

ROUTE 29

Pier 70 to 33rd-Dickinson

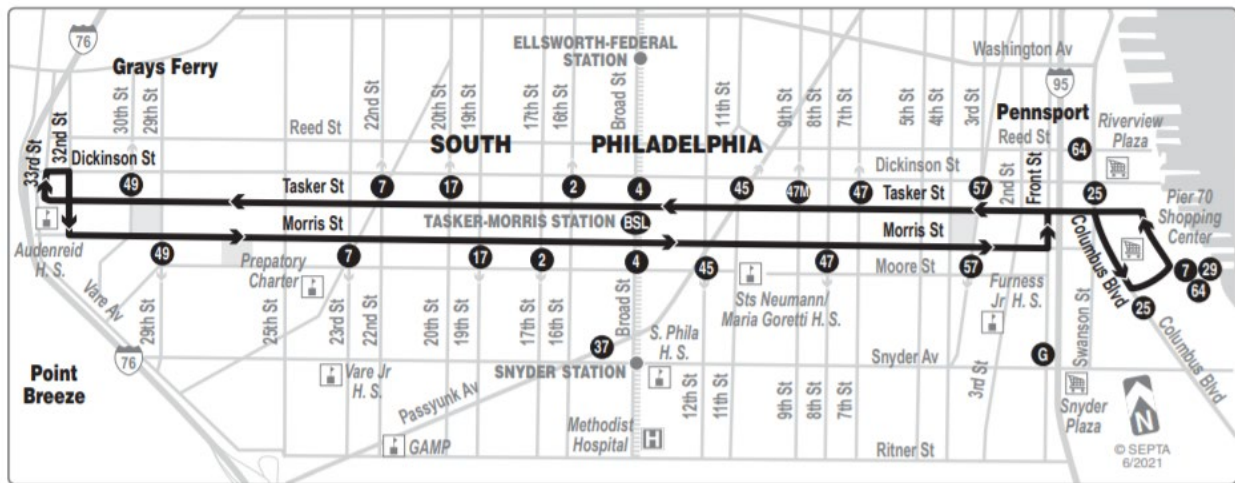
KEY SERVICE CHARACTERISTICS, ISSUES, AND OPPORTUNITIES

- *Route 29 provides east-west crosstown service in South Philadelphia with many riders transferring to the Broad Street Line near the middle of the route. Although total ridership is not that high, the route is very productive as measured by passengers per vehicle hour.*
- *The route’s on-time performance is strong which is probably mostly attributable to its relatively short 3.4-mile alignment. This route length may enable SEPTA to extend the route across the Schuylkill River to increase transfer opportunities.*
- *Like many urban routes, Route 29 operates slowly on narrow streets. A combination of increased stop spacing, and better parking/curb management could improve bus speed.*

ROUTE OVERVIEW

Route 29 provides east-west crosstown service along Tasker Street and Morris Street in South Philadelphia (see Figure 1). The alignment is simple and direct, and many riders transfer to the Broad Street Line near the middle of the route. Although total ridership is not that high, it is one of the most productive weekday SEPTA bus routes as measured by riders per vehicle hour.

Figure 1 | Route Map



SERVICE OVERVIEW

Schedule

Route 29 operates from approximately 5:15 AM to 2:48 AM on all days of the week. Frequencies vary by time of day (see Table 1):

- On weekdays, peak period frequencies are roughly every 8-10 minutes. Midday frequencies are approximately every 13 minutes on average.

- On weekend days, service frequencies average 22 minutes during the day on Saturday and every 32-36 minutes at other times.

Table 1 | Schedule Statistics

Service Day	Span Of Service	Frequency (Range)	Frequency (Average)
Weekdays	5:08 AM to 2:48 AM		
Early AM	5:08 AM - 5:59 AM	20 - 30	26
AM Peak	6:00 AM - 8:59 AM	5 - 21	8
Midday	9:00 AM - 2:59 PM	7 - 18	13
PM Peak	3:00 PM - 5:59 PM	2 - 15	10
Evening	6:00 PM - 9:59 PM	13 - 30	21
Late Night	10:00 PM to 11:59 PM	29-37	32
Owl	Midnight to 2:48 AM	28-45	41
Saturdays	5:17 AM to 2:48 AM		
Day	8:00 AM to 5:59 PM	19-39	22
Night	Before 8:00 AM & After 5:59 PM	20-47	33
Sundays	5:19 AM to 2:48 AM		
Day	8:00 AM to 5:59 PM	29-41	32
Night	Before 8:00 AM & After 5:59 PM	30-47	36

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

Service Patterns

Route 29 has only two service patterns, one in each direction. All trips on all days use the primary pattern (see Table 2).

Table 2 | Service Patterns

Pattern	Origin	Destination	Unique Feature	Unique Stops	Trips Per Day		
					Wkd	Sat	Sun
Eastbound							
229468	33rd St & Dickinson St Loop	Pier 70 Walmart & Home Depot	Primary Pattern	0	92	50	39
Westbound							
229469	Pier 70 Walmart & Home Depot	33rd St & Dickinson St Loop	Primary Pattern	0	86	48	37

Note: Unique stops are those not served by the primary pattern

RIDERSHIP

In Fall 2019, Route 29 carried 4,754 passengers on weekdays, 2,000 on Saturdays, and 1,273 on Sundays (see Table 3). Although total ridership is not that high, the route is short and very productive as measured by passengers per vehicle hour, particularly on weekdays and Saturdays.

Table 3 | Fall 2019 Ridership and Productivity

	Weekdays	Saturdays	Sundays
Daily Ridership	4,754	2,000	1,273
Rank	45	49	53
Passengers per Revenue Vehicle Hour	73.1	60.3	47.3
Rank	6	10	26

Transfer Patterns

The single largest transfer percentage is with the Broad Street Line, and many other Route 29 transfers are with connecting north-south service. The largest transfer volumes are to and from:

- Broad Street Line (34.3% of all trips)
- Route 17 (Front Street and Market Street to 20th Street and Johnston Street and Broad Street and Pattison Avenue) (5.4%)
- Market-Frankford Line (5.2%)
- Route 45 (Broad Street and Oregon Avenue to Center City) (4.0%)
- Route 47 (Whitman Plaza to 5th Street and Godfrey Avenue) (4.0%)

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

Ridership by Stop

Route 29 has consistent demand at stops all along the route, with somewhat greater activity in the western part of South Philadelphia than the eastern part. However, the eastern terminus at Pier 70 is a stronger anchor than the western terminus. For eastbound weekday trips, some highlights include:

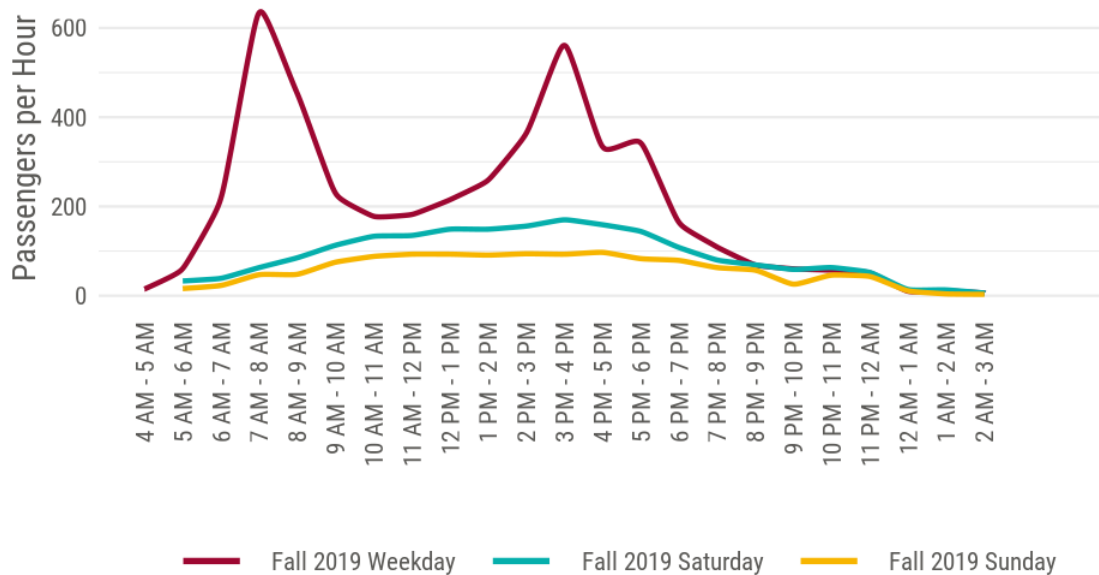
- 100 riders board at the origin at 33rd Street and Dickinson Avenue
- There are 193 boardings and 10 alightings at 27th Street and Morris Street
- 420 riders board and 858 alight at Broad Street and Morris Street
- There are 24 boardings and 131 alightings at 7th Street and Morris Street
- 268 riders alight at the final Pier 70 stop

Figure 2 | Weekday Eastbound Ridership by Stop


Ridership by Time of Day

Ridership by Hour

In Fall 2019, weekday ridership was very peaked with the highest ridership during the AM peak. Ridership during the PM peak was highest between 2:00-4:00 PM, indicating that students are likely a significant percentage of passengers (see Figure 3).

Figure 3 | Ridership by Hour: Fall 2019


Midday ridership, on a per hour basis, was less than half of the peak periods. Evening ridership was much lower especially after 6:00 PM. Weekend ridership was steadier throughout the day although much lower than weekdays.

Ridership and Maximum Loads by Trip

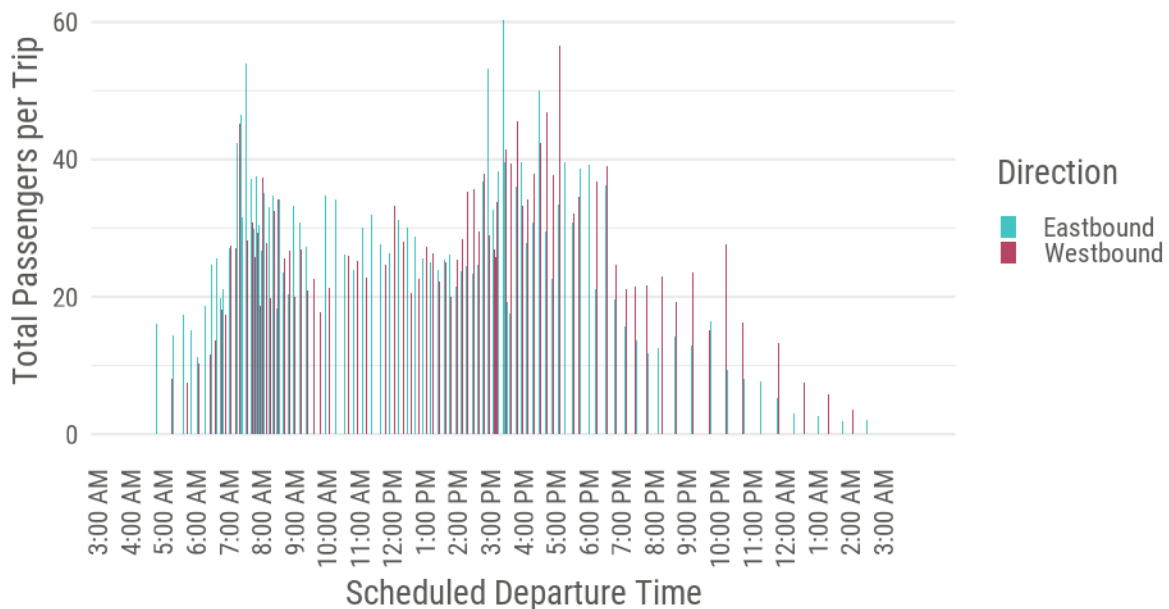
In Fall 2019, weekday ridership per trip was moderate on most trips (see Figure 4):

- Most peak period trips carried 35 to 50 passengers with a few trips having higher ridership probably due to students
- Midday trips carried 20 to 35 passengers
- After 6:00 PM, ridership per trip decreased from 40 passengers to around 25
- After 11:00 PM ridership continued to drop to less than 10 per trip

The turnover along the route, particularly at Broad Street, meant that no trips had standing loads on average.

Weekend trips carry 20-35 passengers through much of the day and less during early mornings and late evenings. All weekend trips have loads within the seating capacity.

Figure 4 | Fall 2019 Weekday Ridership by Trip



ON-TIME PERFORMANCE AND RUNNING TIMES

On-Time Performance

In Fall 2019, Route 29’s on-time performance was 84.7 percent on weekdays, 82.0 percent on Saturdays, and 87.2 percent on Sundays (see Table 4). This exceeds the SEPTA standard on all days and is likely attributable to the relatively short 3.4-mile alignment and the route’s location which avoids Center City traffic congestion.

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	5.7%	84.7%	9.6%	2.8%
Saturday	4.3%	82.0%	13.7%	3.7%
Sunday	7.2%	87.2%	5.6%	3.9%

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

AVERAGE SPEEDS AND STOP SPACING

On weekdays during the PM Peak, Route 29 travels at less than 8 mph in some segments east of Broad Street and 8-10 mph elsewhere (see Figure 5). Slow speeds are attributable to using one-lane narrow roads (Tasker Street and Morris Street) as well as stop spacing along the route. Route 29 has an average of 11 stops per mile over its entire length; but some segments have more than 12 stops per mile (see Figure 6).

Figure 5 | Fall 2019 PM Peak Eastbound Speeds

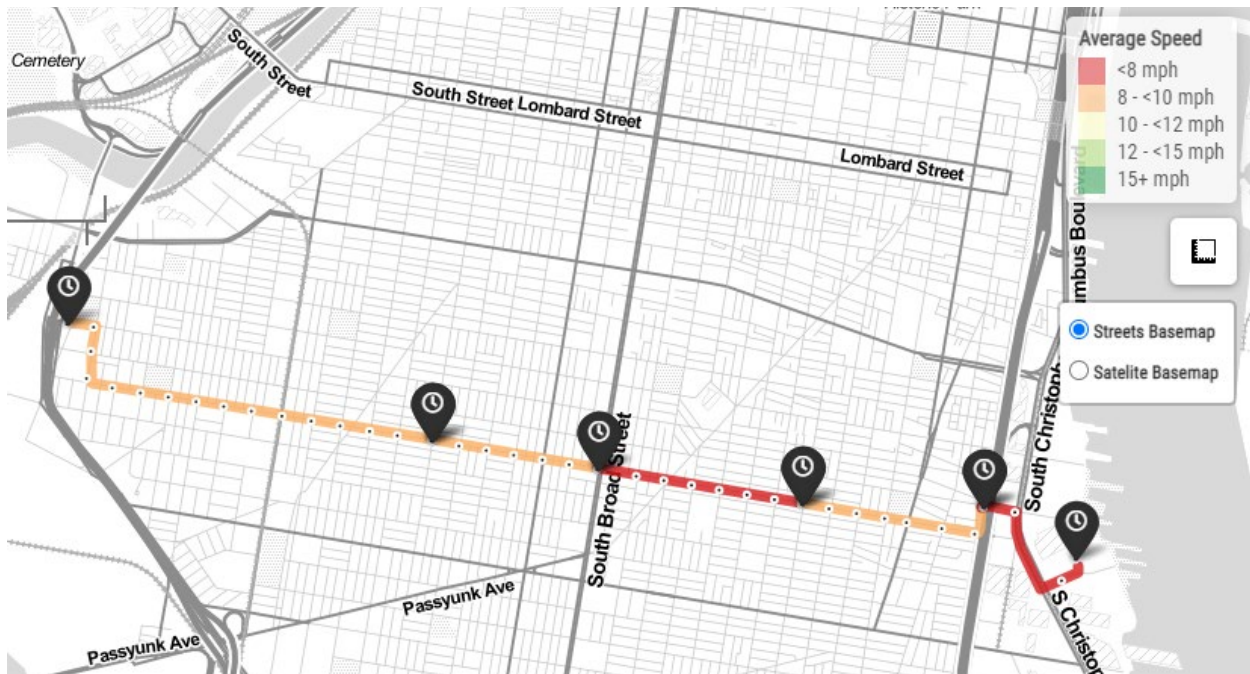
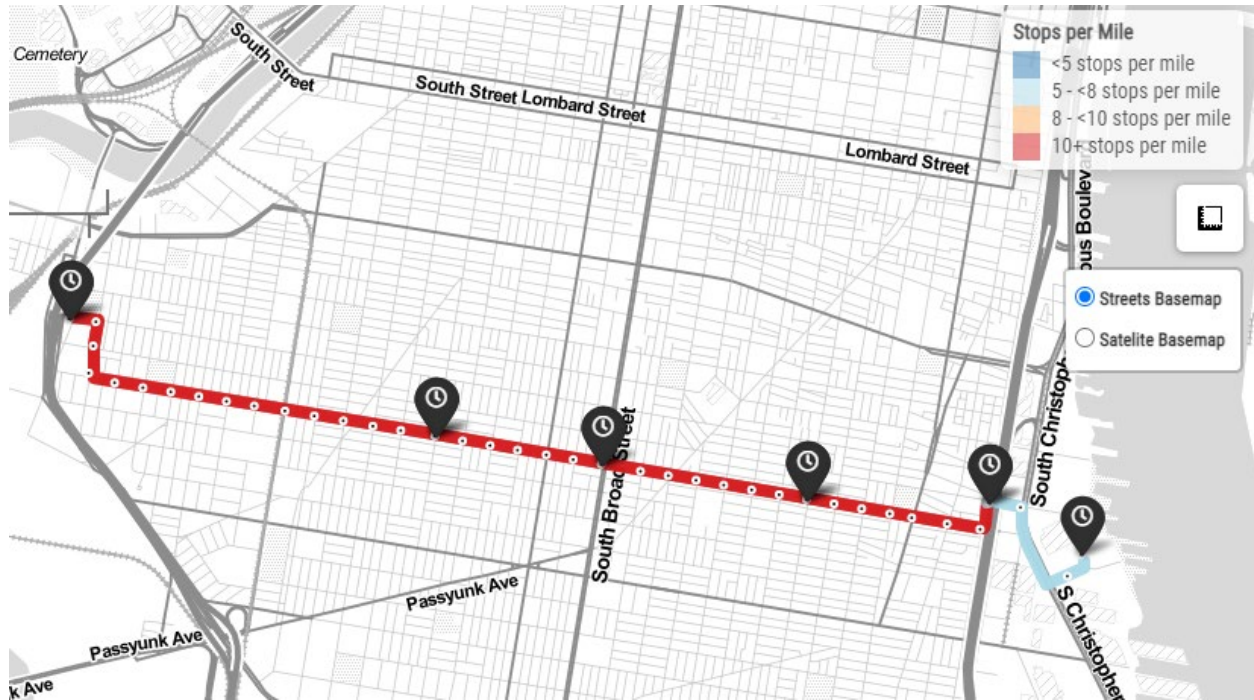


Figure 6 | Stop Spacing by Route Segment



RIDER CHARACTERISTICS

Route 29’s rider demographics are generally typical of SEPTA’s service area as a whole (see Table 5). The route’s riders are somewhat more likely to be without access to a vehicle and to have a disability.

Table 5 | Rider Characteristics

	Route 29 Riders	Systemwide Average
Median Household Income	\$29,270	\$32,713
Share in Poverty	35%	30%
Ethnicity		
White	38%	38%
Black	47%	46%
Hispanic	10%	10%
Other	5%	7%
Without a Vehicle	47%	37%
Seniors	19%	15%
With a Disability	3%	2%

SERVICE IMPROVEMENT OPPORTUNITIES

Opportunities to strengthen Route 29 are listed below. Some suggestions may be contradictory, as there is usually more than one approach to improving a route.

- **Extend Route to 49th Street and Woodland Avenue or to Baltimore Avenue corridor:** Extending the route across the Grays Ferry Avenue bridge into southwest Philadelphia would increase transfer opportunities and keep the route to an acceptable length. The current western terminus has no connecting service and is not a strong anchor otherwise. A large new car dealership near the existing site at 33rd Street and Dickinson Street could also affect operations. Extending the route to the Baltimore Avenue corridor may be a stronger anchor. There is also potential to partner with PIDC as they develop that portion of Lower Schuylkill to create a strong terminus or have the route terminate at the trolley facility as it will be in the area as well. Both of these locations would help connect passengers with new job opportunities as these sites are developed.
- **Collaborate with City on Parking/Curb Management:** Although the route currently has good on-time performance, Route 29's speed could be improved with better management of parking and curb operations. New technologies and policies may enable bus cameras to assist with these improvements.