

ROUTE 53

Wayne-Carpenter to Broad-Hunting Park or G-Hunting Park

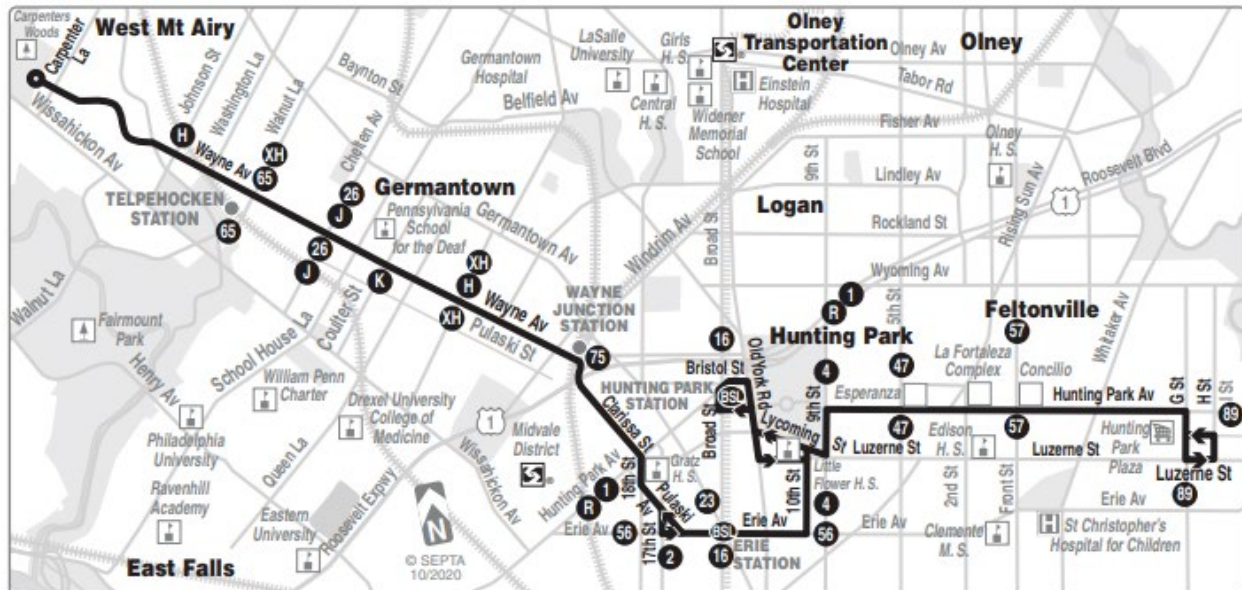
KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- *Route 53 travels between West Mount Airy and Juniata Park/Feltonville in North Philadelphia via Erie Avenue. It operates mostly on Wayne Avenue and Hunting Park Avenue and connects with the Broad Street Line, although many trips short turn at Hunting Park Station and do not serve the route's alignment east of 10th Street.*
- *Weekday ridership was just under 2,900 riders per day in Fall 2019. Route 53 operates frequent peak period service on weekdays.*
- *About one half of trips on this route were extended in 2016 eastward to the Juniata Park neighborhood, and the route would additionally benefit by further extending all trips to connect with the Market-Frankford Line. On the western end of the route, multiple services might be combined with Route 53 on Wayne Avenue.*

ROUTE OVERVIEW

Route 53 travels through North Philadelphia along Wayne Avenue, Erie Avenue, and Hunting Park Avenue (see Figure 1). It provides service between Carpenter Lane in West Mount Airy and G Street in Juniata Park. In 2016, about 50% of trips were extended eastward since the route did not previously serve Juniata Park/Feltonville. A further extension to the Market-Frankford Line for all trips on the route may be warranted.

Figure 1 | Route Map



SERVICE OVERVIEW

Schedule

Route 53 operates for 21 hours a day on all days, with service beginning at approximately 5:00 AM and ending at approximately 2:00 AM. Frequencies vary by time of day (see Table 1):

- On weekdays, service during peak periods has average headways of 15 minutes and midday service is every 22 minutes on average.
- On weekends, service frequencies average 30 minutes during the day and 40 minutes at night.

Table 1 | Schedule Statistics

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
Weekdays	4:55 AM to 1:56 AM		
Early AM	4:55 AM to 5:59 AM	23 – 29	26
AM Peak	6:00 AM to 8:59 AM	11 – 30	15
Midday	9:00 AM to 2:59 PM	13 – 25	22
PM Peak	3:00 PM to 5:59 PM	14 – 20	15
Evening	6:00 PM to 9:59 PM	15 – 41	25
Late Night	10:00 PM to 11:59 PM	39 – 61	48
Owl	Midnight to 1:56 AM	60 – 61	60
Saturdays	5:16 AM to 1:56 AM		
Day	8:00 AM to 5:59 PM	29 – 33	30
Night	Before 8:00 AM & After 5:59 PM	30 – 61	40
Sundays	5:16 AM to 1:56 AM		
Day	8:00 AM to 5:59 PM	29 – 33	30
Night	Before 8:00 AM & After 5:59 PM	30 – 61	40

Note: Span of service reflects the time the first bus begins service until the time the last bus finishes service.

Service Patterns

Route 53 has four service patterns: two in the eastbound direction and two westbound (see Table 2). About half of the trips begin and end at Broad Street and the other half have been extended to G Street in Juniata Park/Feltonville in order to provide service to that neighborhood.

Table 2 | Service Patterns

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
Northbound							
229632	G St & Hunting Park Av	Sedgwick St & Wayne Av Loop	Primary pattern	0	30	21	21
229631	Hunting Park Av & Broad St	Sedgwick St & Wayne Av Loop	Short-turn	0	27	15	15
Southbound							
229634	Sedgwick St & Wayne Av Loop	G St & Hunting Park Av	Primary pattern	0	31	21	21

229633	Sedgwick St & Wayne Av Loop	Hunting Park Av & Broad St	Short-turn	0	26	15	15
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Note: Unique stops are those not served by the primary pattern

RIDERSHIP

In Fall 2019, Route 53 carried 2,896 passengers on weekdays, 1,128 on Saturdays, and 923 on Sundays (see Table 3).

Table 3 | Fall 2019 Ridership and Productivity

	Weekdays	Saturdays	Sundays
Daily Ridership	2,896	1,128	923
Rank	63	68	61
Passengers per Revenue Vehicle Hour	48.2	31.7	26.0
Rank	40	62	72

Transfer Patterns

Many Route 53 trips involve a transfer with the Broad Street Line, and some passengers are continuing from the Broad Street Line to the Market-Frankford Line. The largest transfer rates are to and from:

- Broad Street Line (34.2% of all trips)
- Market-Frankford Line (4.9%) – no direct connection with Route 53
- Route 26 Frankford Transportation Center to Cheltenham Avenue Station (4.0%)
- Route K Ridge-Midvale to Arrott Transportation Center (3.5%)
- Route 56 23rd-Venango or Bakers Centre to Torresdale-Cottman (3.3%)

Weekend transfer patterns are similar but at a slightly lower rate.

Ridership by Stop

The stops east of Broad Street only have about 10% of route ridership activity but are only served by some trips (see Figure 2). For southbound/eastbound trips some highlights include:

- 62 passengers board at the first two stops near Wayne Avenue and Carpenter Lane
- 236 passengers board and 70 alight at Wayne Avenue at Cheltenham Avenue
- There are 152 boardings and 512 alightings at Erie Avenue at Broad Street
- 92 passengers alight at the last stop at G Street at Hunting Park Avenue

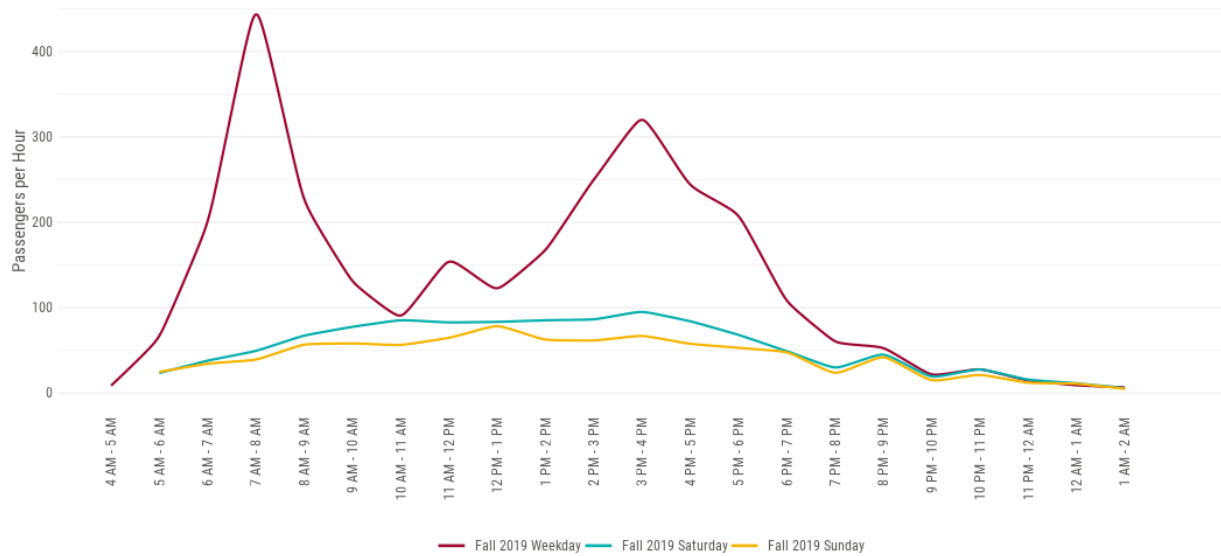
Figure 2 | Weekday Southbound Ridership by Stop


Ridership by Time of Day

Ridership by Hour

In Fall 2019, weekday ridership was strongest during the peak periods, especially during the AM Peak when ridership neared 450 riders per hour (7:00 AM) (see Figure 3). Demand was strong in the PM Peak with approximately 320 riders per hour (3:00 PM). The peak period passengers likely include many students as well as commuters. Midday ranged from 91 to 250 riders per hour. Ridership dropped significantly after 6:00 PM, with less than 30 riders per hour by 8:00 PM.

Weekend ridership is less peaked than weekdays, with the greatest demand between 8:00 AM and 4:00 PM.



Ridership and Maximum Loads by Trip

In Fall 2019, Route 53 showed a weekday average of 25 riders per trip, with ridership greatest on trips made during the peak periods (see Figure 4):

- AM Peak trips carried 20 to 65 riders per trip
- Midday trips carried 20 to 30 riders per trip
- PM Peak trips carried 20 to 50 riders per trip
- After 6:00 PM passengers per trip declined from about 35 to less than 10

There is turnover on Route 53 especially at the Broad Street Line, so maximum loads are below seating capacity on all trips (see Figure 5).

Ridership on weekends was steady between 8:00 AM and 6:00 PM with most trips carrying between 10 and 30 riders, and with Sunday ridership slightly lower than Saturdays. On both days, late night ridership was low with most trips carrying fewer than 10 riders.

Figure 4 | Fall 2019 Weekday Ridership by Trip

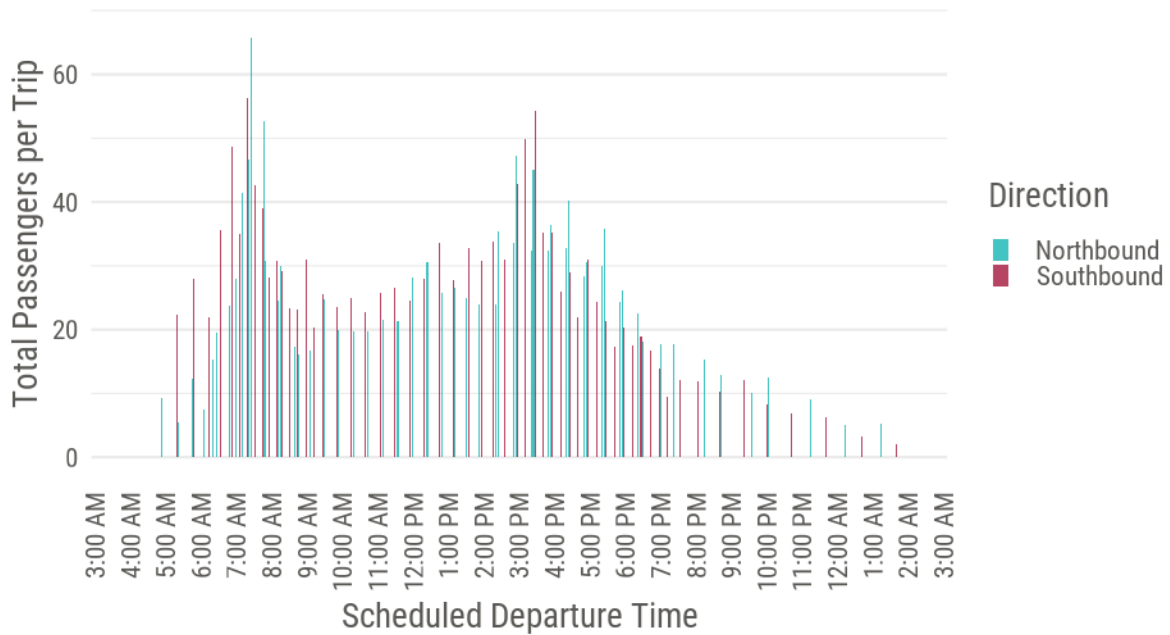
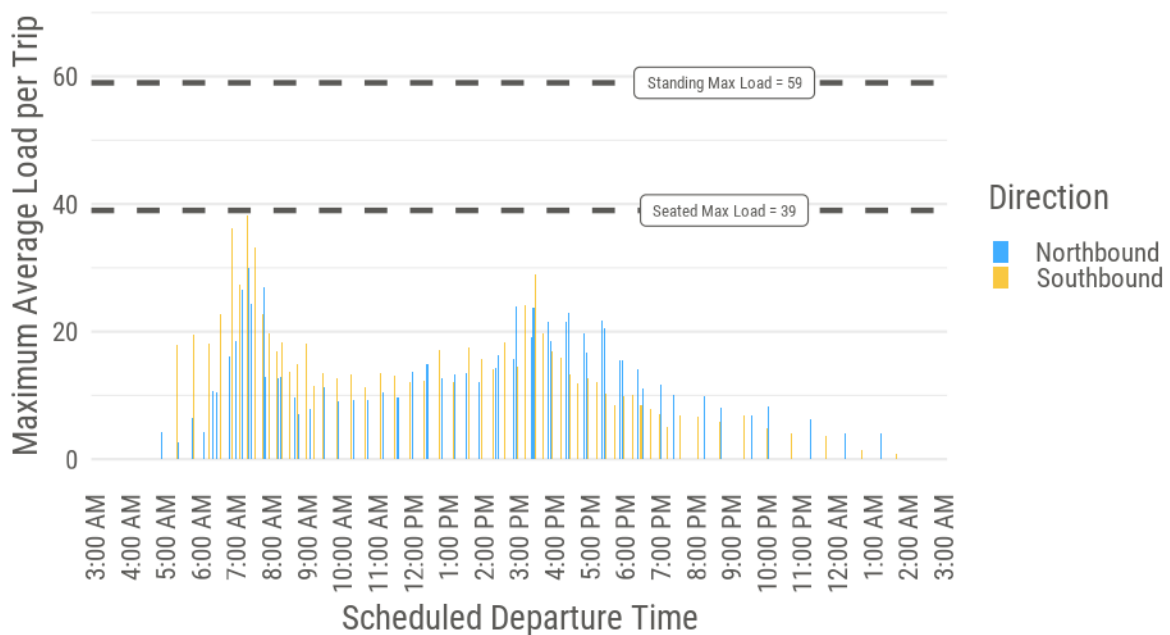


Figure 5 | Fall 2019 Weekday Maximum Loads by Trip



ON-TIME PERFORMANCE AND RUNNING TIMES

On-Time Performance

In Fall 2019, Route 53’s on-time performance was below standard with 75% of weekday trips meeting SEPTA’s standard. On weekends 80% of Saturday trips and 76% of Sunday trips

meeting SEPTA’s standard (see Table 4). Trips were more likely to be early than late on all days, and particularly on weekends.

Table 4 | Fall 2019 On-Time Performance

	Early (>2 Mins Early)	On Time (<2 Mins Early to 6 Mins Late)	Late (>6 Mins Late)	Missed Trips
Goal		80%		
Fall 2019 Actual				
Weekday	14.3%	75.2%	10.4%	2.7%
Saturday	16.9%	80.0%	3.1%	2.4%
Sunday	19.2%	76.3%	4.5%	1.2%

Note: On-time percentages are for trips that run (do not include dropped trips)

AVERAGE SPEEDS AND STOP SPACING

Weekday speeds on Route 53 are slow, with buses on most of the route operating between 8 and 12 mph during the PM Peak (see Figure 6). One segment measured less than 8 mph along Wayne Avenue, Clarissa Street, and Erie Avenue from West Manheim Street to North Broad Street. Speeds are faster on the westernmost segment and on the relatively new segment east of Broad Street.

Slow speeds result in part from close stop spacing along most of the route. Stops on Route 53 are spaced between 8 and 11 stops per mile from the northern terminal to North Broad Street (see Figure 7). Stops are spaced further apart on the recently added extension east of Broad Street.

Figure 6 | Fall 2019 PM Peak Northbound Speeds

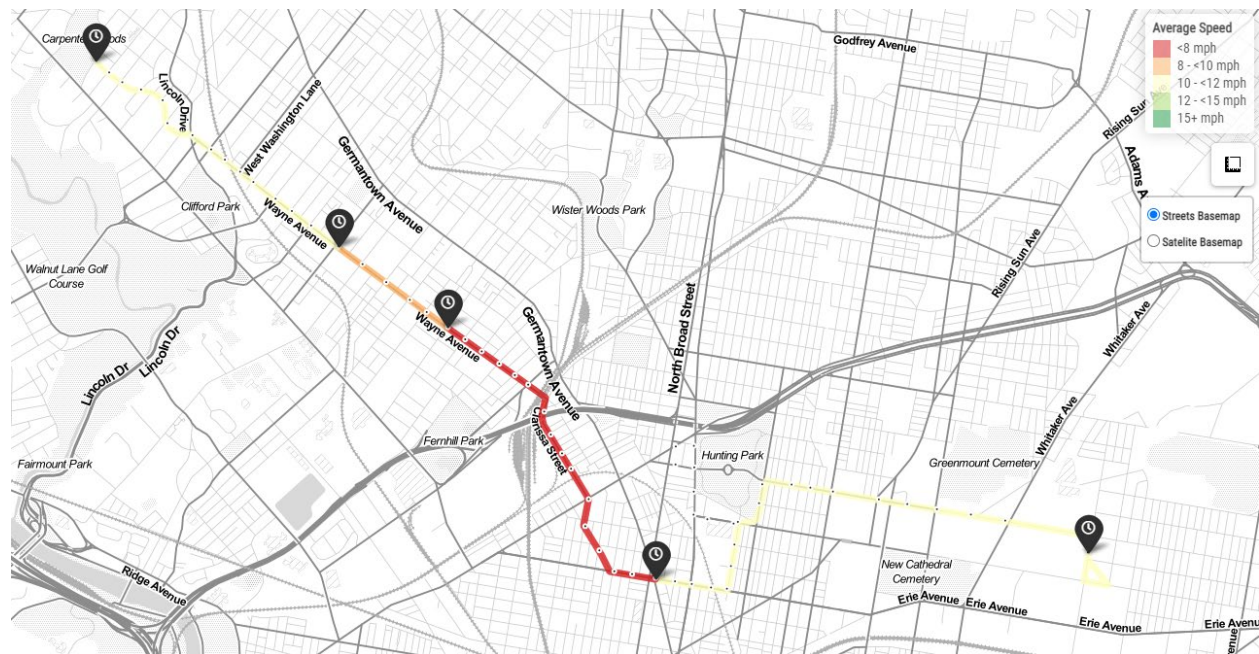
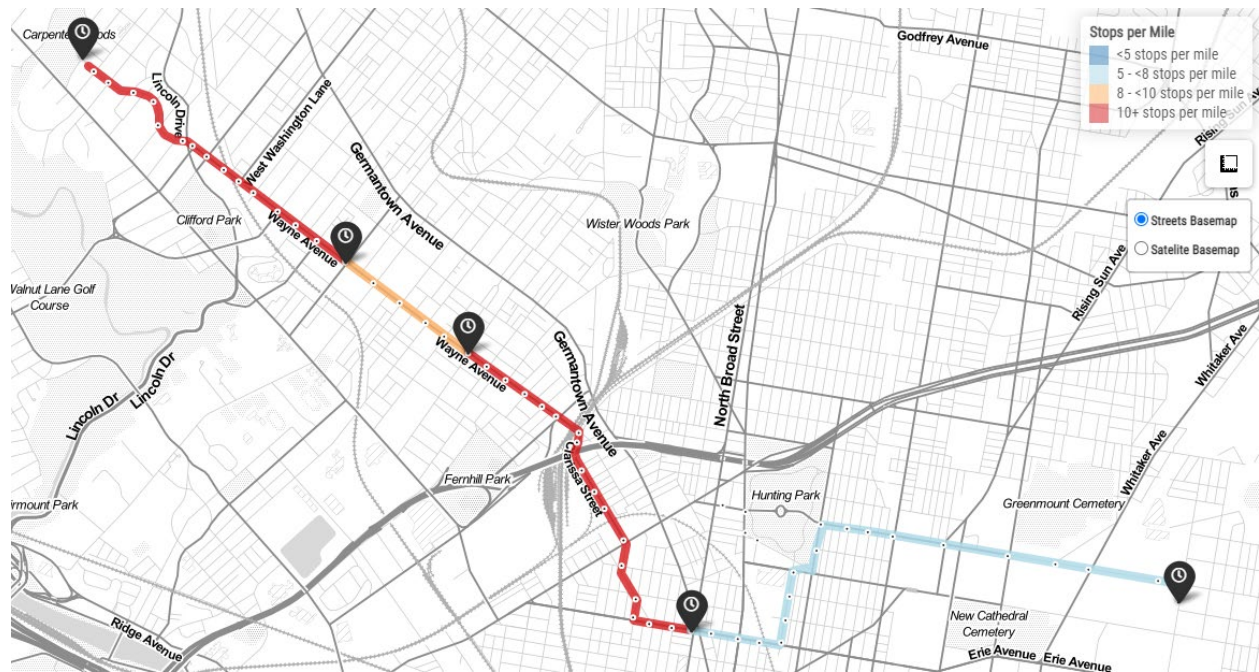


Figure 7 | Stop Spacing by Route Segment



RIDER CHARACTERISTICS

As compared with SEPTA’s entire service area, Route 53 riders are much more likely to be Black and somewhat more likely to be lower income and lack access to a vehicle (see Table 5).

Table 5 | Rider Characteristics

	Route 53 Riders	Systemwide Average
Median Household Income	\$29,831	\$32,713
Share in Poverty	36%	30%
Ethnicity		
White	23%	38%
Black	63%	46%
Hispanic	11%	10%
Other	3%	7%
Without a Vehicle	44%	37%
Seniors	17%	15%
With a Disability	3%	2%

SERVICE IMPROVEMENT OPPORTUNITIES

Opportunities to strengthen Route 53 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- Consolidate with Route 89:** Extending Route 53 to Arrott Transportation Center would enable more connections for riders and replace the northern segment of Route 89.

- **Extend All Trips to Market-Frankford Line:** The 2016 eastern extension to Juniata Park/Feltonville has been well-received and is reasonably productive. Operating all trips consistently through this neighborhood and connecting Route 53 with the Market-Frankford Line would likely attract more ridership.
- **Operate via Hunting Park Station instead of Erie Station in Both Directions:** Route 53's alignment could be streamlined near Broad Street by operating via Hunting Park Station instead of Erie Station in both directions. This change would make Route 53's alignment shorter and would enhance connections to Route R. However, this change would make connections with other routes serving Erie Station (such as Route 56) more difficult.
- **Consolidate Duplicative Service West of Broad Street:** An effort to consolidate services could support bus priority measures on Wayne Avenue and enable more frequent service on fewer corridors.