

Whatcom Transportation Authority

Service Performance Report

2018



Table of Contents

01 Overview

Comparison by Service Mode
% of Total
Boardings Comparison

04 Fixed Route Overview

History
Change

07 Productivity

Standards
Change

11 Fares

Revenue by Fare Type
Bus Pass Cost Effectiveness
Boardings by Fare Type
Cash vs Passes

15 On-Time Performance

16 Data by Route

Boardings
Revenue Hours

18 Paratransit

Overview
Change

20 Zone Service

Overview
Change

22 Vanpool Program

Overview
Change

Overview

Whatcom Transportation Authority (WTA) provides public transportation services throughout Whatcom County. Our services include fixed route, paratransit, zone service and a vanpool program.





WTA's fixed route service features 28 bus routes, including four high-frequency corridors within Bellingham. Service is offered seven days a week, with more limited service on Saturdays and Sundays.

Paratransit service provides curb-to-curb mini-bus service for people whose disability prevents them from riding fixed route buses.

Zone service provides limited transit service to rural areas of Whatcom County. Service is only available to each zone on certain days of the week and anyone within the designated area can request a ride.

The vanpool program allows groups of commuters to "lease" a WTA van on a regular, ongoing basis. Fares are based on the number of daily round-trip miles and cover all expenses, including fuel, insurance, maintenance, etc.

The table below shows the 2018 totals for each type of service WTA offers.

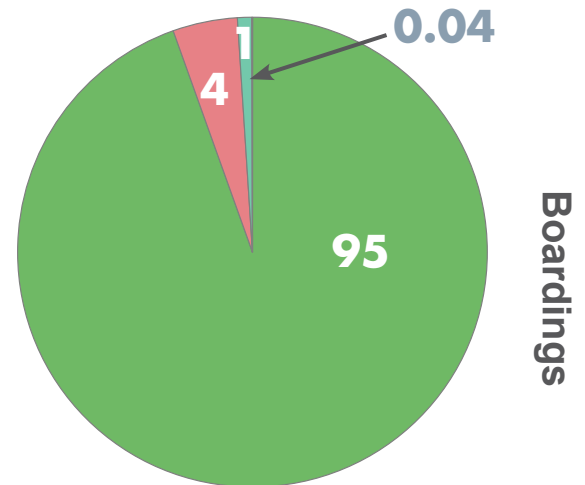
2018	Fixed Route	Paratransit	Zone	Vanpool
				
Boardings	4,542,536	213,955	1,753	47,591
Revenue Hours	148,483	72,242	1,034	7,502
Revenue Miles	2,100,487	929,655	23,685	406,554
Passenger Miles	13,012,492	1,169,065	29,995	1,977,967
Boardings per Hour	30.6	3.0	1.7	6.3
Passenger Miles per Hour	87.6	16.2	29.0	263.7
Passenger Miles per Boarding	2.9	5.5	17.1	41.6

Percentage of Total

Boardings

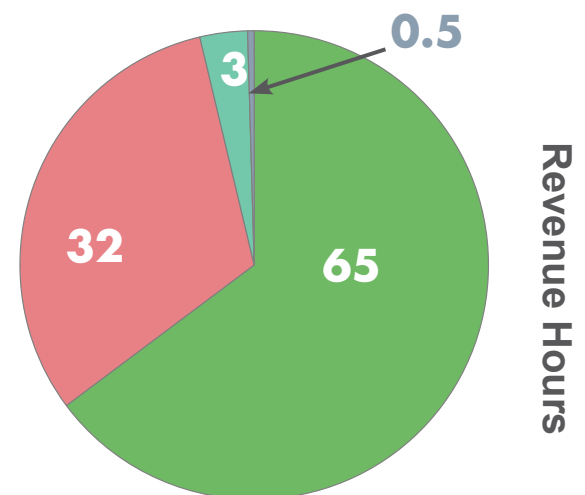
A boarding is counted each time a passenger steps onto a fixed route, paratransit, vanpool or zone service vehicle. Fixed route service represents 95% of all boardings.

2018



Revenue Hours

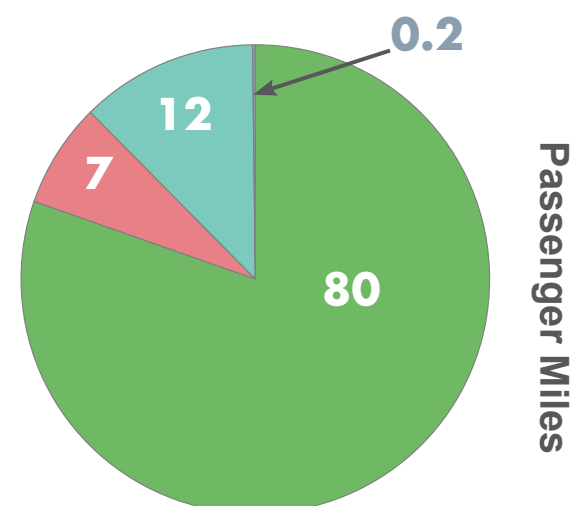
Revenue hours are number of hours the bus is in service, including layover time. Paratransit accounts for 4% of all boardings, yet it provides 32% of all revenue hours.



Passenger Miles

Passenger Miles is the distance ridden by passengers. For example, ten passengers riding for two miles equals 20 passenger miles. Although vanpool makes up only 1% of all boardings, it equals 12% of all passenger miles.

% of total



Boardings Comparison

2018 vs. 2017

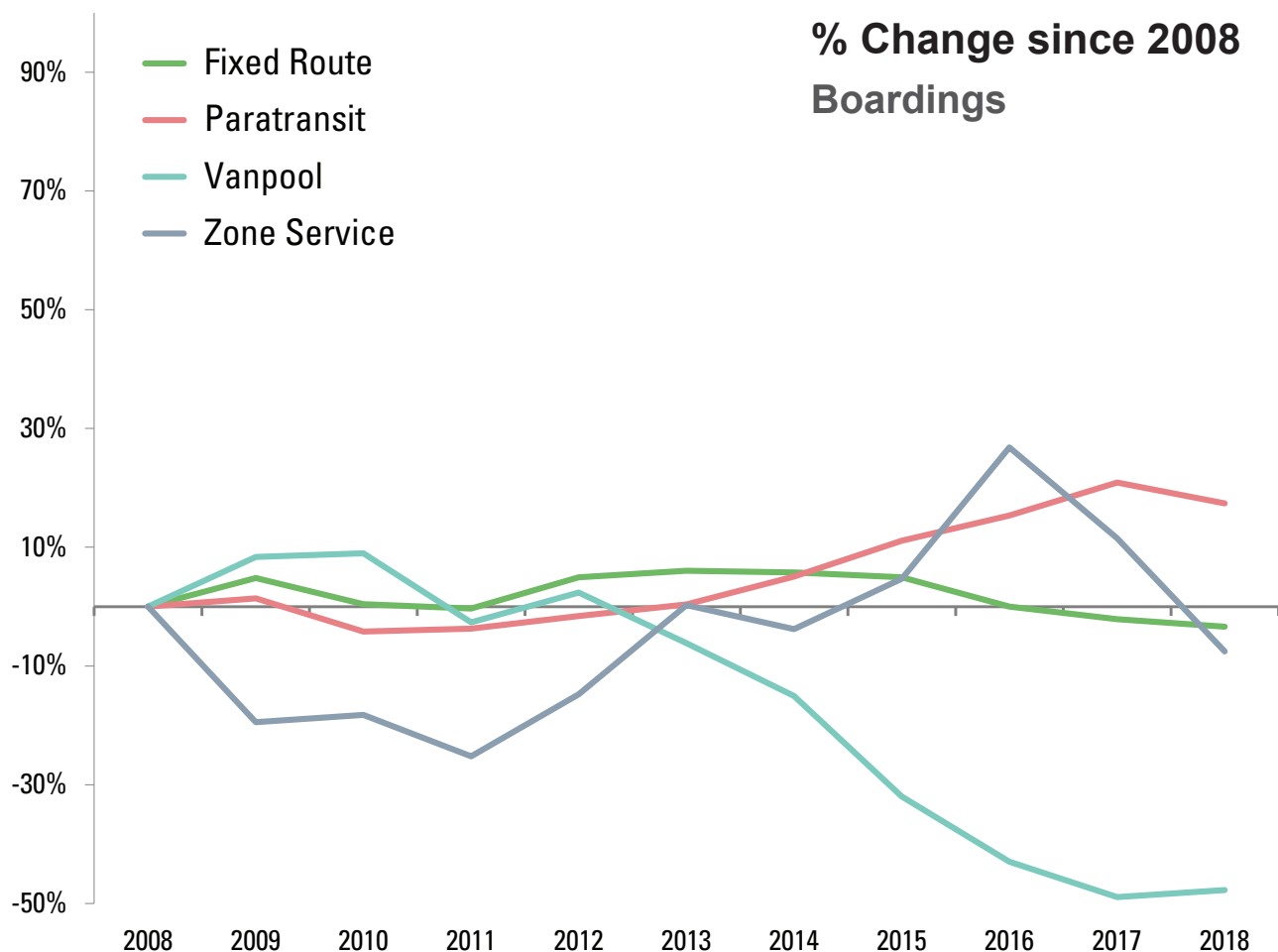
Fixed Route, Paratransit and Zone service had decreases in boardings of -1%, -3% and -17% respectively. Vanpool had an increase in boardings of 2%.

	2018	2017	Diff.
Fixed Route	4,542,536	4,602,021	-1%
Paratransit	213,955	220,327	-3%
Vanpool	47,591	46,492	2%
Zone Service	1,753	2,114	-17%

10-Year Change

Of the four types of service, paratransit is the only mode where boardings have increased compared to 2008. The graph below shows the change in boardings since 2008.

	2018	2008	Diff.
Fixed Route	4,542,536	4,701,884	-3%
Paratransit	213,955	182,245	17%
Vanpool	47,591	91,042	-48%
Zone Service	1,753	1,896	-8%



Fixed Route Overview

Fixed routes provide service to designated bus stops using large transit buses. WTA offers 28 fixed routes. Service is offered seven days a week, with more limited service on Saturdays and Sundays.

In 2018, there were 59,485 fewer boardings than 2017, following a national trend.

The data for passenger miles is collected by surveyors through a random sampling of all trips. Total passenger miles was down -2%.

In 2018, revenue hours were up 4%. WTA implemented 15 minute service on Saturdays on the Green and Gold Go Lines in 2018.

	2018	2017	Diff.
Boardings	4,542,536	4,602,021	-1%
Revenue Hours	148,483	142,321	4%
Revenue Miles	2,100,487	2,014,058	4%
Passenger Miles	13,012,492	13,276,920	-2%
Boardings per Hour	30.6	32.3	-5%
Pass. Mi. per Hour	87.6	93.3	-6%
Pass. Mi. per Boarding	2.9	2.9	0%

-1%

decrease in
boardings
from 2017.

30.6

boardings
per hour in
2018.

2.9

passenger miles
per **boardings**
in 2018.



Fixed Route History

In 2002, voters approved a WTA sales tax increase of 0.6 percent which offset lost revenue from Motor Vehicle Excise taxes.

In 2005, WTA introduced major changes to its service, including the introduction of high frequency corridors (Go Lines) and expanded service to a number of areas.

In 2007, Western Washington University (WWU) and WTA entered into an agreement for a universal bus pass for students.

In 2008, WTA expanded service by 10%. This included creation of a new GO Line, extension of an existing GO Line, and additional service to WWU, Blaine, Birch Bay, Lynden and Ferndale.

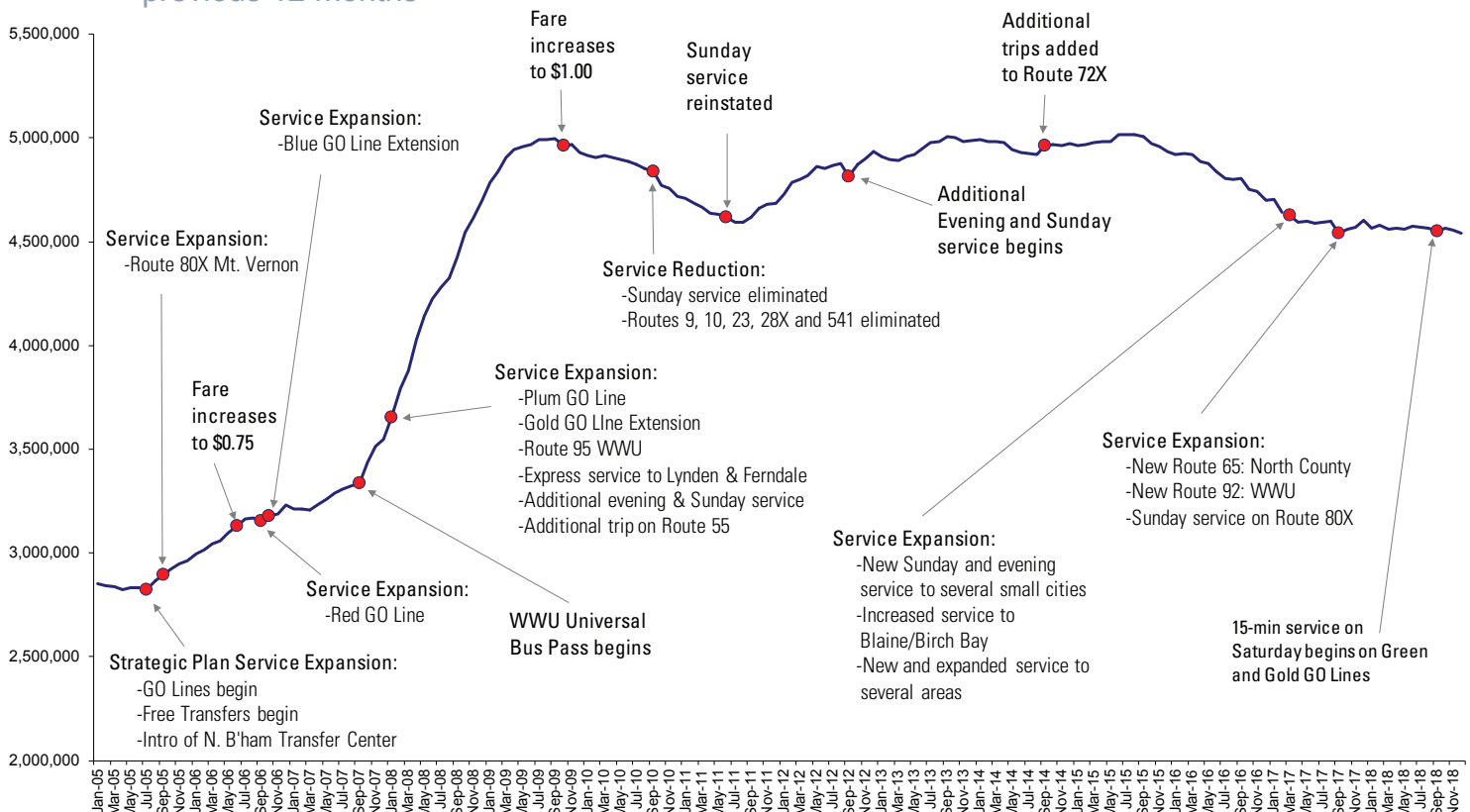
In 2010, a 14% service cut was necessitated by reduced revenues due to the recession. Approximately half of that was restored less than a year later due to funding from Bellingham's Transportation Benefit District.

In 2017, WTA implemented two service changes that increased service by 13%. This included new Sunday and evening service to Lynden, Ferndale, Lummi Nation/Gooseberry Point, and Sudden Valley. WTA also increased service to Blaine/Birch Bay and WWU as well as added Sunday service to Mt. Vernon.

The graph below shows a rolling 12 month total boardings with major milestones since 2005.

Boardings (2005-2018)

data points equal the sum of previous 12 months



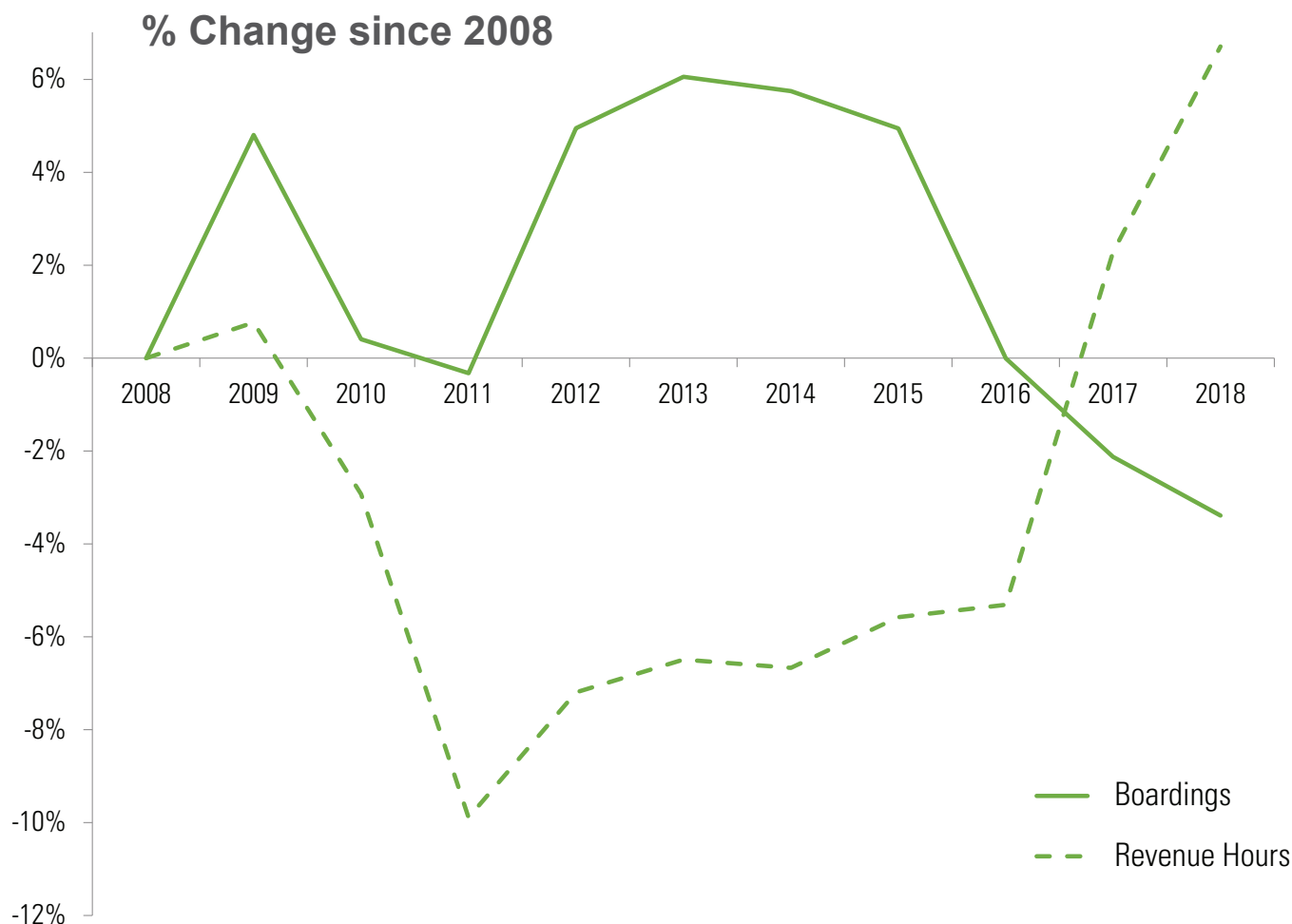
Fixed Route Change

10-Year Change

Boardings and Revenue Hours have fluctuated over the past ten years. As a result of the 2008 Financial Crisis, WTA eliminated five routes and Sunday service on September 19, 2010. Sunday service was reinstated in the City of Bellingham as a

purchased service through a Transportation Benefit District (TBD) tax on June 12, 2011. As Whatcom County has recovered from the financial crisis, WTA has been able to add revenue hours, finally surpassing 2008 annual revenue hours in 2017. Although Revenue Hours have increased 7%, WTA has seen a 3% decrease in Boardings over the past 10 years. This decrease is on par with national trends, with the exception of a couple of major metropolitan areas, transit ridership has decreased an average of 7% over the past decade.

	2018	2008	Diff.
Boardings	4,542,536	4,701,884	-3%
Rev. Hours	148,483	139,149	7%



Fixed Route Productivity

Productivity is monitored for each route, as well as the system as a whole, in two ways: boardings per revenue hour and passenger miles per hour.

Boardings per revenue hour is a good measure of how efficient a route is in urban areas. Passenger miles per hour is an important measurement for routes that travel through rural areas. Rural routes have passengers traveling long distances and fewer passengers getting on and off.

Below is a route productivity matrix which evaluates each route by both standards.

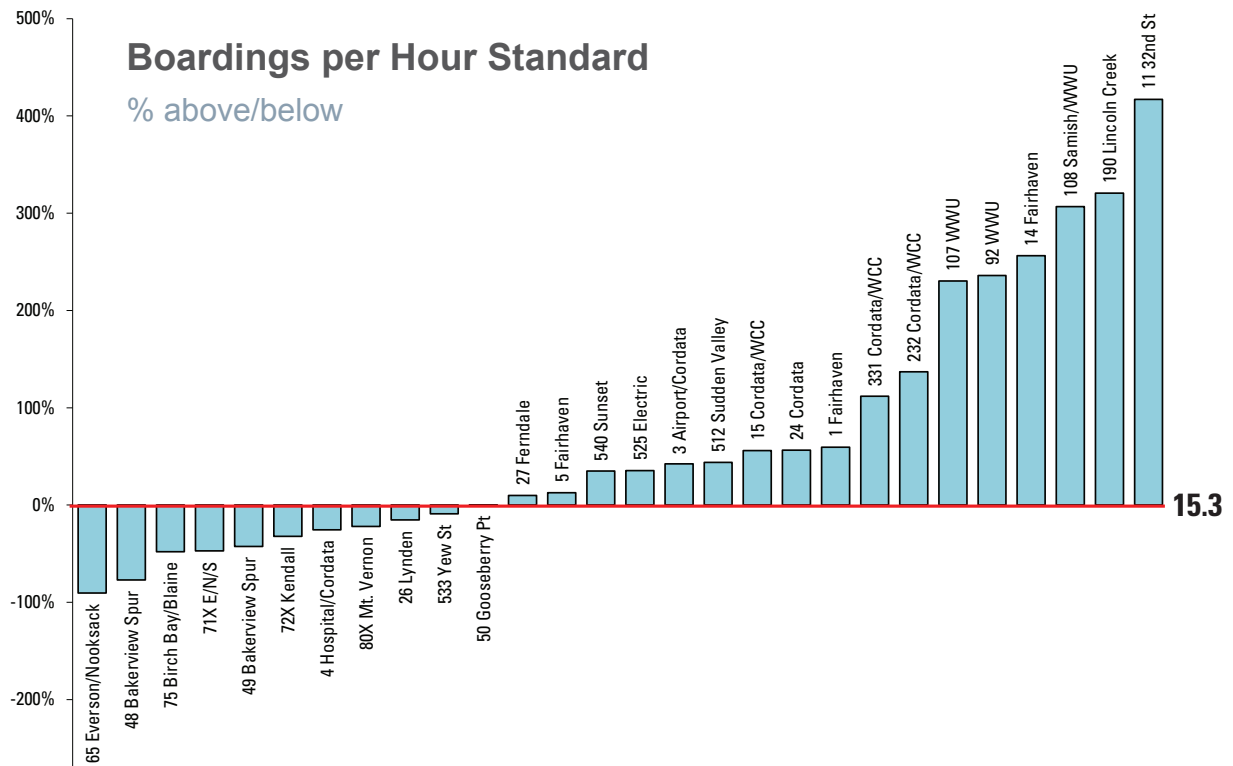
As stated in the 2005 Strategic Plan, a route is considered failing if it is below both 50% of average boardings per revenue hour *and* 75% of average passenger miles per revenue hour for a given year. The routes in the black box are those routes that are considered failing.

Routes displayed in the grey boxes are considered on the "watch list". A route is on the watch list if it is below both 75% of average boardings per revenue hour *and* 100% of average passenger miles per revenue hour.

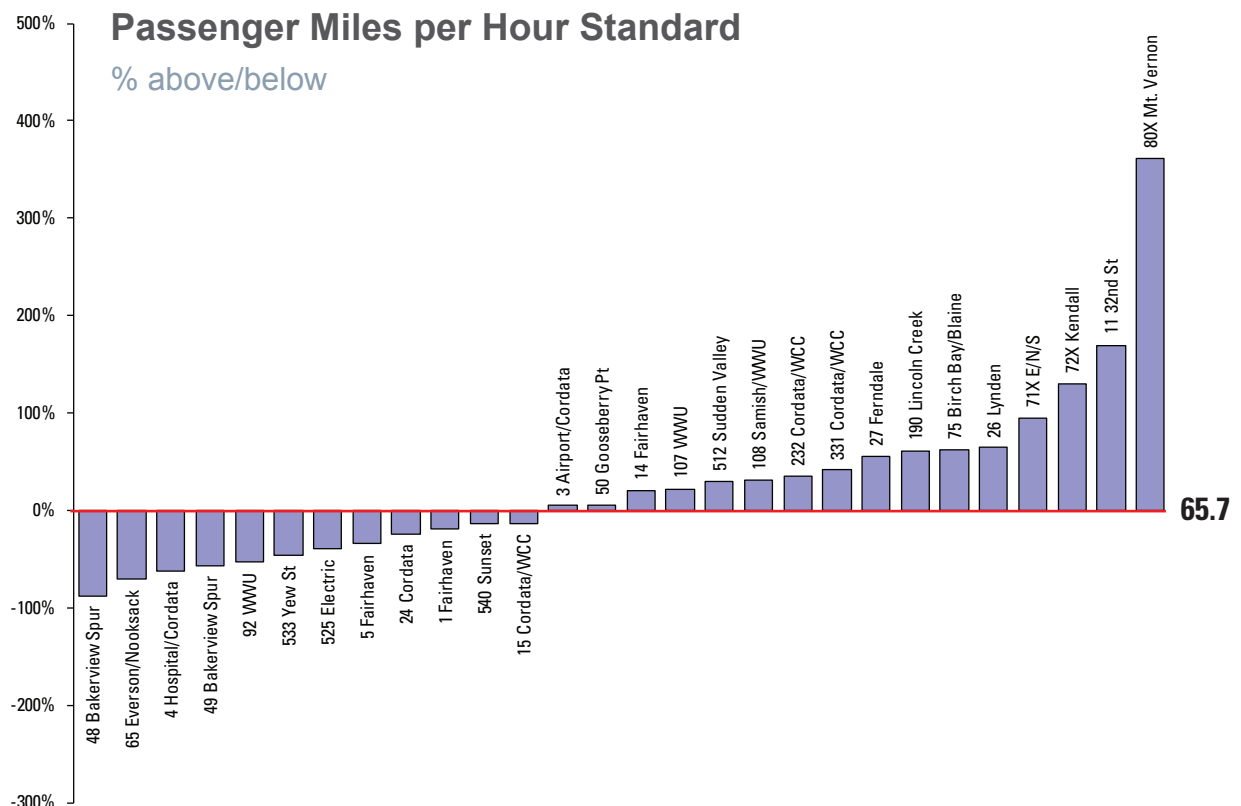
		Boardings per Hour		
		Less than 50% (0-15.2)	Between 50-74% (15.3-22.9)	75% & Above (23.0+)
Passenger Miles per Hour	100% & Above (87.6+)	26 Lynden 71X E/N/S 72X Kendall 75 Blaine/Birch Bay 80X Mt. Vernon	27 Ferndale	11 WWU 190 Lincoln St 232 Cordata/WCC 331 Cordata/WCC
	Between 75-99% (65.6-87.5)	NONE	3 Airport/Cordata 50 Gooseberry Pt 512 Sudden Valley	14 Fairhaven 107 WWU/Samish 108 Samish/WWU
	Less than 75% (0-65.5)	4 Hospital 48 Bakerview Spur 49 Bakerview Spur 65 Everson/Nooksack 533 Yew St	5 Fairhaven 525 Electric 540 Sunset	1 Fairhaven 15 Cordata/WCC 24 Cordata 92 WWU

Productivity Standards

The service standard for boardings per hour is at least **50%** of the system average of **30.6**.

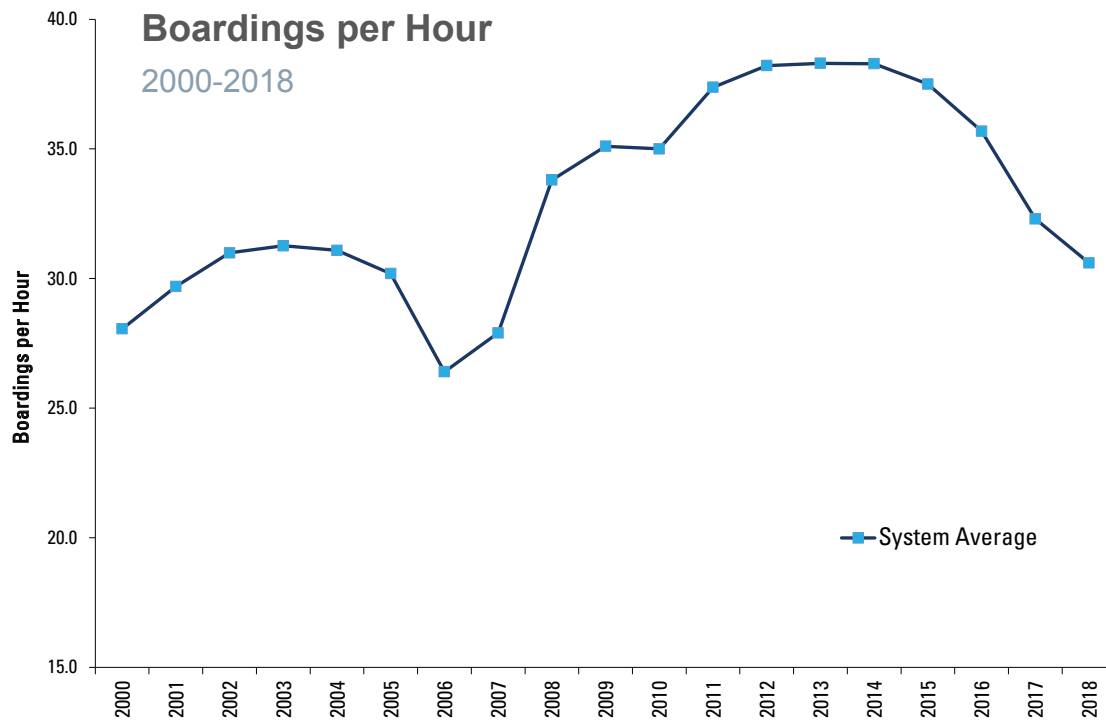


The service standard for passenger miles per hour is at least **75%** of the system average of **87.6**.

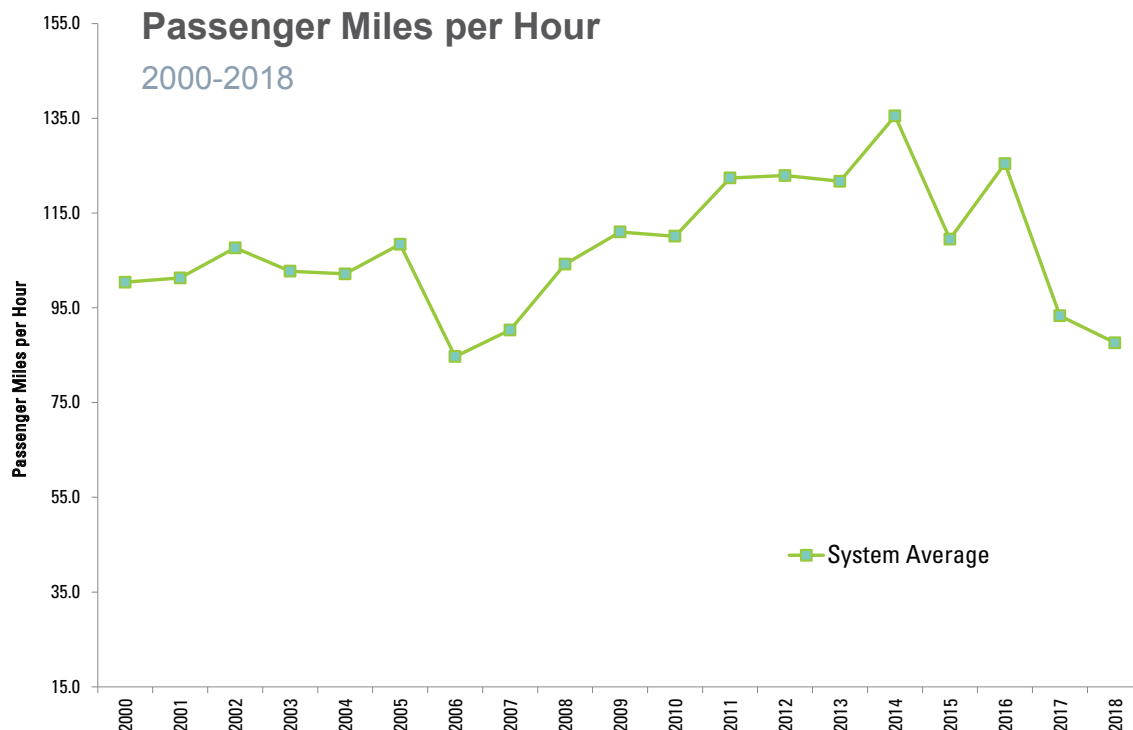


Productivity History

In 2018, the fixed route system average was **30.6** boardings per hour.

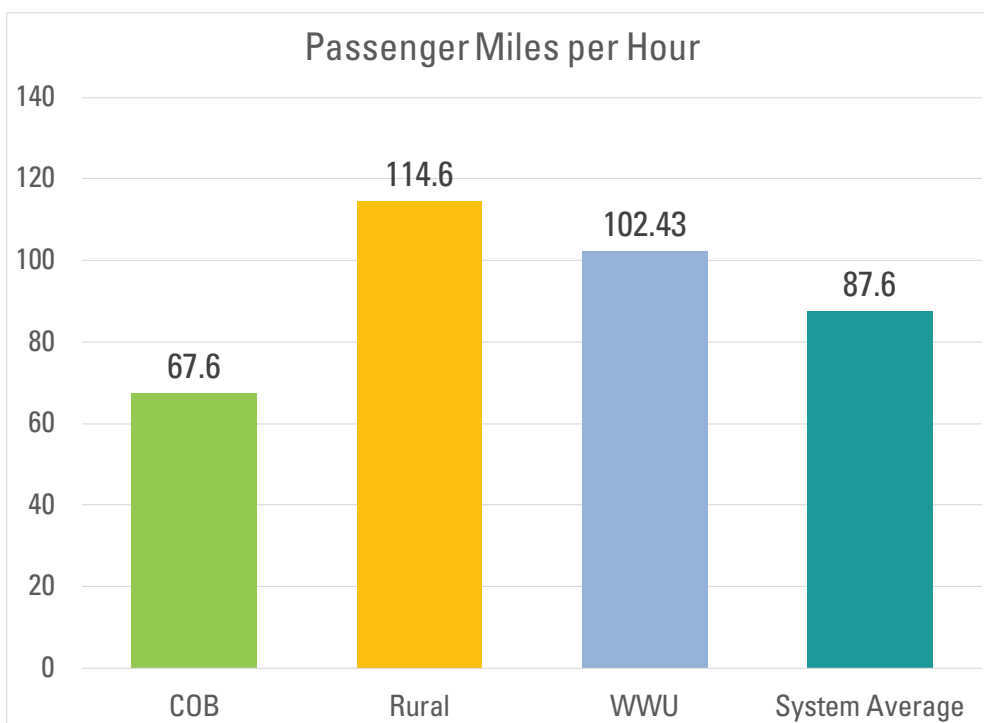
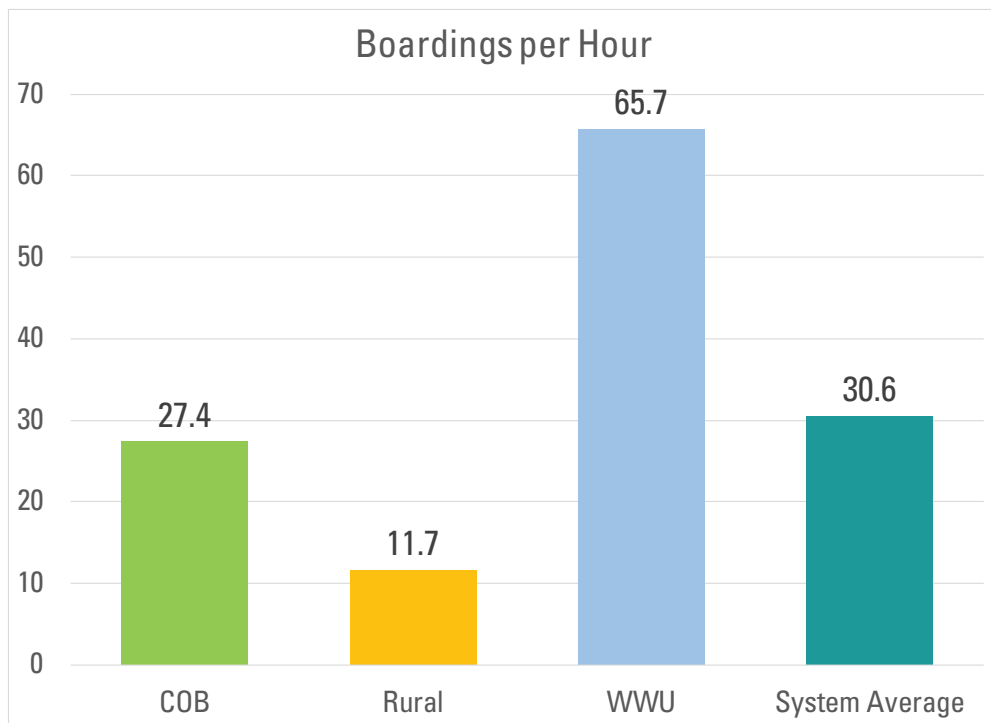


In 2018, the fixed route system average was **87.6** passenger miles per hour.



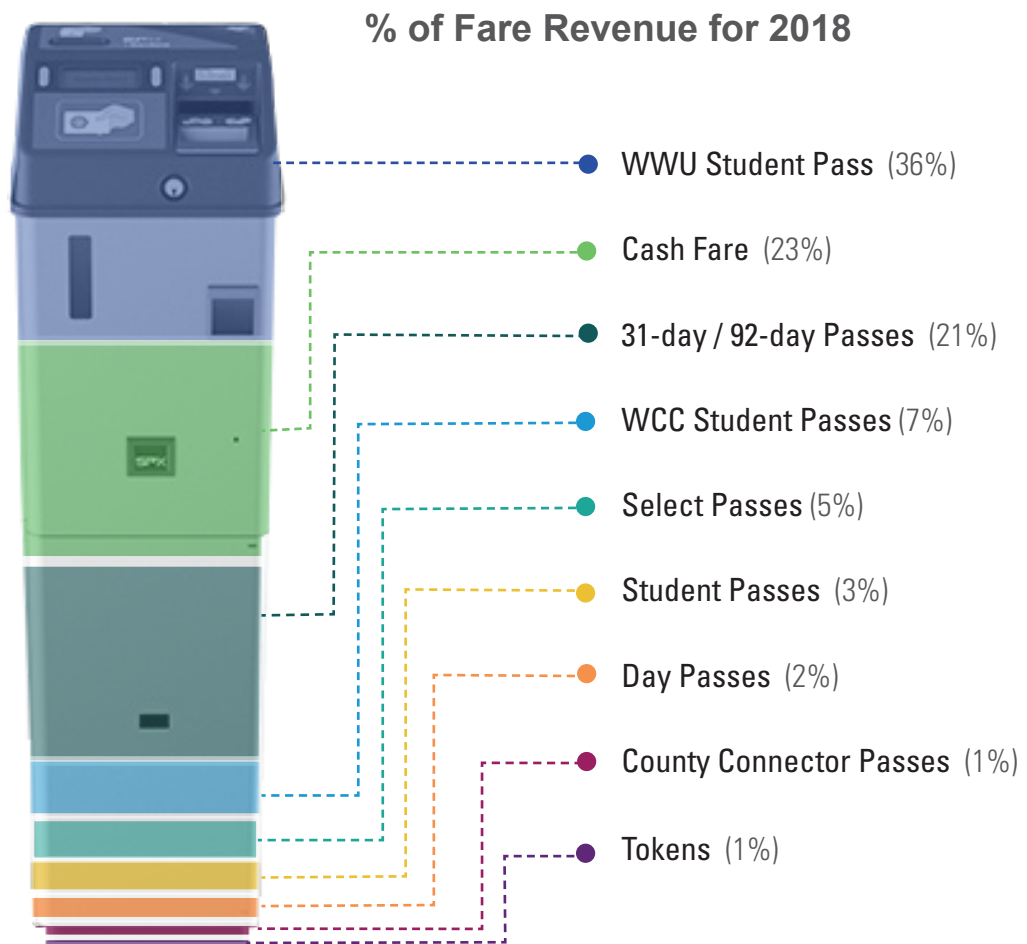
Productivity by Route Type

The following two graphs show the 2018 productivity grouped by 3 route types: City of Bellingham (COB) (Routes 1, 3, 4, 5, 15, 24, 48, 49, 232, 331, 525, 533, 540), small cities and unincorporated Whatcom County (rural) (Routes 26, 27, 50, 65, 71X, 72X, 75, 80X, 512), Western Washington University (WWU) (Routes 11, 14, 14S, 80S, 92, 107, 108, 190, 190S). While the non-Bellingham boardings per hour are much lower than the system average (11.7 compared to 30.3), the passenger miles per hour are much higher (114.6 compared to 87.6). The COB routes are below the system average for both metrics and the WWU routes are above the system average for both.



Revenue by Fare Type

	2018	2017	Diff.
WWU Student Pass	\$915,434	\$836,791	9%
Cash Fare	\$574,848	\$574,374	0.1%
Monthly/Quarterly Passes	\$523,364	\$552,105	-5%
WCC Student Pass	\$171,635	\$171,392	0.1%
Select Passes	\$125,803	\$179,051	-30%
Student Passes	\$86,300	\$110,240	-22%
Day Passes	\$60,483	\$54,783	10%
County Connector Passes	\$37,421	\$33,677	11%
Tokens	\$21,055	\$24,780	-15%
Total	\$2,516,343	\$2,537,193	-1%



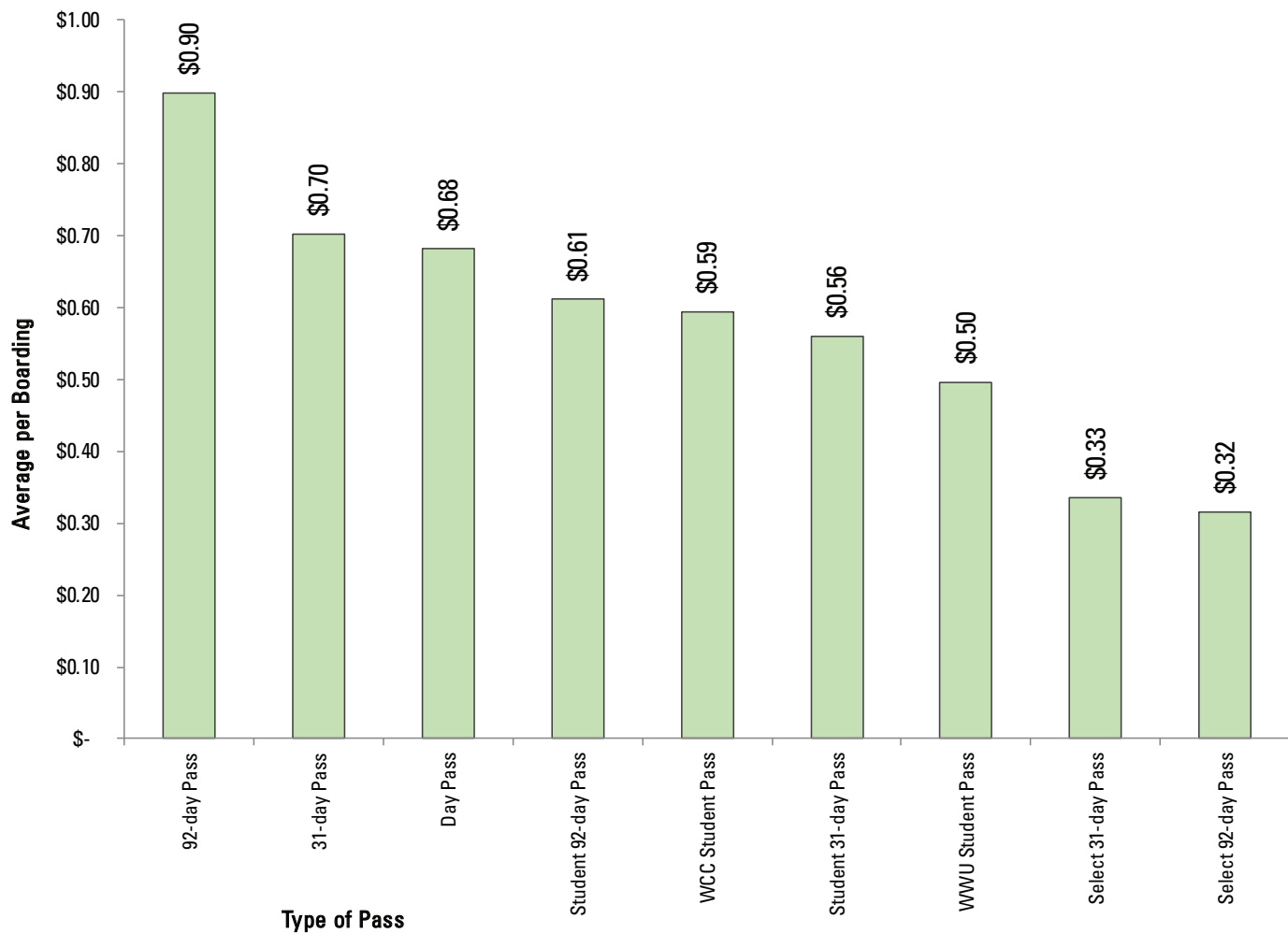
Bus Pass Cost Effectiveness

The graph below shows how much on average passengers pay per ride when they use a bus pass. For example, a 31-day pass costs \$25. If someone rode 50 times, the cost per ride would be \$0.50. The cash fare is \$1 per boarding.



Bus Pass Cost Effectiveness

2018

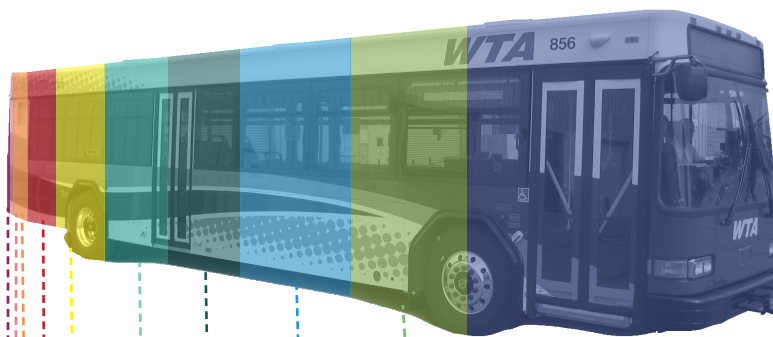


Boardings by Fare Type

	2018	2017	Diff.
WWU Student Pass	1,844,137	1,717,014	7%
31-Day/92-Day Passes	692,563	647,723	7%
Cash Fare	632,832	633,284	-0.1%
Student Passes	434,513	604,304	-28%
Free *	411,327	388,929	6%
Select Passes	385,781	427,358	-10%
Day Passes	88,738	104,702	-15%
County Connector Passes	27,839	40,438	-31%
Tokens	17,675	21,534	-18%
Other	7,131	16,735	-57%
Total	4,542,536	4,602,021	-1%

The majority of people boarding (75%) use a bus pass. While only 14% of passengers pay with cash, cash accounts for 23% of WTA's fare revenue.

* Free Rides includes Free Fare Days, riders <8 & >75, Free Day Passes, Guided Ride Passes and Free on Fixed Route Passes for paratransit eligible riders.



% of Boardings by Fare Type
2018

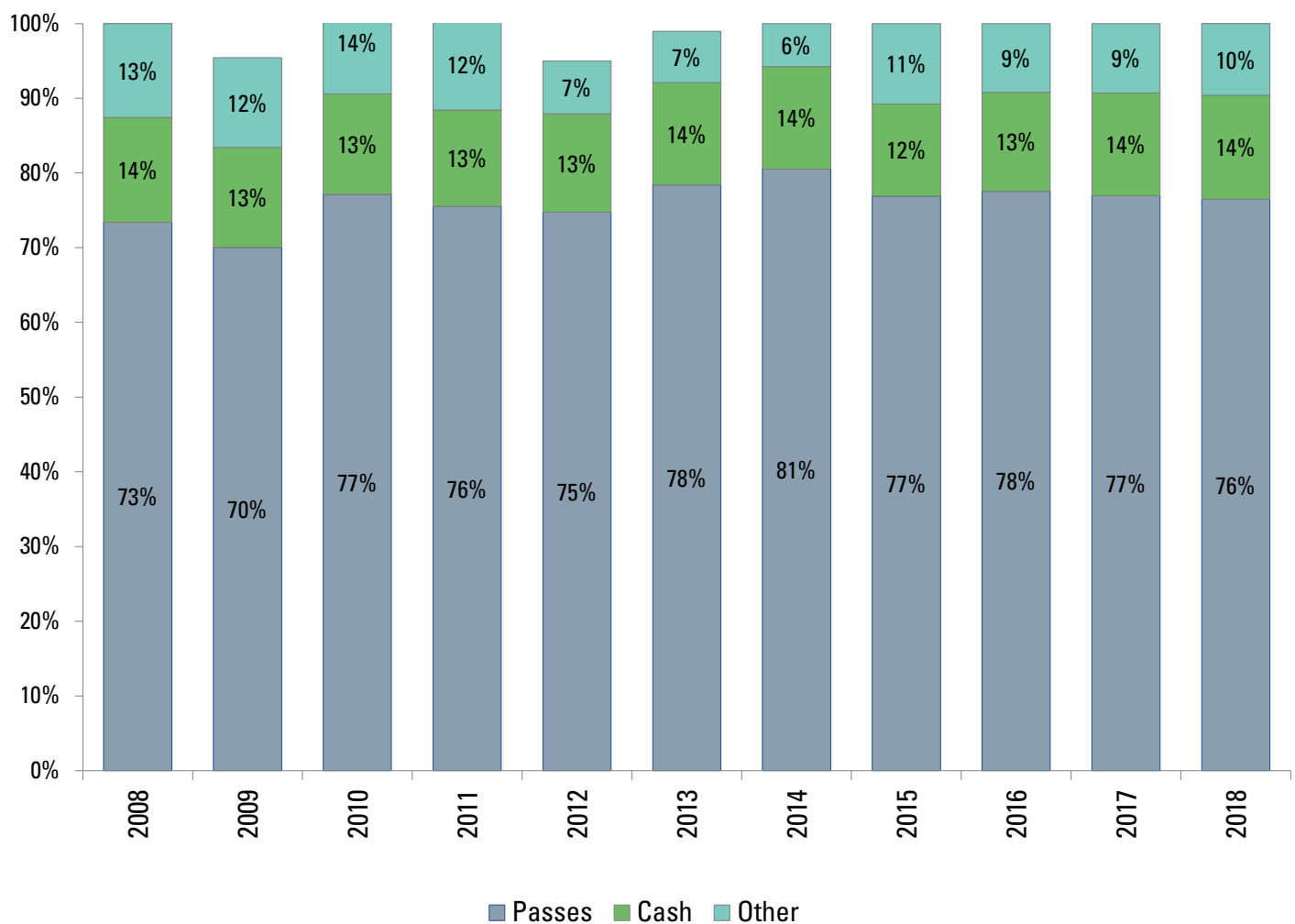
- WWU Student Pass (41%)
- 31-Day & 92-Day Passes (15%)
- Cash Fare (14%)
- Free (9%)
- Select Passes (8%)
- WCC Student Pass (6%)
- Student Passes (3%)
- Day Passes (2%)
- County Connector Passes (0.6%)
- Tokens & Other (0.5%)

Cash vs Passes

The graph below shows the percentage of total boardings for passes, cash and all other boardings. The 'other' category includes tokens and free rides.

Boardings by Fare Type

(2008-2018)



On-Time Performance

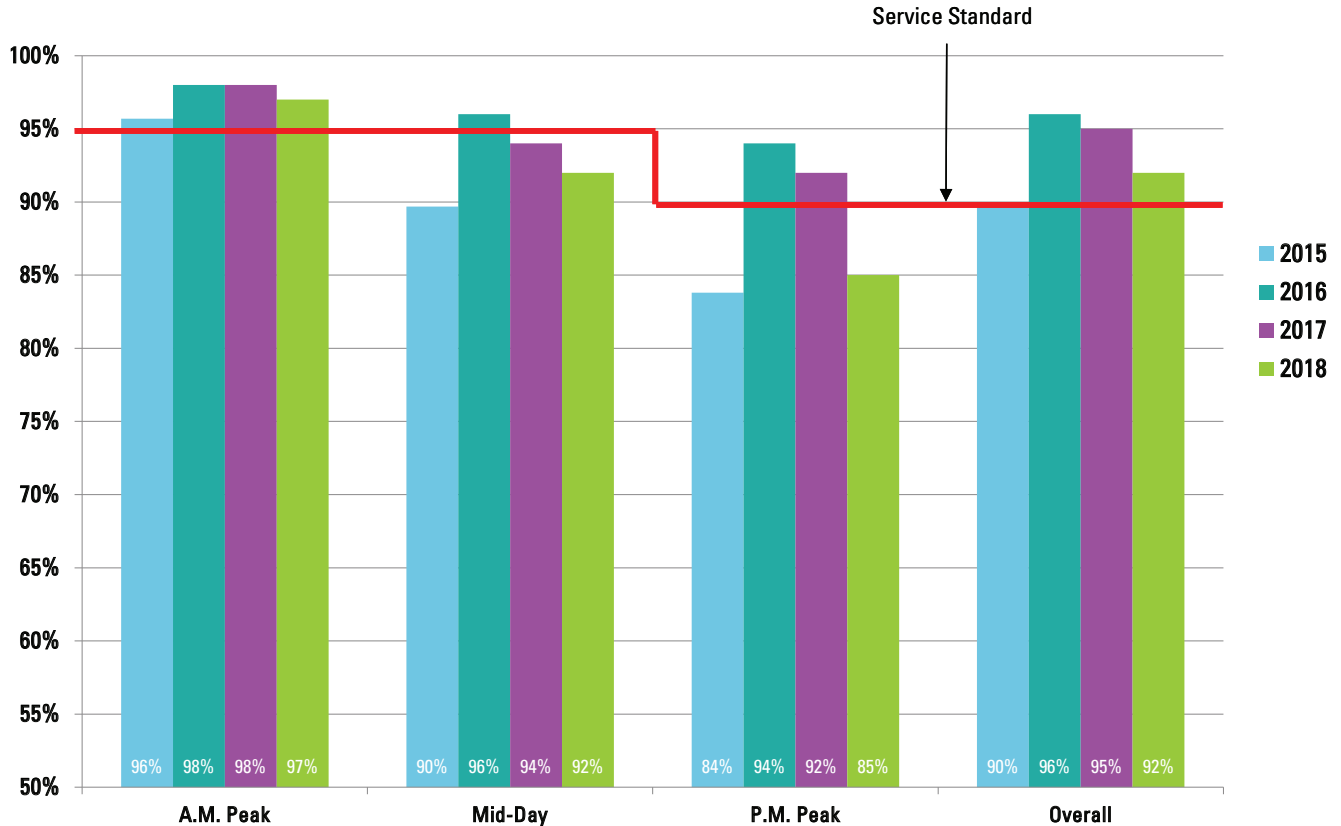
Fixed route service standards for on-time performance were created in the 2005 Strategic Service Plan. The minimum standard for PM Peak trips (3 to 6 pm) is 90% on time. The minimum standard for AM Peak (7 to 10 am) and Non-Peak is 95% on time.

To be considered on time a bus must arrive at Bellingham Station or Cordata Station within five minutes of its scheduled arrival. Individual routes failing these standards are regularly re-viewed.

The graph below shows combined on-time performance data for Bellingham Station and Cordata Station.

On-Time Performance

(2015-2018)



Boardings by Route

Boardings	2018	2017	Diff.
1 Fairhaven	179,050	185,650	-4%
3/4 Airport/Hospital	144,354	148,635	-3%
5 Fairhaven	70,401	54,165	30%
11 32nd St	104,486	61,493	70%
14 Fairhaven	395,768	406,609	-3%
15 Cordata/WCC	169,906	195,491	-13%
24 Cordata	80,606	74,387	8%
25X Lynden	n/a	2,669	n/a
26 Lynden	68,282	69,690	-2%
27 Ferndale	101,383	95,578	6%
43/44 Yew St	n/a	14,169	n/a
48 Bakerview Spur	1,591	1,682	-5%
49 Bakerview Spur	10,260	9,023	14%
50 Gooseberry Pt	66,969	65,370	2%
55 Birch Bay	n/a	4,579	n/a
65 Everson/Nooksack	3,647	575	534%
70X Blaine	n/a	10,668	n/a
71X E/N/S	21,948	22,779	-4%
72X Kendall	52,066	49,313	6%
75 Birch Bay/Blaine	54,194	42,317	28%
80X Mt. Vernon	33,758	32,775	3%
92 WWU	45,083	94,515	-52%
105 Fairhaven	n/a	85,313	n/a
107 WWU	87,767	138,271	-37%
108 Samish/WWU	101,512	108,618	-7%
190 Lincoln Creek	879,983	774,508	14%
232 Cordata/WCC	511,472	524,814	-3%
331 Cordata/WCC	657,553	663,558	-1%
512 Sudden Valley	115,846	114,151	1%
525 Electric	56,051	73,459	-24%
533 Yew St	52,466	43,762	20%
540 Sunset	92,974	87,990	6%
WWU Shuttles	383,160	345,445	11%
Total	4,542,536	4,602,021	-1%

Revenue Hours by Route

Revenue Hours	2018	2017	Diff.
1 Fairhaven	7,338	7,451	-2%
3/4 Airport/Hospital	8,319	8,111	3%
5 Fairhaven	4,083	3,221	27%
11 32nd St	1,321	724	82%
14 Fairhaven	7,260	7,235	0%
15 Cordata/WCC	7,125	7,259	-2%
24 Cordata	3,370	2,975	13%
25X Lynden	n/a	140	n/a
26 Lynden	5,265	4,958	6%
27 Ferndale	6,039	5,812	4%
43/44 Yew St	n/a	585	n/a
48 Bakerview Spur	455	480	-5%
49 Bakerview Spur	1,167	1,138	3%
50 Gooseberry Pt	4,385	4,203	4%
55 Birch Bay	n/a	655	n/a
65 Everson/Nooksack	2,510	661	280%
70X Blaine	n/a	491	n/a
71X E/N/S	2,714	2,741	-1%
72X Kendall	5,022	4,952	1%
75 Birch Bay/Blaine	6,817	5,322	28%
80X Mt. Vernon	2,832	2,662	6%
92 WWU	877	1,289	-32%
105 Fairhaven	n/a	1,351	n/a
107 WWU	1,737	2,022	-14%
108 Samish/WWU	1,632	1,664	-2%
190 Lincoln Creek	13,677	12,335	11%
232 Cordata/WCC	14,112	13,688	3%
331 Cordata/WCC	20,280	19,359	5%
512 Sudden Valley	5,262	4,950	6%
525 Electric	2,705	3,057	-12%
533 Yew St	3,773	2,970	27%
540 Sunset	4,501	4,309	4%
WWU Shuttles	3,905	3,550	10%
Total	148,483	142,321	4%

Paratransit Overview

As required by the Americans with Disabilities Act of 1990 (ADA), WTA provides paratransit service within 0.75 miles of all fixed routes. Paratransit provides curb-to-curb minibuss service for people whose disability prevents them from riding fixed route buses. You must qualify and be approved to ride.



	2018	2017	Diff.
Boardings	213,955	220,327	-3%
Revenue Hours	72,242	69,466	4%
Revenue Miles	929,655	897,031	4%
Passenger Miles	1,169,065	1,248,269	-6%
Boardings per Hour	3.0	3.2	-5%
Pax Miles per Hour	16.2	18.0	-10%
Pax Mi. per Boarding	5.5	5.7	-3%

-3%

decrease in
boardings
from 2017.

2,776

additional
revenue hours
in 2018.

3.0

**boardings per
hour** in 2018.

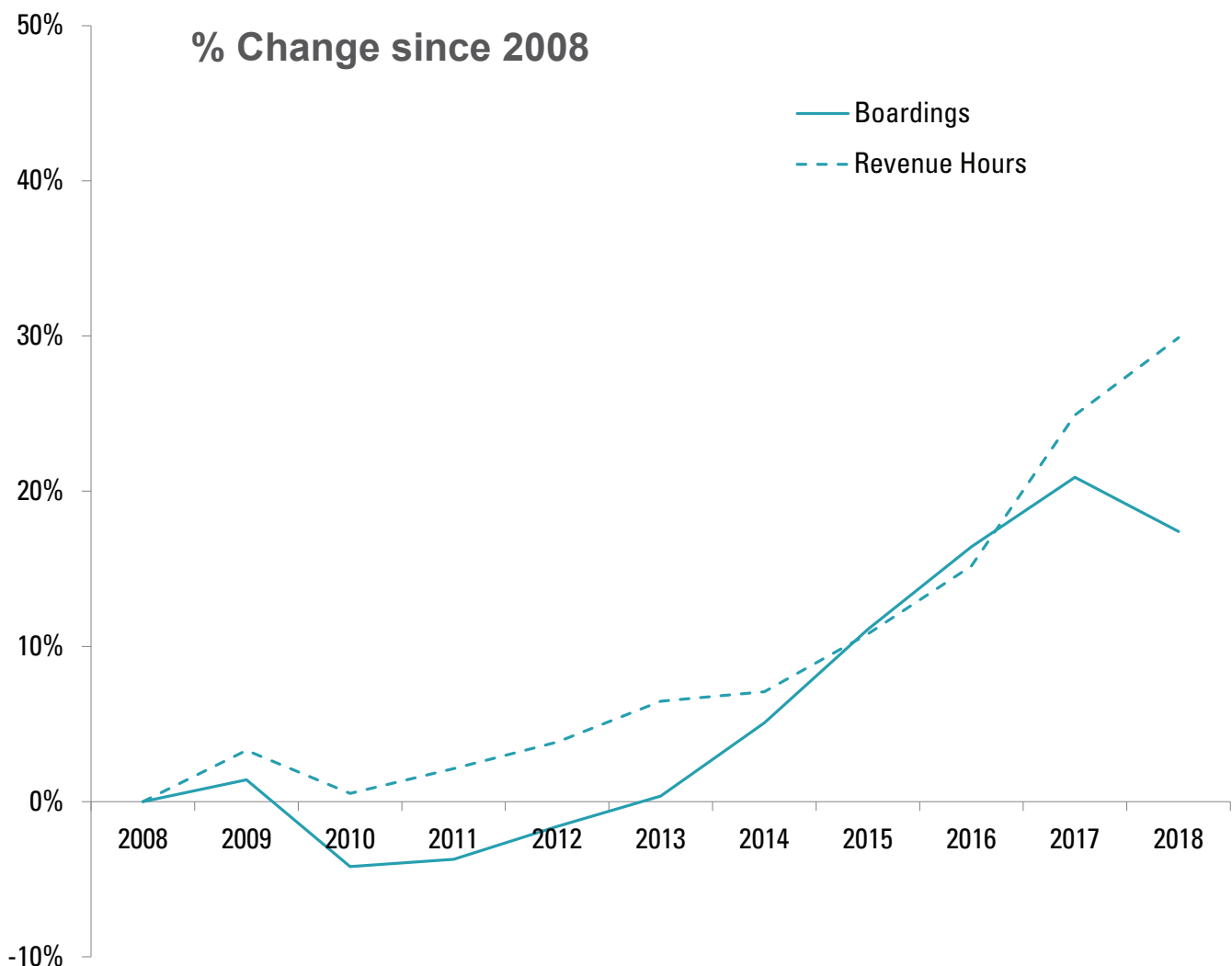


10-Year Change

Sunday paratransit service was eliminated September 19, 2010 and restored in the City of Bellingham June 12, 2011 which accounts for the dip in ridership and revenue hours from 2010 – 2011. The growth in revenue hours in 2017 is due to paratransit service being made available outside the City of Bellingham on March 17, 2017. Lynden, Ferndale, Gooseberry Pt and Sudden Valley now have paratransit service seven days a week.

	2018	2008	Diff.
Boardings	213,955	182,245	17%
Rev. Hours	72,242	55,616	30%

The decline in 2018 boardings is due to a number of factors such as the Lynden Adult Day Health center closing in August 2018, WTA staff activating and enforcing conditional eligibility and moving some riders to fixed route. WTA offers a Free on Fixed Route bus pass and fixed route travel training to all paratransit eligible passengers.



Zone Service Overview

Zone service provides residents of rural Whatcom County with limited service to Cordata Station and Bellingham Station. There are no eligibility requirements; the service is available to everyone. Service to each zone is only offered on one or two days per week.



	2018	2017	Diff.
Boardings	1,753	2,114	-17%
Revenue Hours	1,034	1,344	-23%
Revenue Miles	23,685	29,219	-19%
Passenger Miles	29,995	36,776	-18%
Boardings per Hour	1.7	1.6	8%
Pax Miles per Hour	29.0	27.4	6%
Pax Mi. per Boarding	17.1	17.4	-2%

-17%

decrease in
boardings
from 2017.

17.1

passenger
miles per
boarding in
2018.

1.7

boardings per
hour in 2018.

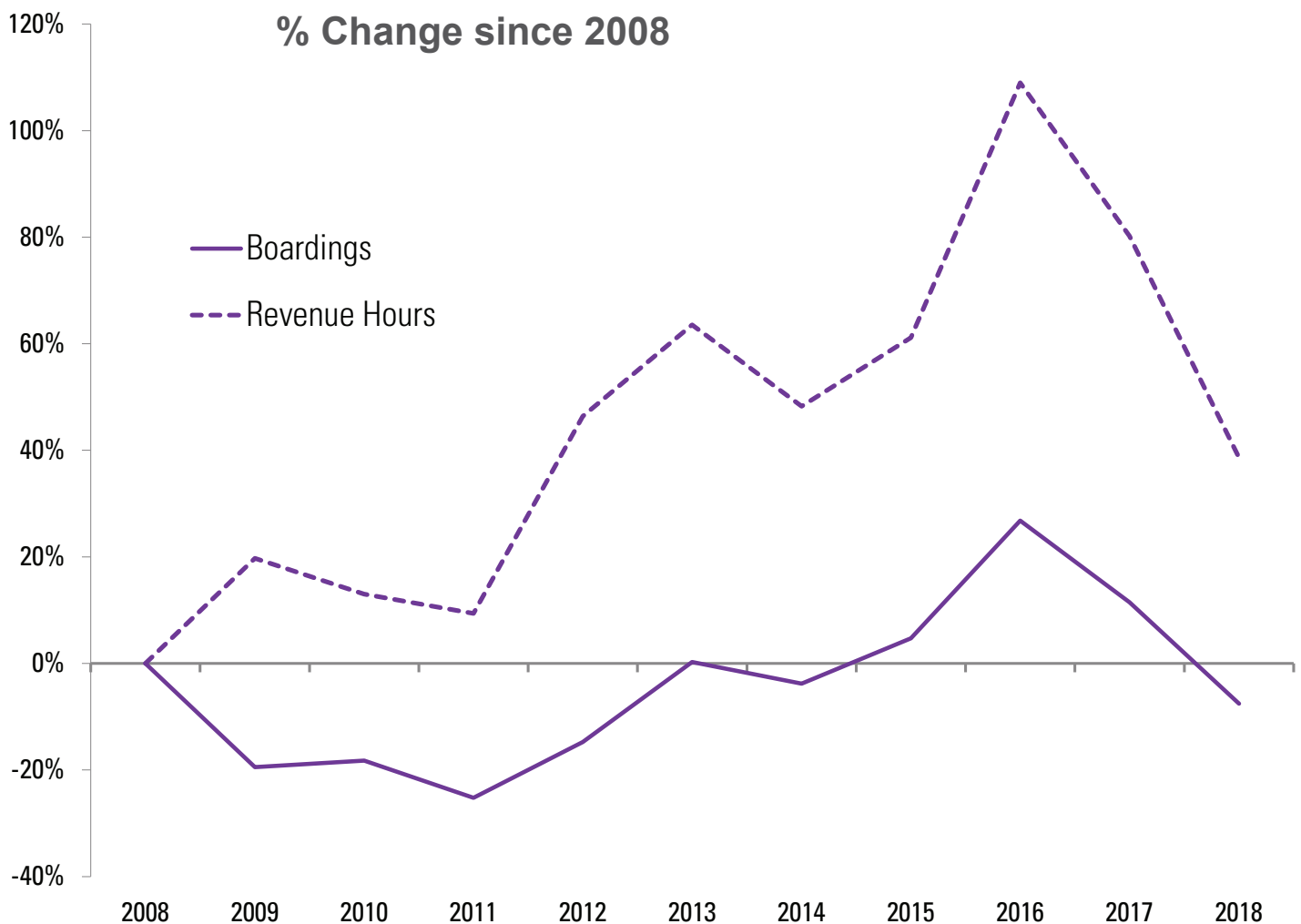


Zone Service Change

10-Year Change

The average distance of a zone service ride in 2018 was 17.1 miles. Boardings are highly variable year to year on Zone Service and are heavily influenced by a small number of riders who ride frequently.

	2018	2008	Diff.
Boardings	1,753	1,896	-8%
Rev. Hours	1,034	746	39%



Vanpool Overview

WTA manages a fleet of passenger vans for vanpooling. These vans are leased to commuter groups who pay a fare based on monthly travel distance. Fares cover all fuel, maintenance, and insurance.

WTA provides support services for vanpool group formation, vehicle maintenance and driver orientation.

In 2018, boardings were up slightly for the first time in many years. Vanpool ridership has been in decline at most transit agencies in recent years.



	2018	2017	Diff.
Boardings	47,591	46,492	2%
Revenue Hours	7,502	7,371	2%
Revenue Miles	406,554	396,942	2%
Passenger Miles	1,977,967	1,845,150	7%
Boardings per Hour	6.3	6.3	1%
Pax Miles per Hour	263.7	250.3	5%
Pax Mi. per Boarding	41.6	39.7	5%

2%

increase in
boardings
from 2017.

41.6

passenger miles
per boarding in
2018.



264

passenger
miles per
hour in 2018.

10-Year Change

There was an increase in vanpool boardings in 2018 primarily due to a few short-term long distance vans going to the Seattle area. The average vanpool commute was 83 miles round-trip in 2018.

	2018	2008	Diff.
Boardings	47,591	91,042	-48%
Rev. Hours	7,502	10,505	-29%
Pax Mi. per Boarding	41.6	41.8	-1%
Vans in Service (average)	22	28	-21%

% Change since 2008

