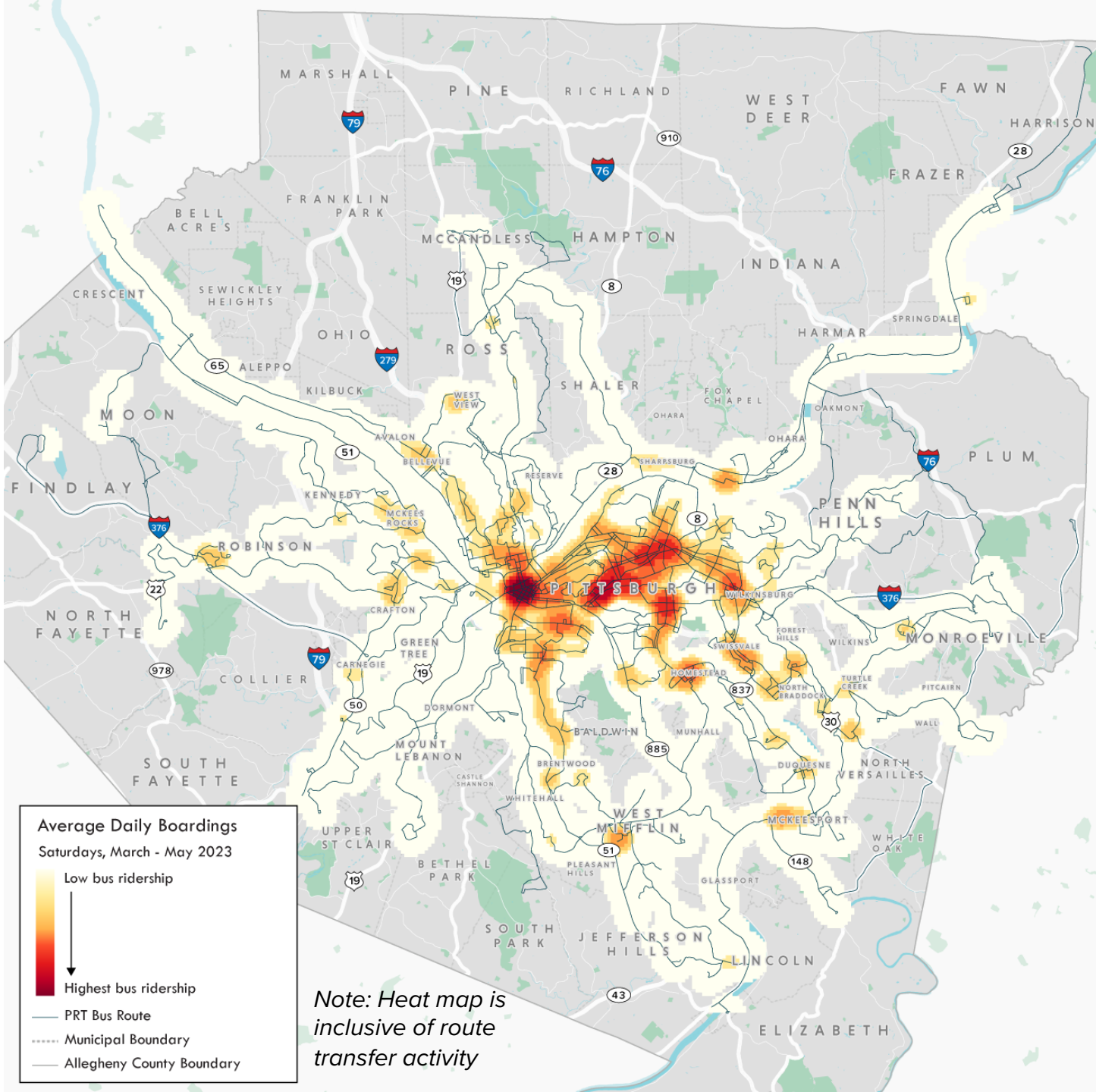


Ridership by Stop

Saturday Ridership Activity

The adjacent heat map illustrates ridership activity within the PRT service area on Saturdays. Ridership activity is slightly lower than on an average weekday, and some of the commuter routes from outlying communities do not run at all. However, ridership is concentrated in many of the same areas as during the week:

- Downtown Pittsburgh
- Squirrel Hill neighborhood
- Wilkinsburg area
- South Side Flats
- Allegheny Center/North Side
- Homestead area
- Swissvale area
- Penn Avenue corridor
- Brownsville Road corridor
- Lincoln Avenue corridor

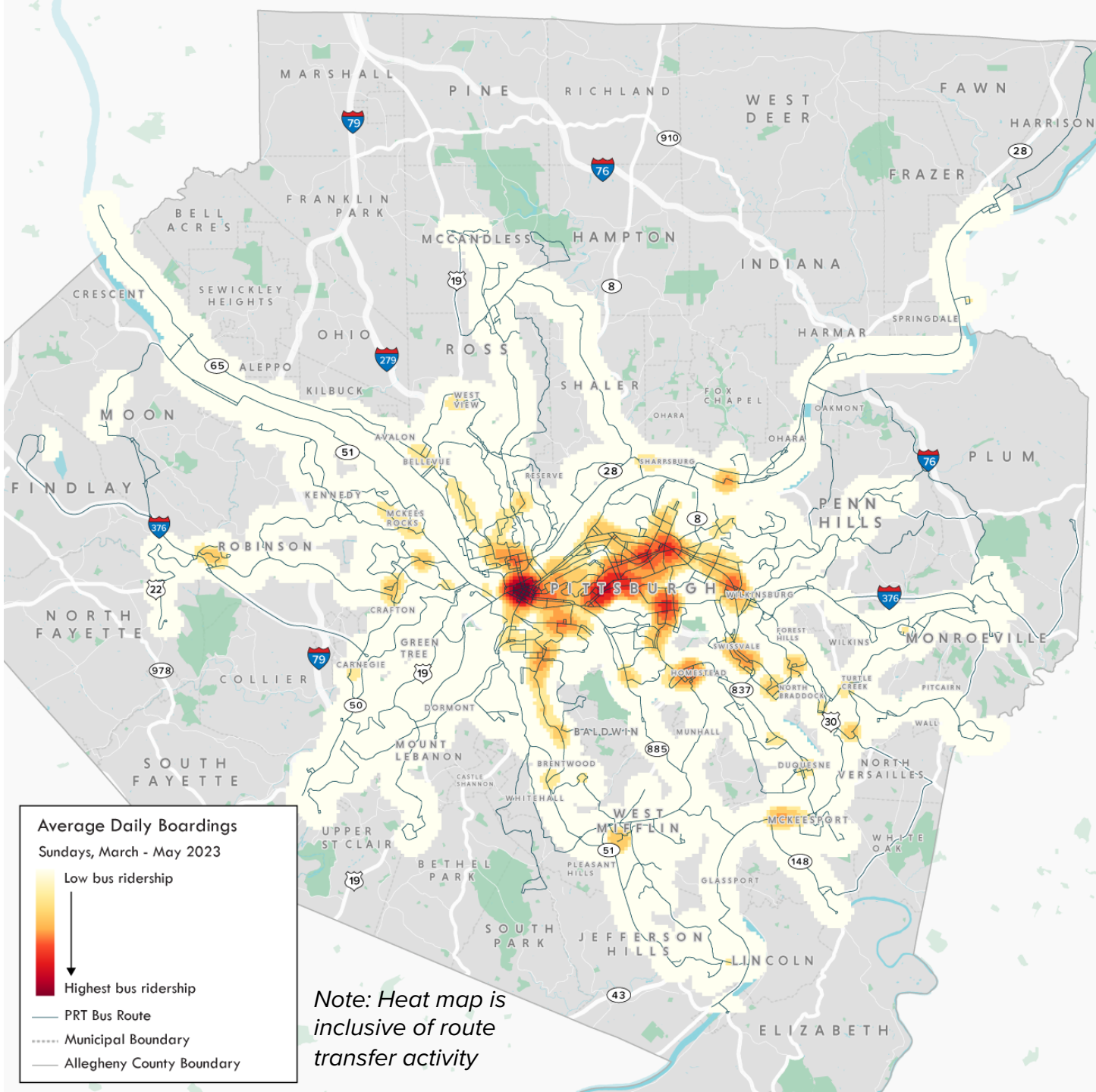


Ridership by Stop

Sunday Ridership Activity

The adjacent heat map illustrates ridership activity within the PRT service area on Sundays. Ridership activity is slightly below Saturdays and weekdays, and service is more limited. However, ridership is concentrated in many of the same key areas as Saturday and during the week:

- Downtown Pittsburgh
- Squirrel Hill neighborhood
- Wilkinsburg area
- South Side Flats
- Allegheny Center/North Side
- Homestead area
- The Swissvale area
- Penn Avenue corridor
- Brownsville Road corridor
- Lincoln Avenue corridor



Note: Heat map is inclusive of route transfer activity

Route Transfers

PRT has access to a software packaged called Korbato, which combines fare transaction data with transit vehicle data to reconstruct a cardholder's daily travel history, including the inference of origins, destinations and linked transit trips. This data was used to understand route transfer and travel movements of PRT riders. It is important to keep in mind that this data is only available for passengers that use PRT's ConnectCard. Transfer patterns could vary for riders that pay with cash and/or use a mobile app. Data used for this analysis covers March 1 through June 30, 2023.

The adjacent table presents transfer rates for each service category. This table reflects transfers rates for routes by service category. Overall, 84% of PRT trips completed with the ConnectCard are made with no transfers. Transfer rates are highest for coverage routes, and lowest for commute routes. Routes that have high transfer rates (1 or more transfers) are as follows:

- Route 7 (35% transfer rate)
- Route 79 (30% transfer rate)
- Route 74 (27% transfer rate)
- Route 11 (26% transfer rate)
- Route 17 (24% transfer rate)

Weekday Route Transfers Rates by Service Category

	0 Transfers	1 Transfer	2 Transfers	3+ Transfers
Local Routes	84.6%	14.0%	1.2%	0.3%
Coverage Routes	79.5%	18.2%	2.0%	0.4%
Commute Routes	85.4%	13.7%	0.8%	0.2%
Rapid Routes	84.9%	14.1%	0.8%	0.2%
All Bus Routes	**84.4%**	**14.1%**	**1.2%**	**0.3%**

Transfer analysis identifies number of transfers from a passenger's starting route.

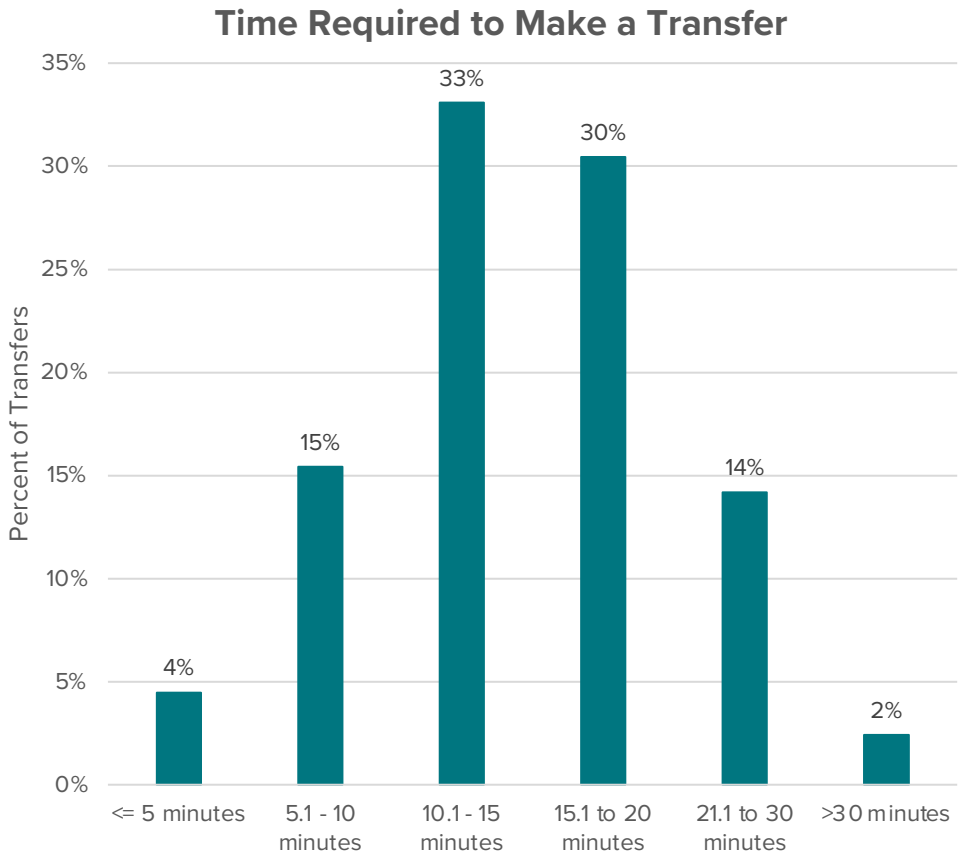
Route Transfers

A route-to-route transfer matrix was created to determine route combinations with high transfer rates. Notable route-to-route transfer activity is as follows:

- Routes P1 / 61A
- Routes 51 / 54
- Routes 51 / 48
- Routes 71C / 82
- Routes P1 / 79
- Routes 51 / P1

As listed above, most transfer activity occurs with Routes P1 and 51, two of PRT's highest ridership routes.

The Korbato data tracks the time taken to make a transfer. PRT allows unlimited transfers within a 3-hour window of the first boarding. For purposes of this analysis, a 45-minute window was assumed for transfers, with times beyond 45 minutes assumed to be related to a separate or return trip. Average transfer times are shown below. Over 50 percent of all transfers were completed within a 15-minute time window.



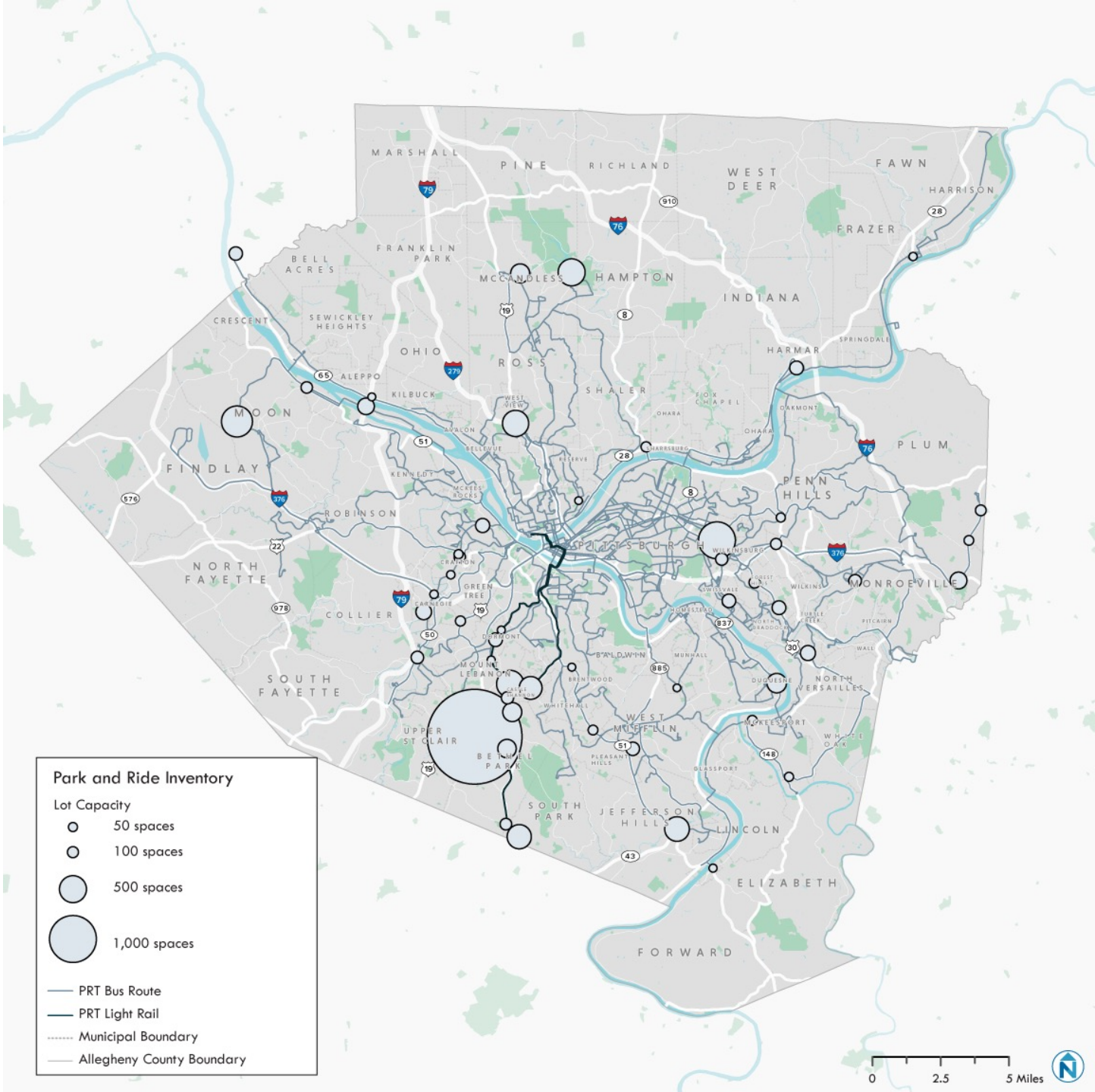
Park-and-Ride Utilization

The Western Pennsylvania Regional Data Center maintains an inventory of the region's park-and-ride facilities. This inventory identifies 52 park-and-ride lots that are served by PRT service, with a total of approximately 11,450 available parking spaces. PRT is identified as the owner of 28 of the 52 park-and-ride lots, with the remaining owned by either the Pennsylvania DOT, Allegheny County or privately owned.

The largest of these facilities is the South Hills Village LRT station parking garage, located in Bethel Park with 2,200 spaces. This garage serves PRT's Blue and Red LRT lines. Other lots with capacity for 500 or more vehicles include:

- Wilkinsburg Station on the East Busway
- University Blvd. in Moon Township
- Castle Shannon LRT Station
- North Park Pool

Parking is generally available at all PRT park-and-ride lots throughout the day.



On-Time Performance

PRT defines on-time as service that is no more than one minute early to five minutes late at a scheduled timepoint. PRT data from the April 2023 service mark-up was reviewed to determine PRT route on-time performance characteristics.

Overall system on-time performance is as follows:

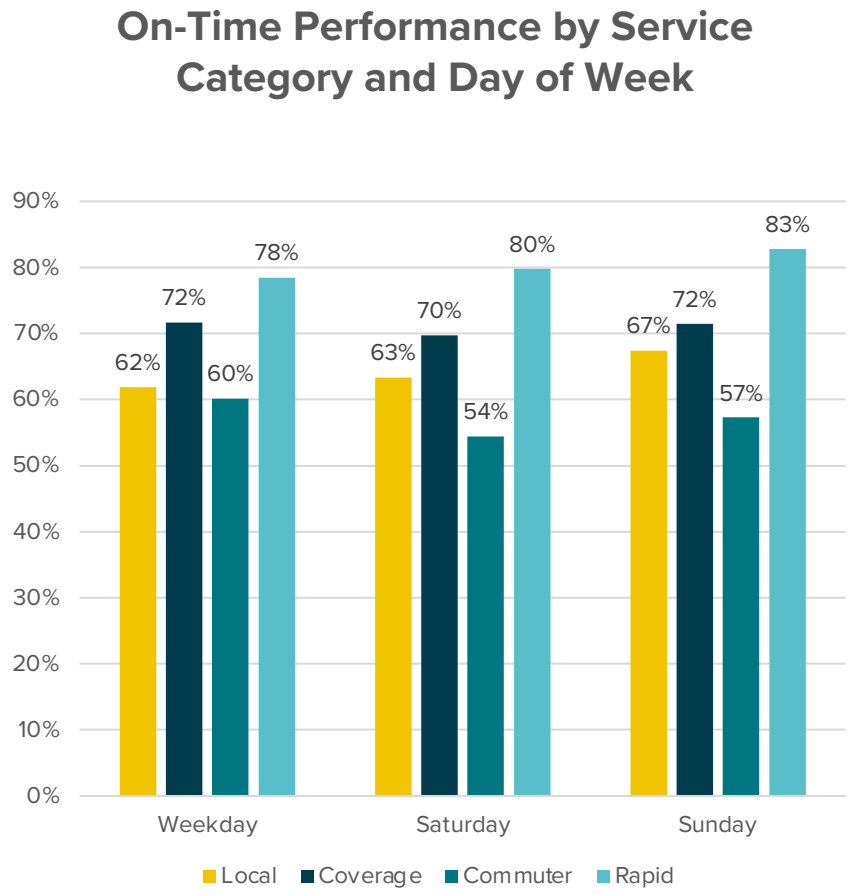
- Weekday – 63%
- Saturday – 65%
- Sunday – 68%

On-time performance tends to be slightly better on weekends than on weekdays. Rapid routes have the best on-time performance, as shown in the adjacent graph. This is due to those routes operating on exclusive busways, thus avoiding general traffic conditions. Commuter routes have the poorest on-time performance. Routes not operating on-time tend to be late rather than early. Systemwide, 9% of trips were early at scheduled time points versus 26% late.

Routes that are less than 50% on-time on weekdays are:

- Local Routes 58, 77, 88, 93
- Commuter Routes 65, O5, P13

This project's route performance dashboard provides route-specific on-time performance information.



On-Time Performance

A closer look at weekday on-time performance was taken to determine how on-time performance varies by time of day. The adjacent table presents these findings.

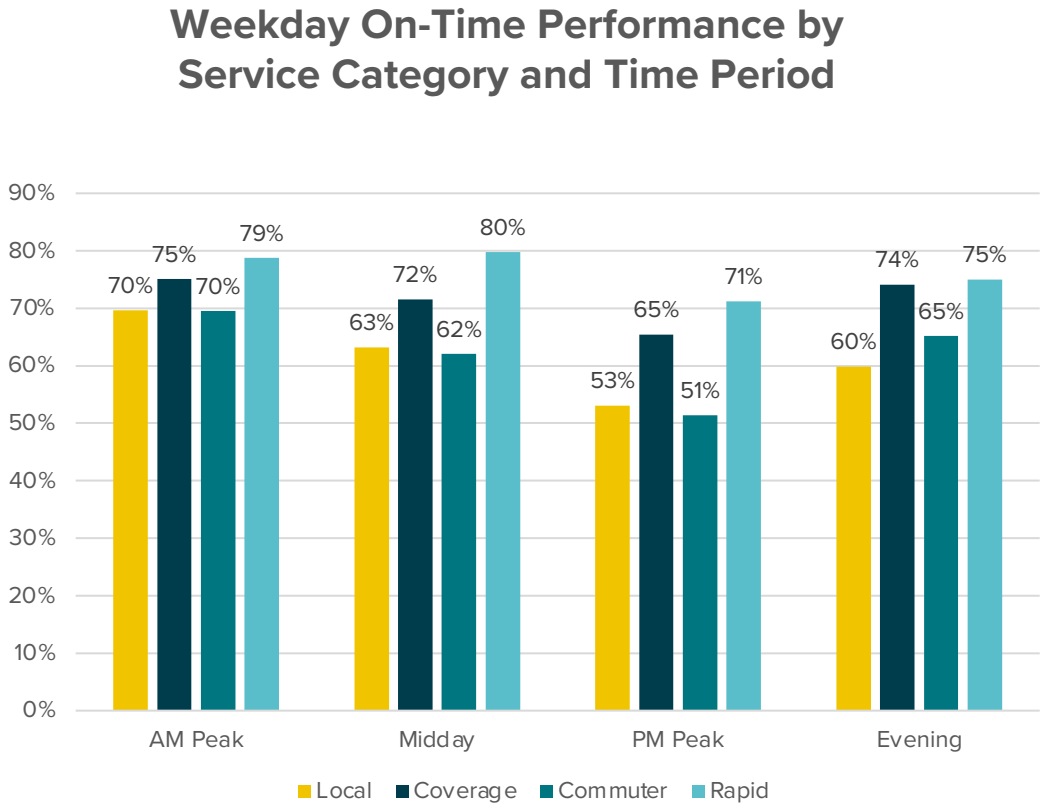
Overall system weekday on-time performance by time of day is as follows:

- AM Peak – 71%
- Midday – 65%
- PM Peak – 55%
- Evening – 63%

On-time performance is best in the morning, degrades throughout the day, and rebounds a bit during the evening period.

Local and commuter routes experience the largest degradation of service performance. Local route segments operating on-time average 70% in the AM peak, degrading to 53% in the PM Peak. Commuter routes see a similar degradation—from 70% to 51%.

This project's route performance dashboard provides route-specific on-time performance information.



Service Frequency Score

Service Frequency Score

A key objective of this State of the System report is to establish a baseline of existing PRT service characteristics for comparison to potential future service options. An important criterion for this evaluation is the measurement of access to frequent service, semi-frequent service and coverage service.

For this project, two “scores” were developed for measuring systemwide weekday and weekend system service frequency. Variables used in these calculations are noted in the adjacent graphic.

- ***Transit Access*** is measured with the following two variables: population and job locations near frequent, semi-frequent or coverage stops. These metrics are measured against total Allegheny County population and jobs.
- ***Transit Supply*** is measured with the following two variables: the number of bus stops with frequent, semi-frequent or coverage service and route service hours operating at frequent, semi-frequent or coverage service levels.

Frequent service is defined as 15-minutes or better for the defined service period. Semi-frequent service is defined as 16- to 30-minute frequencies for the defined service period. Service frequencies greater than 30 minutes are categorized as coverage. Quarter-mile buffers around bus stops and half-mile buffers around transit stations have been used to define service proximity.

A weekday score was developed by averaging the collective p.m. peak and midday period scores. A weekend score was developed by averaging the collective Saturday and Sunday midday period scores.

Variables Used to Score Frequency

Transit Access

Population
How many people live near a frequent or semi-frequent service stop?

Job Locations
How many jobs are located near a frequent or semi-frequent service stop?

Transit Supply

Bus Stop Service Levels
How many existing bus stops have frequent or semi-frequent service?

Route Service Hours
How many service hours are assigned to frequent or semi-frequent service routes?

Service Frequency Score

Weekday Service Frequency Score

Frequency scores were developed for each of the four categories for the p.m. peak and midday time periods and then averaged to arrive at an overall weekday score for each category. Scores for the four categories were then averaged to arrive at an overall weekday score. Score results are presented in the adjacent graphs.

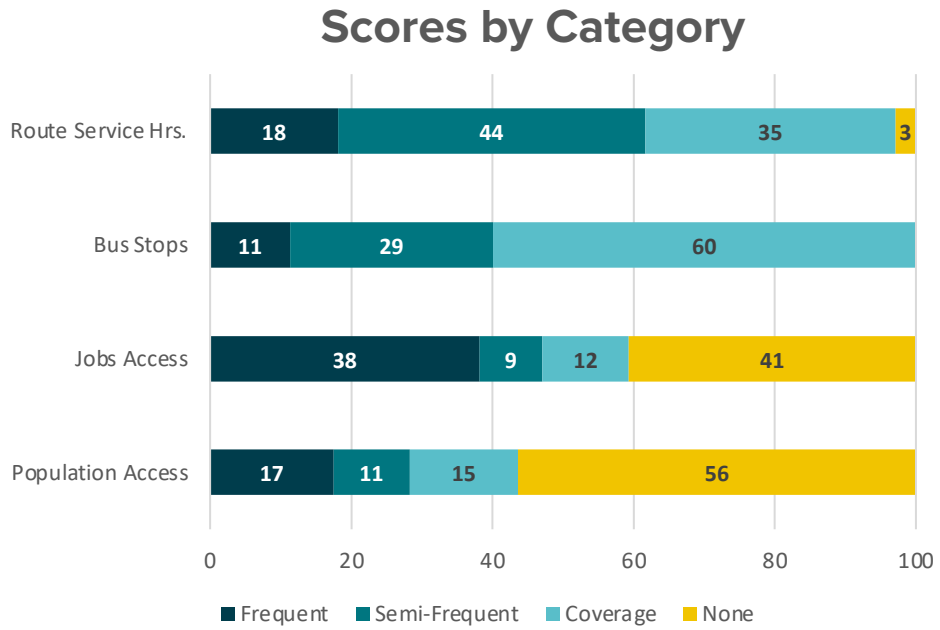
PRT's weekday scores for frequent, and semi-frequent or better service frequency are as follows:

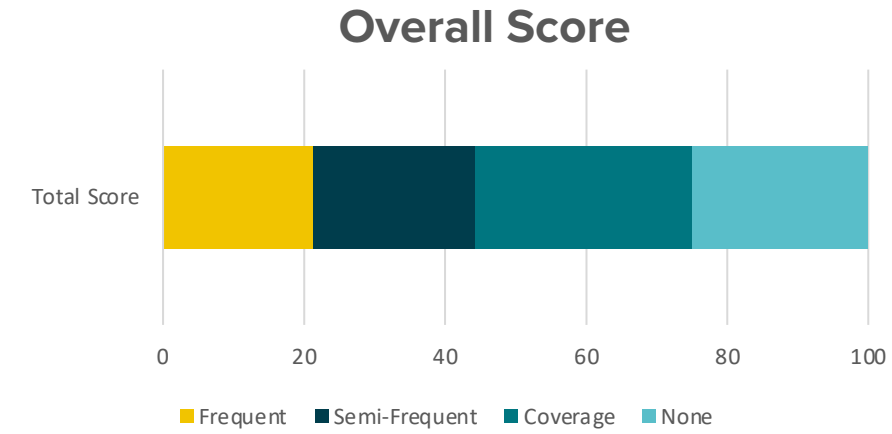
21 **Frequent Service Score**

44 **Semi-Frequent or Better Service Score**

These scores are based on a total scale of 100. Population and jobs access score low because a significant number of Allegheny residents and jobs do not have access to PRT service. There are also only 11% of PRT bus stops with frequent weekday service. However, those 11% of all weekday bus stops are responsible for 77% of PRT's weekday ridership.

Future service scenarios developed as part of this project will be measured against these scores.





Service Frequency Score

Weekend Service Frequency Score

Frequency scores were developed for each of the four categories for the Saturday and Sunday midday time periods and then averaged to arrive at an overall weekend score for each category. Scores for the four categories were then averaged to arrive an overall weekend score. Score results are presented in the adjacent graphs.

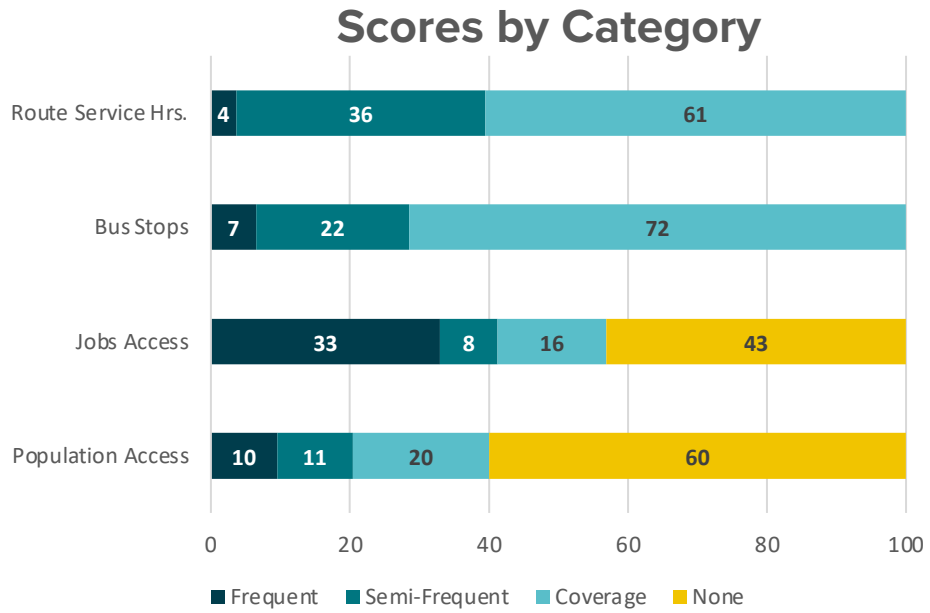
PRT's weekend scores for frequent, and semi-frequent or better service frequency are as follows:

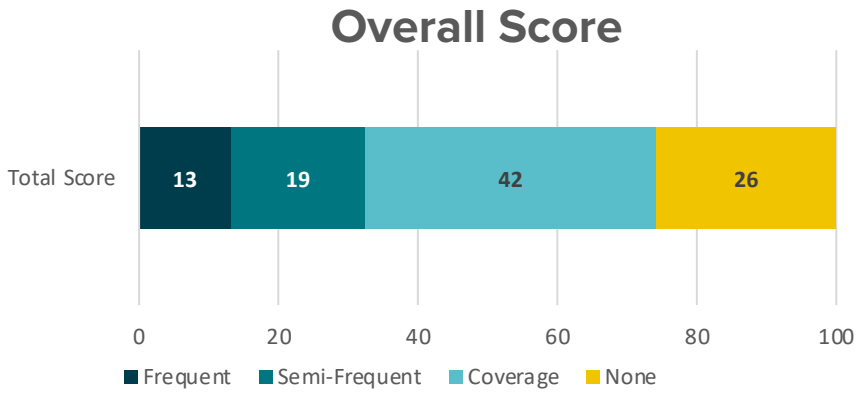
13 **Frequent Service Score**

32 **Semi-Frequent or Better Service Score**

These scores are based on a total scale of 100. As noted in the weekday score, population and jobs access score low because a significant number of Allegheny residents and jobs do not have access to PRT service. There are also few route service-hours and bus stops with frequent transit service. However, the 7% of bus stops with frequent bus service are responsible for 58% of PRT's weekend ridership.

Future service scenarios developed as part of this project will be measured against these scores.





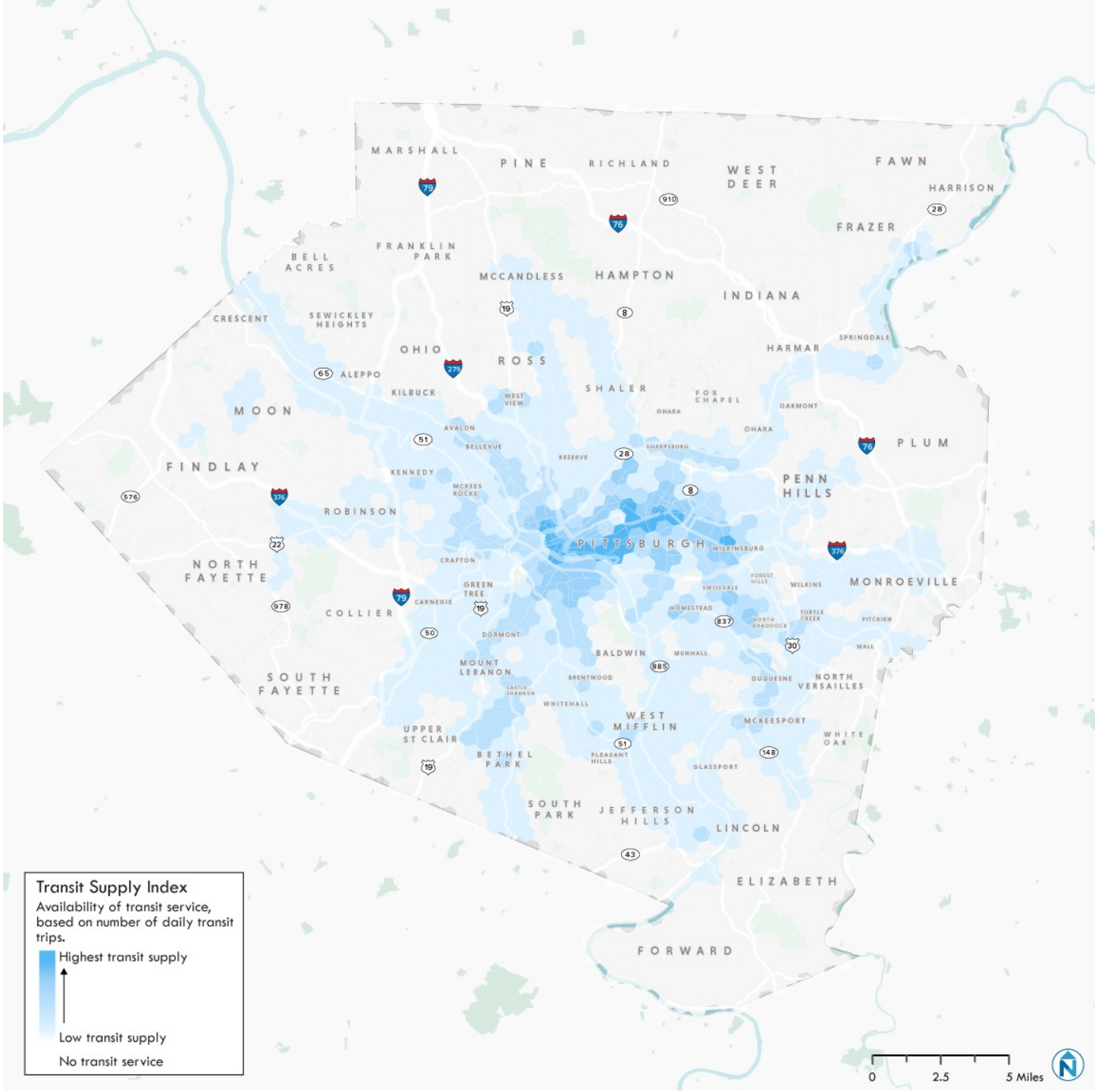
Service Gaps Analysis

Transit Service Gap Assessment

Transit Supply Index

The Transit Supply Index (TSI) is a measure of how much transit service is available at a certain location in the service area. Half-mile diameter hexagons have been defined throughout the service area, with daily weekday bus visits determined for each hexagon. Quarter-mile buffers were used for bus stops and half-mile buffers were used for rail stops, with daily bus trips distributed to hexagons based on the geographic proportion of the stop's buffered area. Areas with the highest TSI scores include:

- Downtown Pittsburgh
- Forbes/Fifth Avenue corridor
- Oakland/North Oakland
- Squirrel Hill North
- East Liberty
- Wilkinsburg



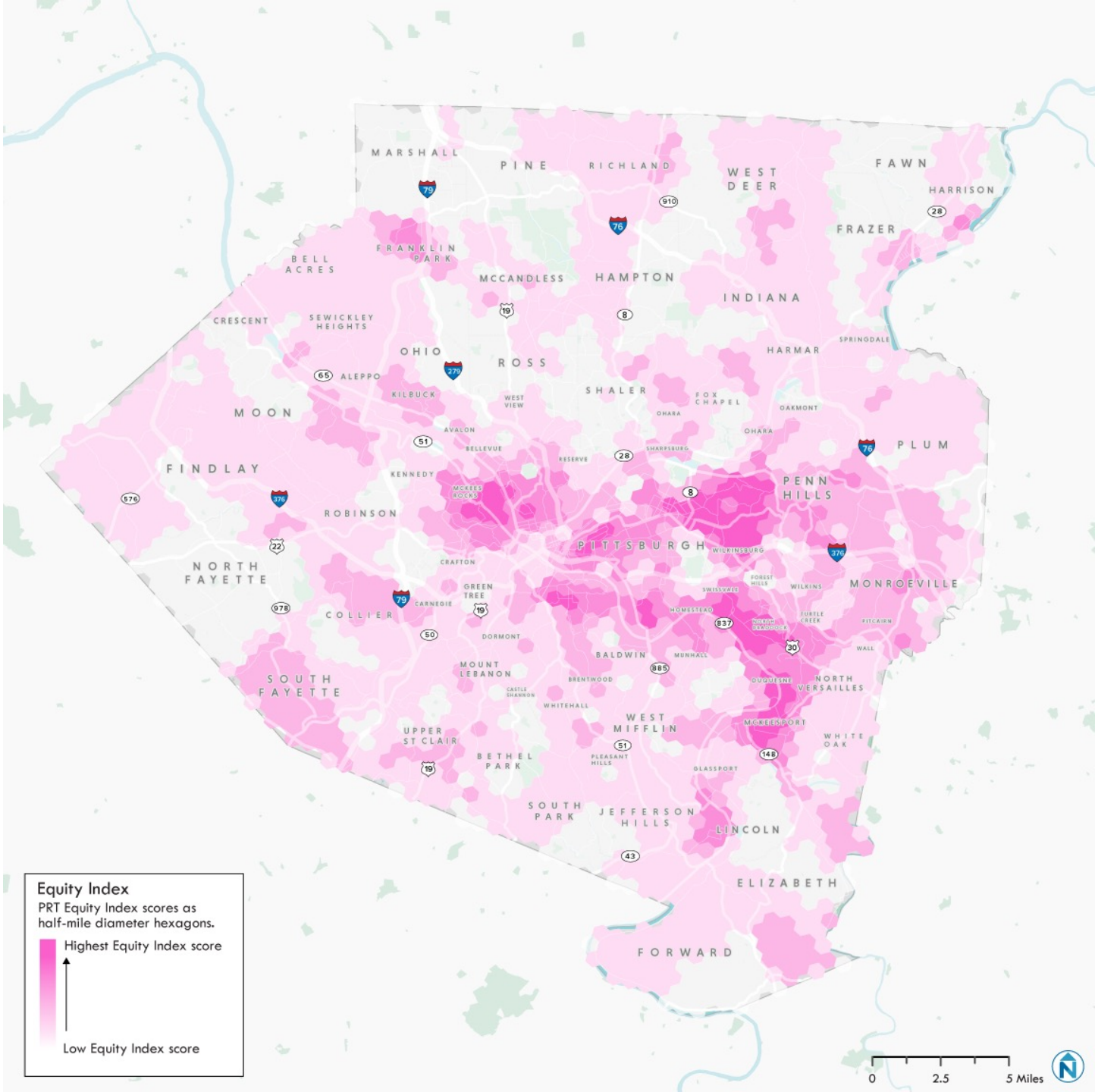
Transit Service Gap Assessment

Equity Index

PRT has an Equity Index that takes into consideration locations of populations with greater mobility needs. This index is analyzed at the census block group level. Population categories used in the Equity Index equation are:

- Low-income households
- Cost burdened renters
- Racial and ethnic minorities
- Households with no vehicles

PRT's Equity Index has been refined by half-mile diameter (quarter-mile radius) hexagons, consistent with the TSI map. Census block group equity scores have been redistributed into the hexagon shapes. Areas with the high equity index scores include the Mckees Rocks, Sheraden, Manchester, Perry South, Mount Oliver, the Hill District, Oakland, Hazelwood, Homewood, East Hills, Wilkinsburg, Lincoln Park, Rankin, Braddock, Duquesne, and McKeesport.



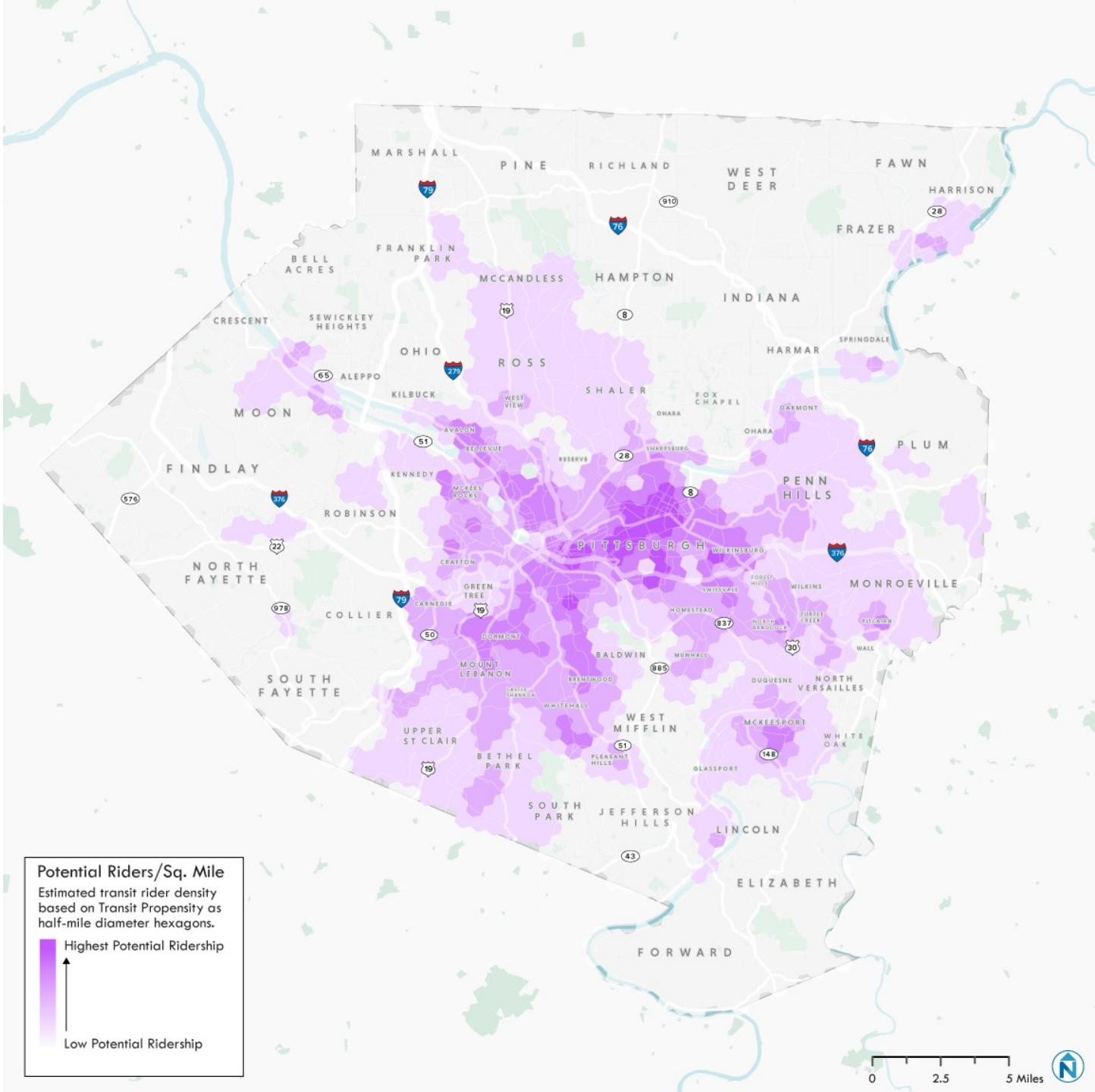
Transit Service Gap Assessment

Potential Transit Riders

PRT's Long-Range Transportation Plan includes a Transit Propensity Index (TPI), which considers demographic factors related to transit usage, including women, older adults, adults under 25, low-income residents, zero vehicle households, persons with disabilities, ethnic and racial minorities, workers with GEDs or less, and foreign-born residents (based on TCRP Report 28: Transit Markets of the Future).

PRT's TPI has been updated with more recent Census data for this study effort, then combined with block group population to estimate the number of potential transit riders in each block group, or the number of people who would ride transit if all needs were met and transit services were readily available to everyone. The density of potential riders in each hexagon was then calculated.

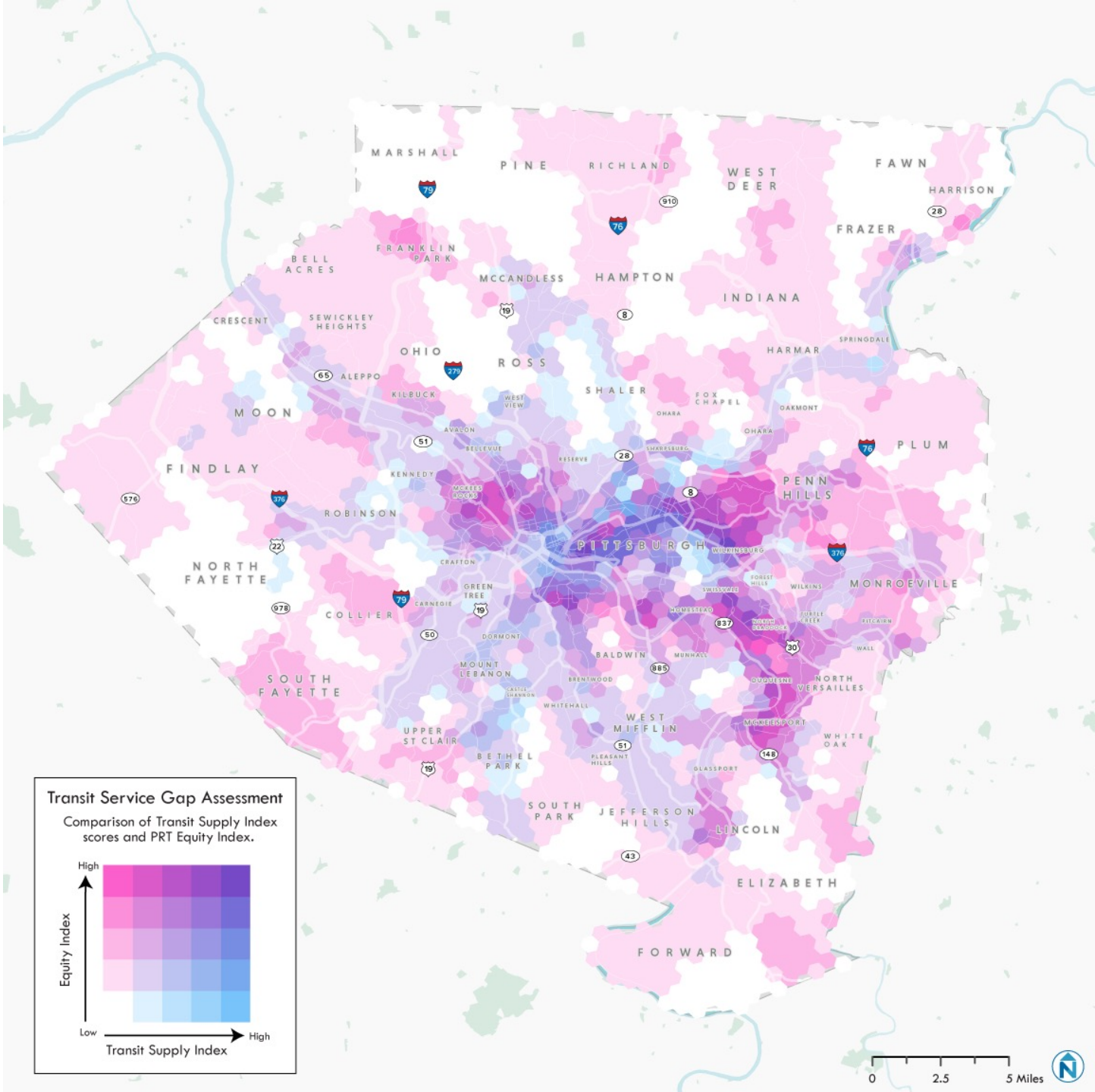
Areas with the highest density of potential transit riders include most of the East Side of Pittsburgh, Wilkinsburgh, Mckeesport, Mount Oliver, Dormont, and Brentwood.



Transit Service Gap Assessment

TSI vs Equity Index Analysis

TSI scores were compared to Equity Index scores to identify how well current transit levels serve areas with greater mobility need. Hexagons that are more magenta show areas with higher equity scores and lower transit service provided, while hexagons that are more blue show areas with lower equity scores and more transit service provided.

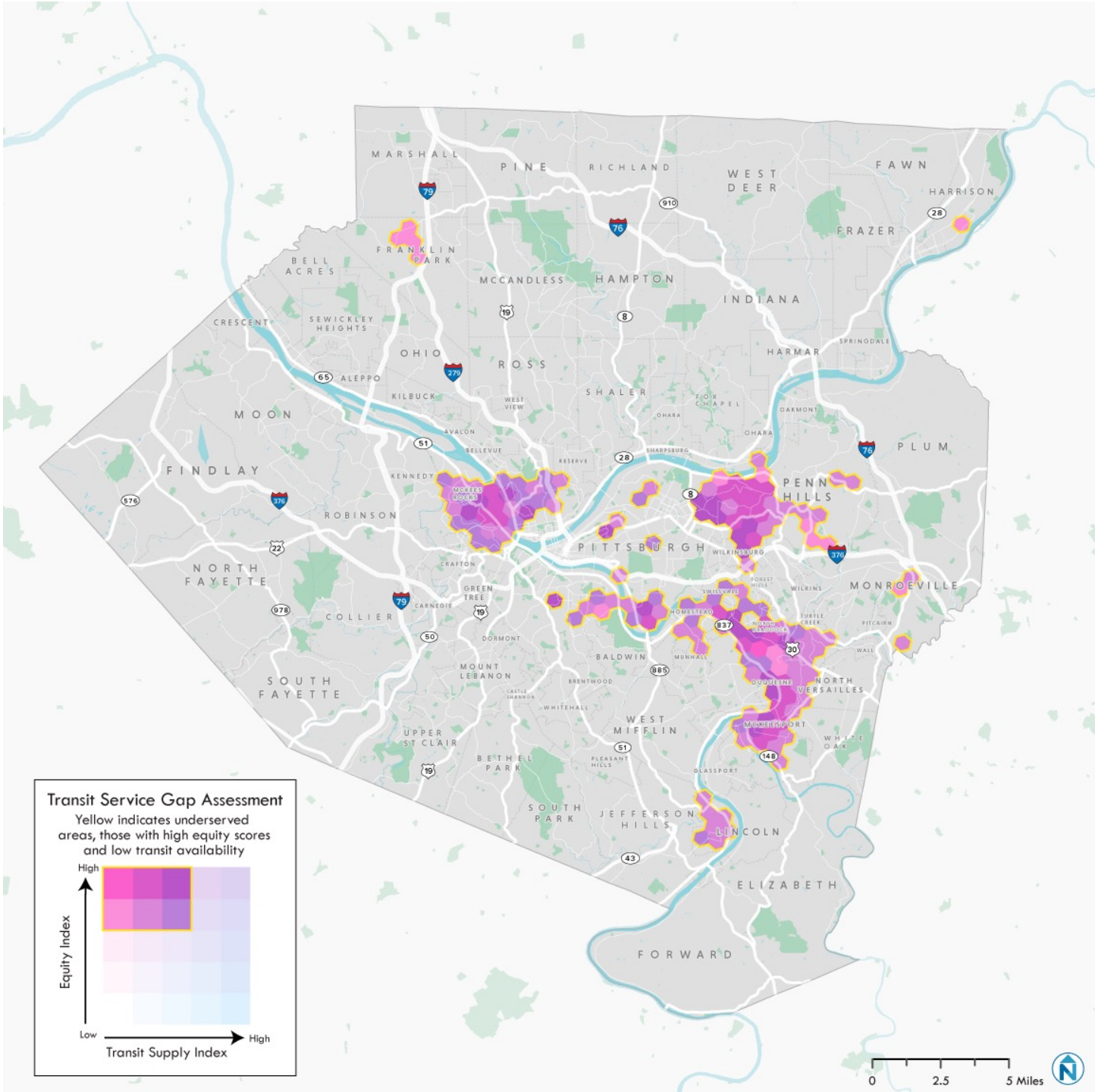


Transit Service Gap Assessment

TSI vs Equity Index Analysis

Focusing in on hexagons with high equity scores but low transit supply, these areas are currently underserved by transit services. Areas with the greatest need for more transit service include:

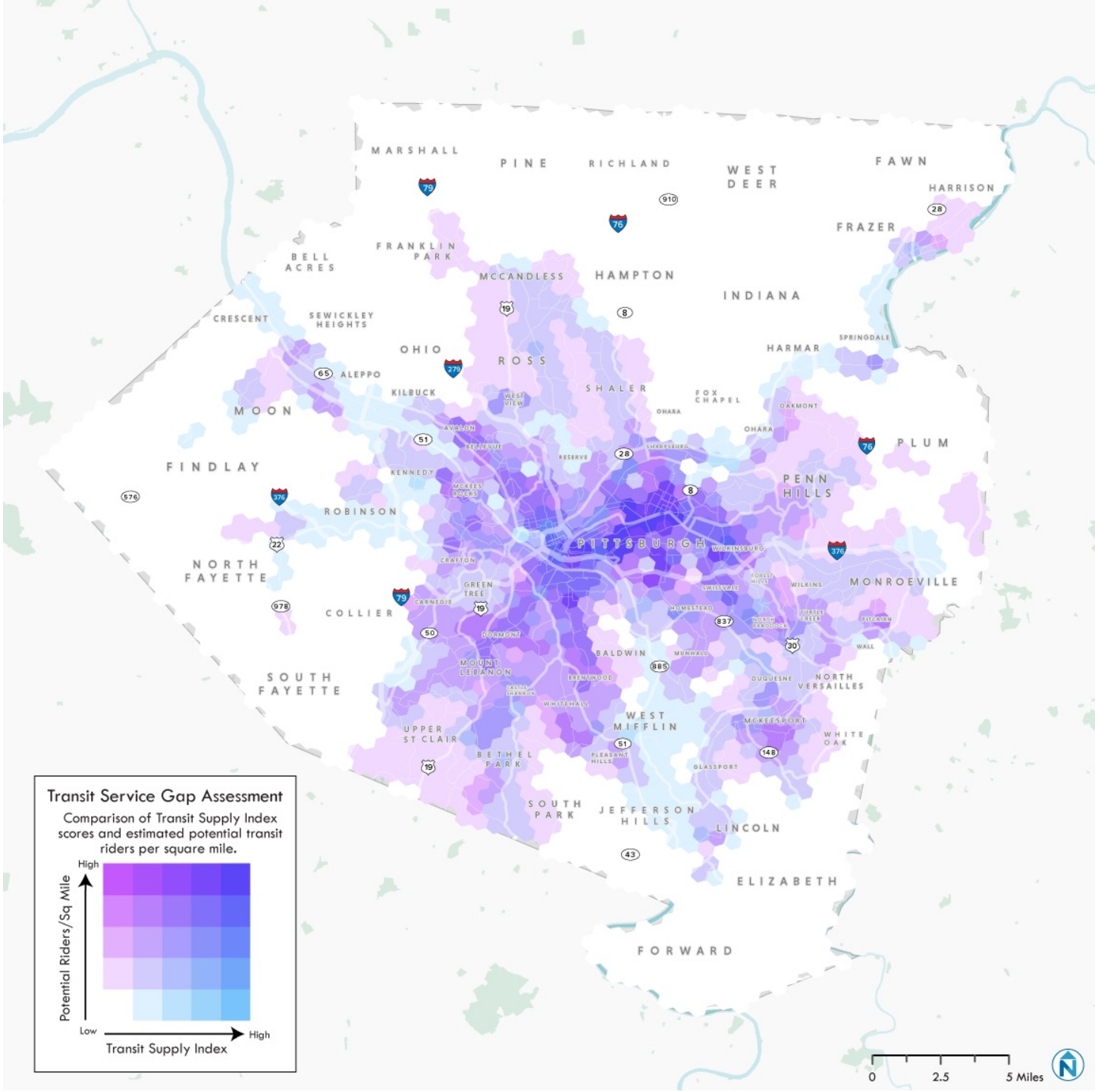
- McKees Rocks
- Marshall-Shadeland and Perry South
- The Hill District
- Hazelwood
- Mt Oliver
- Lincoln-Lemington-Belmar, Lincoln Park, and Nadine
- Homestead, Swissvale, and North Braddock
- Duquesne
- McKeesport
- Parts of Penn Hills
- Parts of Monroeville



Transit Service Gap Assessment

TSI vs Potential Transit Riders Analysis

Similarly, Transit Supply Index scores were compared to the density of potential transit riders to identify areas that have a mismatch between transit demand and the level of transit service provided. Areas that show up in a purple color on the adjacent map have higher transit demand and low transit service, while areas that are more blue have more transit service and less transit demand.



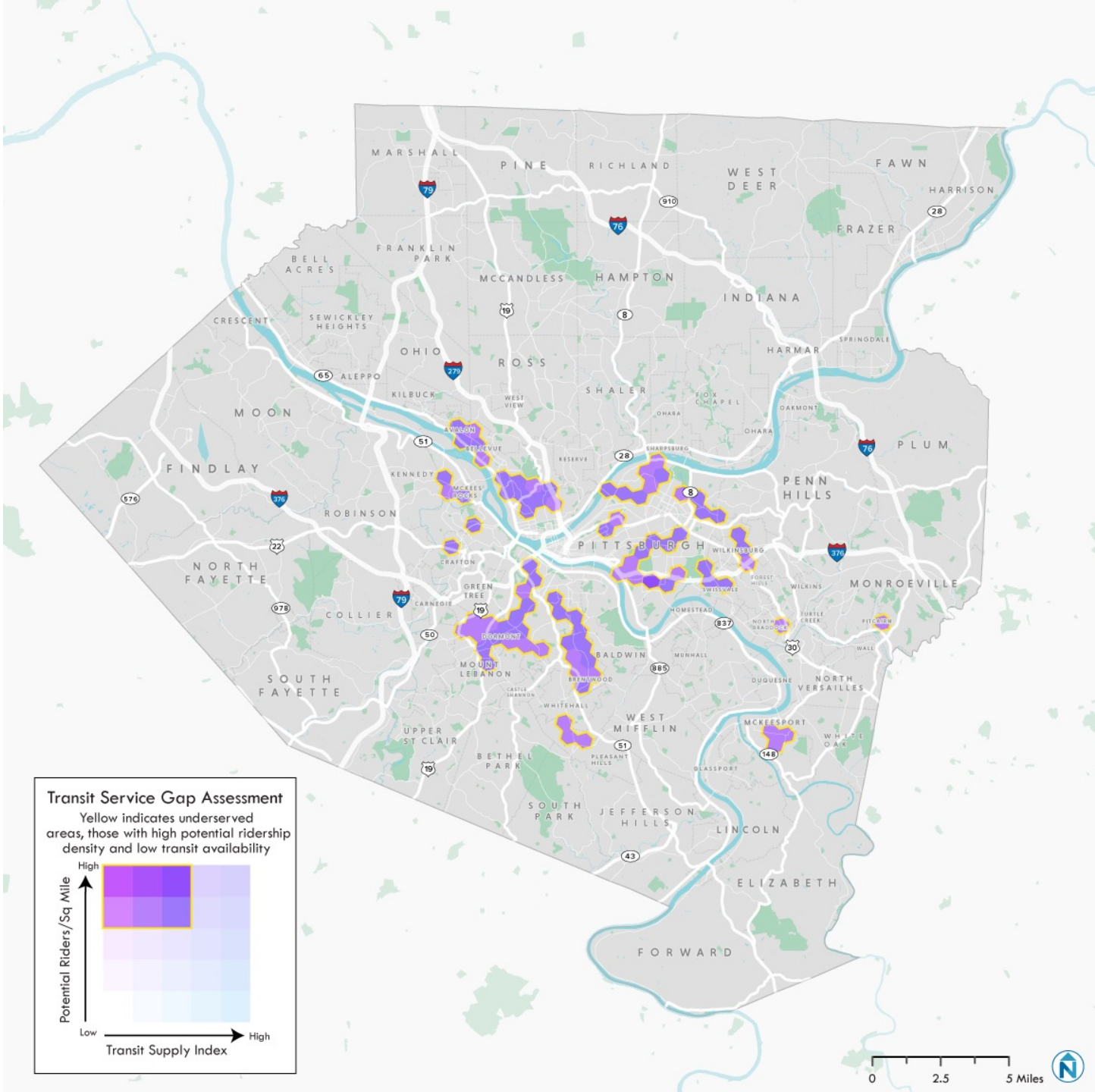
Transit Service Gap Assessment

TSI vs Potential Transit Riders Analysis

Areas that have high demand for transit but are underserved by transit include:

- McKees Rocks
- Avalon and Bellevue
- Carrick and Brentwood
- Beechview and Dormont
- The Hill District
- Morningside and Lawrenceville
- Greenfield
- Swissvale
- Homewood
- Wilkinsburg
- McKeesport

If there were more transit service in these areas, there would likely be higher transit ridership.



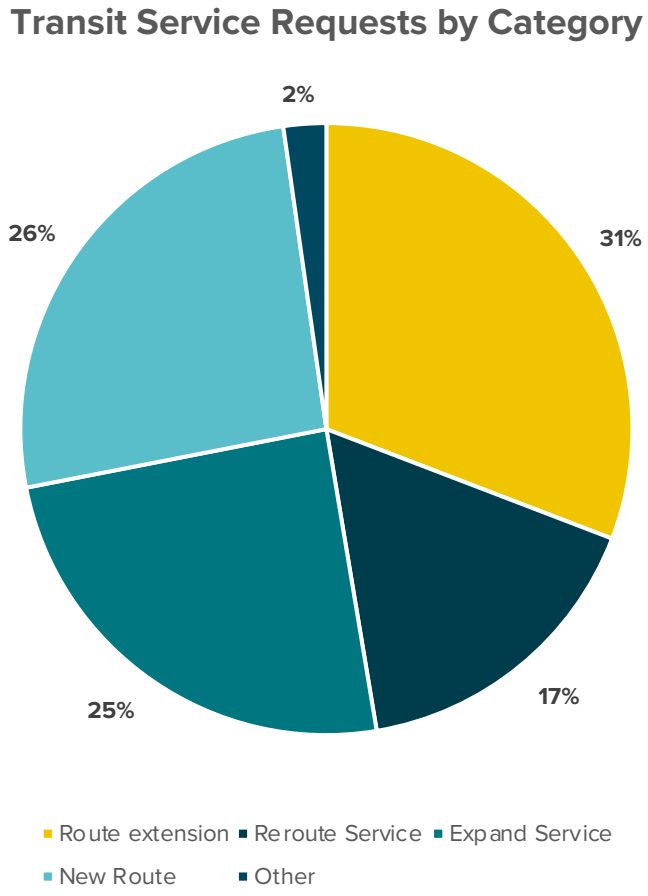
Service Requests

Transit Service Requests

Passenger service-related requests were collected and reviewed for the past several years (from 2015 through 2023). There were nearly 400 service-related requests during this time. For purposes of this analysis, those service requests have been organized as follows:

- Reroute Service: calls for an alternate path to be taken for a route to get from the same start to end point
- Expand Service: applies to requests for more service hours or trips
- Route Extension: applies when a route is recommended to travel beyond the present parameters of the route
- New Route: calls for a new route to be created or for a previously discontinued route to be brought back
- New Stop: requests for a new stop
- Eliminate Service: calls for a route to be eliminated or for fewer trips or service hours
- Operational Changes: calls for an interline, alternating trips based on route version, or anything else that is more of a concern for the operations of the route than the rider experience

Most service requests fell under the categories of Reroute Service, Expand Service, Route Extension or New Route service. Service requests were found to be distributed throughout the entire PRT service area.

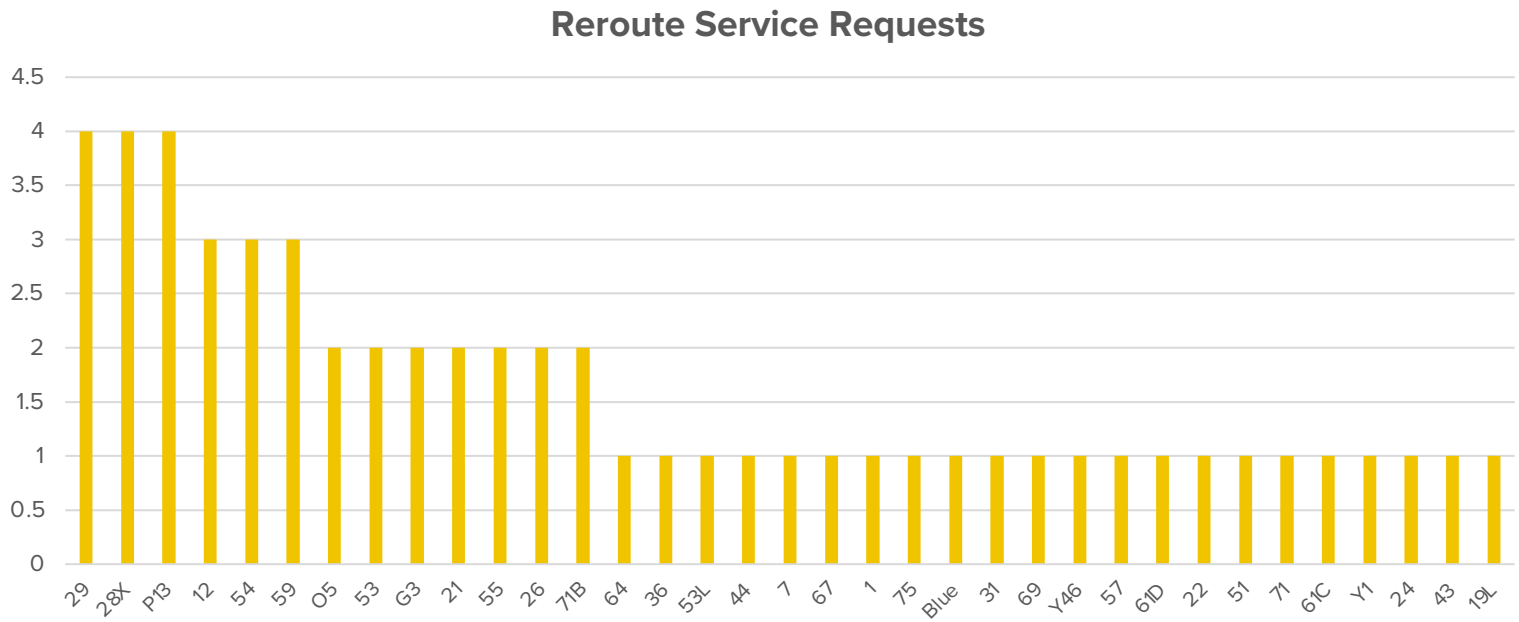


Transit Service Requests

Service Reroute Requests

There were a total of 66 Service Reroute requests. Popular requests were as follows:

- Modify Route 29's alignment to McDonald, Settlers Ridge and Steubenville
- Reroute 28X out of the Robinson Town Center area
- Return Route P13 to the MLK Jr. East Busway
- Return Route 54 to Forbes Avenue
- Modify Route 12 to operate through Collington Square and North Hills Village
- Make Route 59 much more direct and shorter

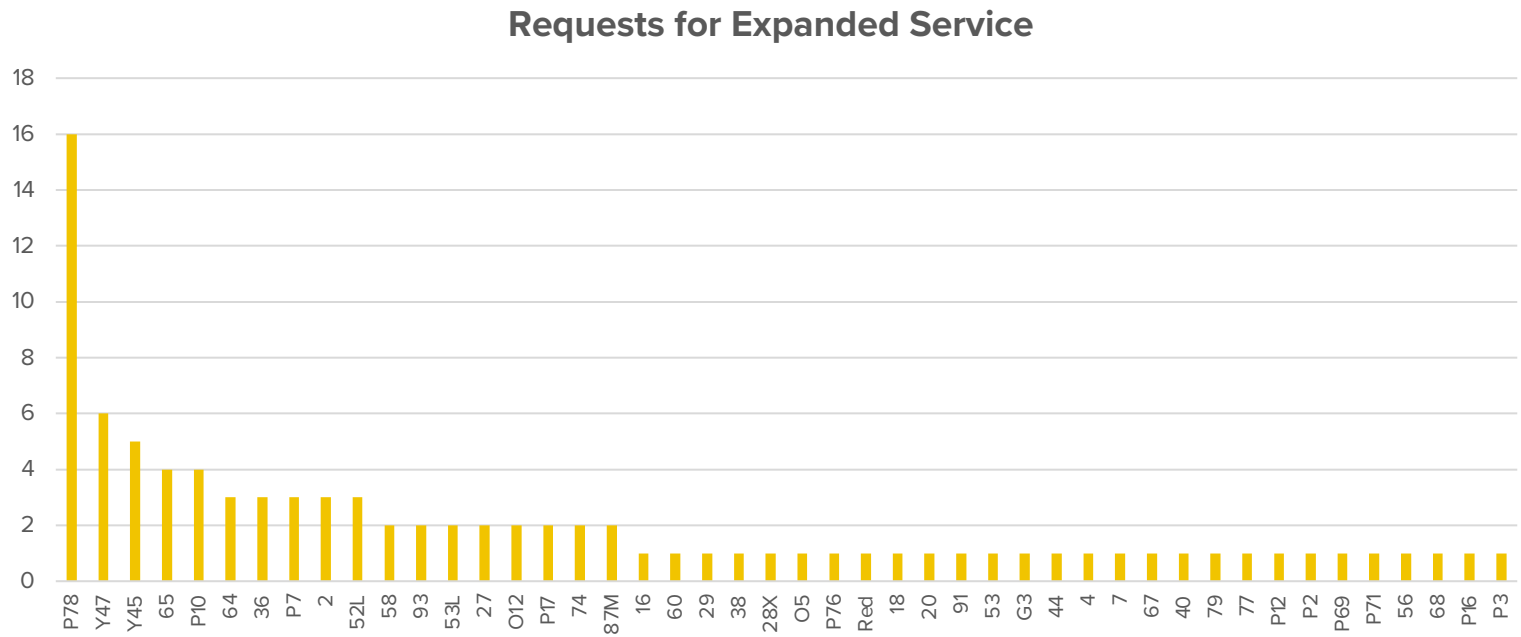


Transit Service Requests

Service Expansion Requests

There were a total of 98 requests for Service Expansion on 44 routes. These requests were for longer hours, more trips and/or additional service days. A large majority of these requests were for routes to operate on the weekends.

- By far, the most popular request was for Route P78 weekend service
- Y47 received requests for Sunday service
- Y45 received 4 requests for weekend service
- Other routes with requests for weekend service include Routes P7, 53L, 93, 36, and 2



Transit Service Requests

Route Extension Requests

There were 123 requests for Route Extensions. Routes with numerous service extension requests include:

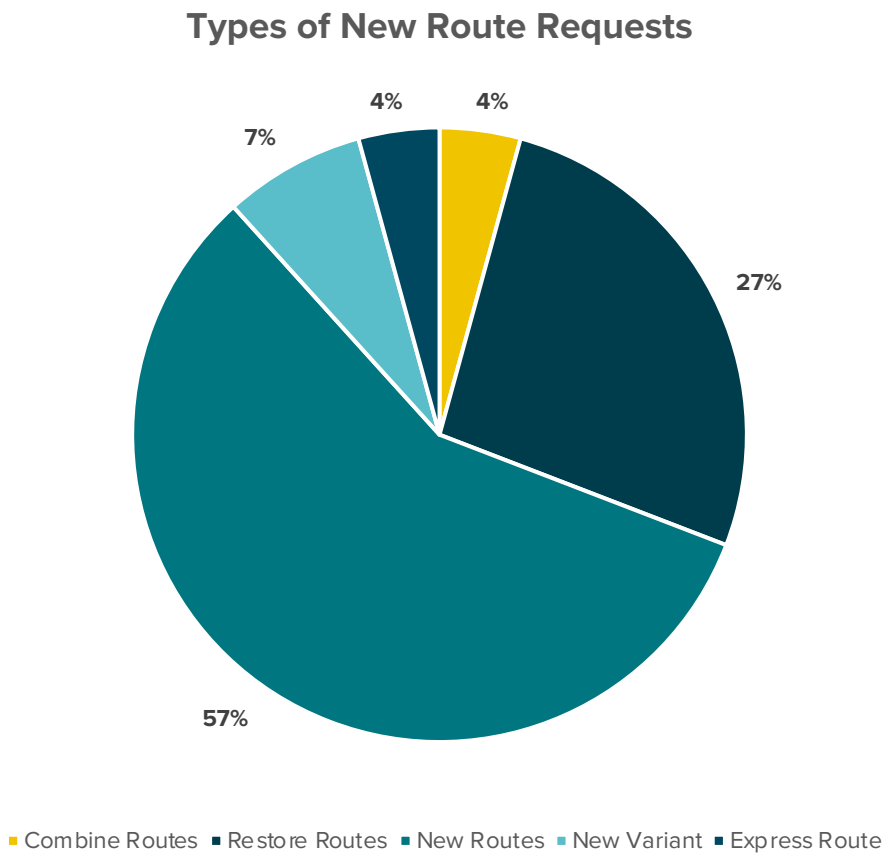
- Route 8 received six requests for extension to McCandless park and ride or Pines Plaza
- Route 1 received five requests to be extended to Highlands Mall and Harrison Hills Park
- Route 75 received five requests to be extended to Hazelwood Green, Glen Hazel, Greenfield, and RIDC Park
- Route 88 received five requests for an extension to Wilkinsburg Station

Transit Service Requests

New Route Requests

There were 103 requests for New Routes. New Route requests were broken down into five categories:

- Combine Routes (4%): taking two or more routes and suggesting combining them into one
- Restore Routes (27%): requests to bring back a discontinued route
- New Routes (57%): requests for new route service/coverage in an unserved area
- New Variant (7%): request for an existing route to utilize a slightly different alignment
- Express Route (4%): request for direct service from one stop on a route to another, with no stops in-between



Operator Feedback

Input regarding service needs was also received from PRT's bus operators. The operators interact with PRT's ridership base every day and thus hear firsthand about service needs. The operators also have daily experience with PRT's bus network, providing valuable insight regarding service needs. General systemwide service needs provided by PRT operators are as follows:

- More crosstown routes are needed that do not go Downtown
- A route should connect the west and east busway
- A direct route is needed to connect the north and south areas of the region
- Connect routes to PRT's rail network and busways instead of running everything into Downtown
- Two routes should not use the same street
- Can we look at ridership on a more granular level because people are not riding on consistent days and at consistent times like before the pandemic
- Running times need to be more realistic
- More neighborhood routes are needed
- More people might use the park and rides if you eliminate stops between the PNR lots and the destination
- Eliminate stop restrictions
- Make Oakland the central hub rather than Downtown
- Prioritize seniors and low-income riders
- Transfer locations should be safe and comfortable and with timed connections
- Restrooms are needed at the ends of lines
- Better connections needed with other transit operators in our region
- More frequency is needed, along with more trips when schools let out
- Several requests to bring back discontinued routes: 13K, 75D, 13U, 44U, 33F, 60E, 55J, 4U, STV routes, 5A, 12U, 11F, Northview Shuttle, Shopper routes and service to Jennie Lynd Street in McKeesport

Operator Feedback

Specific service requests by geographic area are as follows:

South Service Area

- Walk distance for jobs in the vicinity of Newbury Drive/Route 50 in the Bridgeville area is too far from existing service (Route 41)
- Flyover bridge needed to bypass railroad tracks near The Waterfront in Homestead
- Service needed in West Homestead
- Connect Dravosburg to Duquesne
- McKeesport needs express or limited service to Oakland
- Break up Route 59 at Walmart or The Waterfront
- Pitcairn needs service
- P76 needs weekend service
- Return P7 to the busway as an express and run all-day to help with overcrowding on 61C
- Add a crosstown route through Washington Junction

East Service Area

- Oakmont and Verona need more service (especially weekends and evenings)
- Use Beulah Road in Churchill
- Connection between Wilkinsburg area and the Walmart in North Versailles
- Bring more people into the county from Murrysville
- Create a local route that connects Plum, Monroeville and Penn Hills
- Consider microtransit for the Hill District and Lemington Homes
- Go back to using Penn Avenue in Downtown Pittsburgh
- Make routes faster and more direct between Monroeville and Downtown

Operator Feedback

Specific service requests by geographic area are as follows:

North Service Area

- Service expansion needs for Wexford, Cranberry, St. Barnabas, Mt. Nebo Point, and the northeast corner of the county
- Serve CCAC all-day
- Direct service needed to Oakland
- Spring Garden needs midday and weekend service
- Provide service to the methadone clinic
- P10 should have a short variant that goes to RIDC and then back up north
- Route 8 needs more service

West Service Area

- Extend the busway to the airport (use the median of I-376 like the HOV on I-279)
- The 28X should stay out of Robinson Town Centre
- Service needed along Campbell's Run Road and at Settlers Ridge shopping center
- South Fayette needs service restored
- Connect nearby neighborhoods to Robinson Town Center
- Short turn the 20 series routes at the busway

Key Takeaways

Key Takeaways

Service Coverage

- PRT's fixed route transit network provides weekday service to 51% of the county's population and 63% of the county's job locations.
- Service coverage drops to 41% of the county's population when evaluating PRT's weekend transit network.
- This project's Transit Service Equity and Potential Riders analyses have identified areas where new and/or additional transit services should be considered.
    - Geographic areas identified as having a greater need of transit service through both analyses McKees Rocks, The Hill District, Swissvale and McKeesport
    - Other geographic areas identified through either of the two analyses include: Marshall-Shadeland and Perry South, Hazelwood, Mt. Oliver, Lincoln-Lemington-Belmar, Lincoln Park, and Nadine, Homestead, and North Braddock, Duquesne, Parts of Penn Hills, Parts of Monroeville, Avalon and Bellevue, Carrick and Brentwood, Beechview and Dormont, Morningside and Lawrenceville, Greenfield, Homewood, and Wilkinsburg
- This project's market analysis will provide additional information regarding service coverage needs.

Bus Line Redesign Project Takeaway:
Identify service expansion opportunities in locations where there is an imbalance of transit propensity and/or equity to transit supply.

Key Takeaways

Service Reliability

- PRT's service standards by service category are as follows:
  - Local and coverage routes – 75%
  - Commute routes – 80%
  - Rapid routes – 85% for busway routes

Analyses completed as part of the State of the System Analysis has found that most PRT routes are not meeting these standards. PRT's FY 2022 Annual Service Report also notes that PRT's on-time performance is below its peer systems.

- For all route service categories, on-time performance degrades throughout the day through the p.m. peak, and then improves in the evening.
- There are over 20 PRT routes that are 20 miles or more in length, which contributes to on-time performance challenges. Route 59 (Mon Valley) is PRT's longest route at 35 miles in length (one-way). On-time performance can be challenging on long routes, for an unexpected delay in one segment can easily cascade to other route segments. End-of-line recovery times may also be insufficient to address the slower travel speeds observed in the afternoons. Long routes can also present challenges when considering conversion to battery electric buses (BEBs) because of battery range limitations.

Bus Line Redesign Project Takeaway:

Identify opportunities to improve system on-time performance through new route designs (such as shorter routes), identification of low-cost capital improvements and route schedule adjustments.

Key Takeaways

Service Directness

- PRT's network is structured where Downtown is the major focus.
  - Of PRT's 95 bus routes, 81 routes operate to/from Downtown Pittsburgh.
  - Nearly 85 percent of PRT's weekday revenue hours are devoted to routes that operate to/from Downtown Pittsburgh.

This Downtown focus provides one seat rides for passengers destined to Downtown, but results in the need for more transfers for crosstown destinations.

- There are presently 19 PRT routes that serve the Oakland area. Over 30 percent of PRT's weekday revenue hours are on these routes operating to or through the Oakland area. Most of these routes provide strong east-west transit service, but service is limited from the north, south and west.
- Other potential destinations that might warrant consideration of new crosstown services include The Waterfront Shopping Center in Homestead, Robinson Town Centre, Pittsburgh International Airport, Pittsburgh Mills, Cranberry, Ross Park Mall / McKnight Road, and East Liberty.
- Many of PRT's express routes take advantage of PRT's busway network, providing a faster trip into Downtown than on local roads. This maximizes one-seat ride opportunities for PRT riders but may be creating service inefficiencies with multiple routes following the same service pattern into Downtown.

Bus Line Redesign Takeaway:

Identify opportunities to reallocate service to non-downtown destinations throughout the region. Consider route turn backs at busway stations to provide resources for new and expanded crosstown services.

Key Takeaways

Service Levels

- PRT operates the most frequent service (every 15 minutes or better) on weekdays during the AM and PM peak, with 15 frequent routes weekday mornings, compared to 3 frequent routes during the midday weekdays, 1 route on Saturdays, and none on Sunday.
- 77 percent of PRT's weekday ridership occurs at stops with 15-minute or better service (11 percent of PRT's weekday network bus stops). Conversely, 8 percent of PRT's weekday ridership occurs at stops with 31-minute or greater service frequency (60% of PRT's weekday network bus stops)
- Most of PRT's local routes operate late into the night 7 days a week, but many routes have buses that come less than once per hour at night and on weekends. Service on most coverage routes is very limited on weekends, and nonexistent Sunday evenings.
- Comparing 2019 and 2023, midday and weekend ridership has recovered at a greater rate than weekday peak periods.

Bus Line Redesign Takeaway:

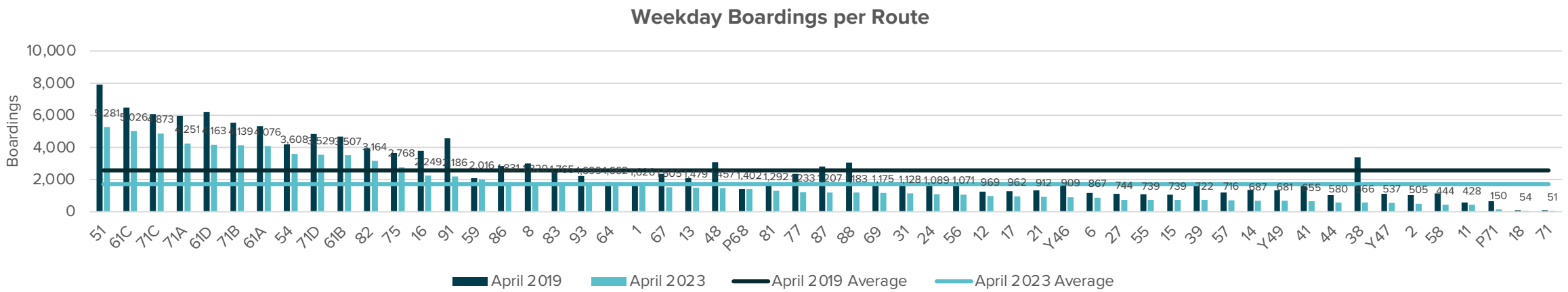
Identify opportunities to increase bus service during the middle of the day, in the evenings, and on weekends, potentially through reallocation of resources from weekday peak services.

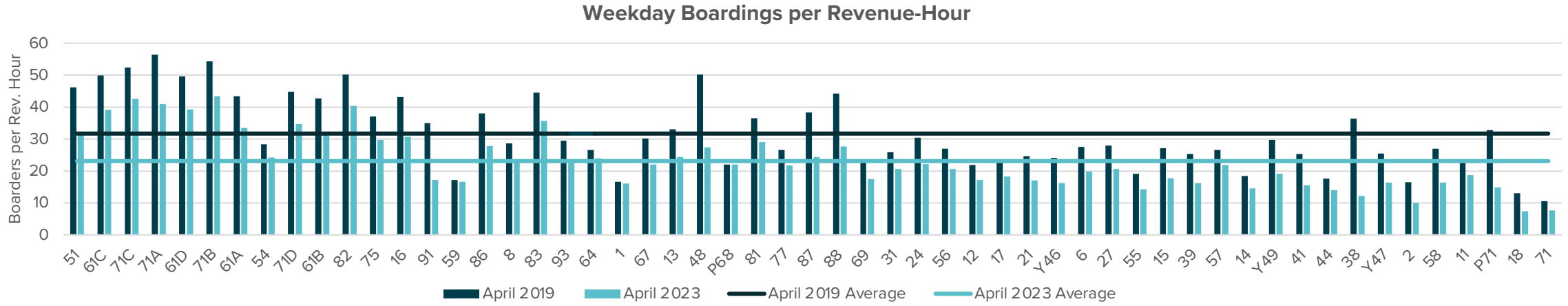
Bus Line Redesign

Pittsburgh Regional Transit

Ridership and Productivity by Route

Local Routes

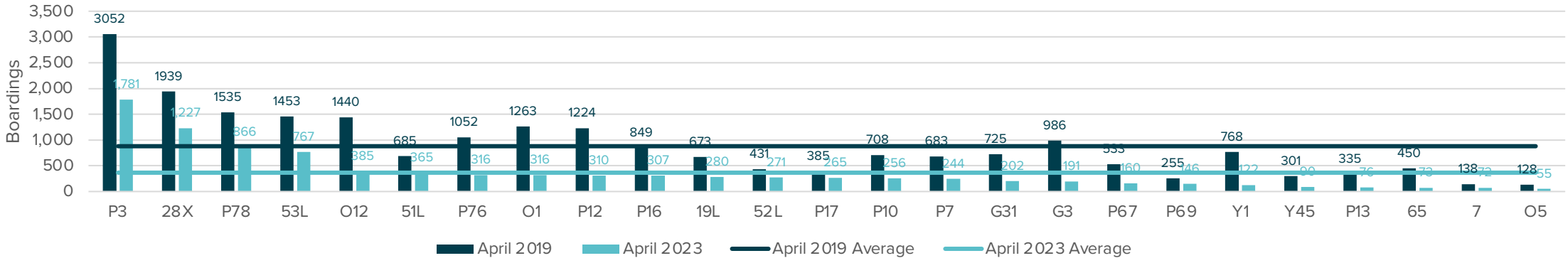




Ridership and Productivity by Route

Commuter Routes

Weekday Boardings per Route



Weekday Boardings per Revenue-Hour