

Whatcom Transportation Authority

Service Performance Report

2019



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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 27 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 2019 totals for each type of service WTA offers.

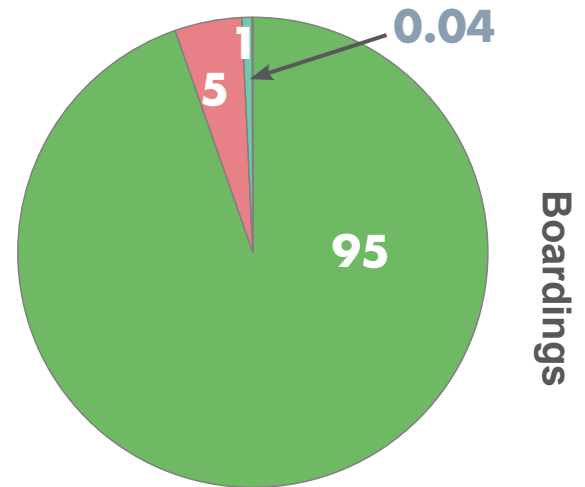
2019	Fixed Route	Paratransit	Zone	Vanpool
				
Boardings	4,451,508	216,928	2,010	33,361
Revenue Hours	152,623	75,645	1,033	4,322
Revenue Miles	2,123,146	960,097	25,604	238,833
Passenger Miles	13,312,852	1,136,130	31,285	1,254,044
Boardings per Hour	29.2	2.9	1.9	7.7
Passenger Miles per Hour	87.2	15.0	30.3	290.1
Passenger Miles per Boarding	3.0	5.2	15.6	37.6

Percentage of Total

Boardings

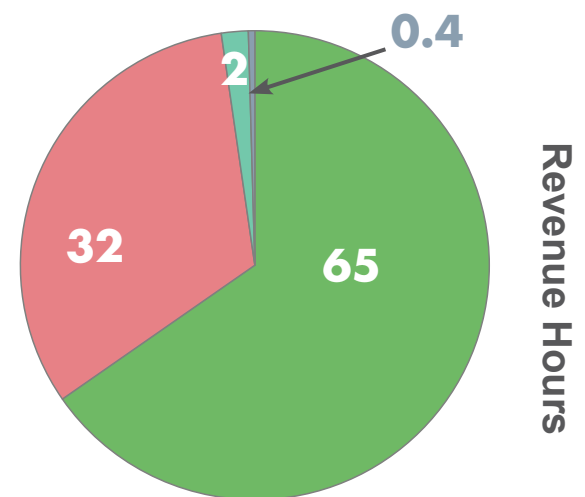
A boarding is counted each time a passenger steps onto a fixed route, paratransit, vanpool or zone service vehicle. Fixed route service represents 95% of all boardings.

2019



Revenue Hours

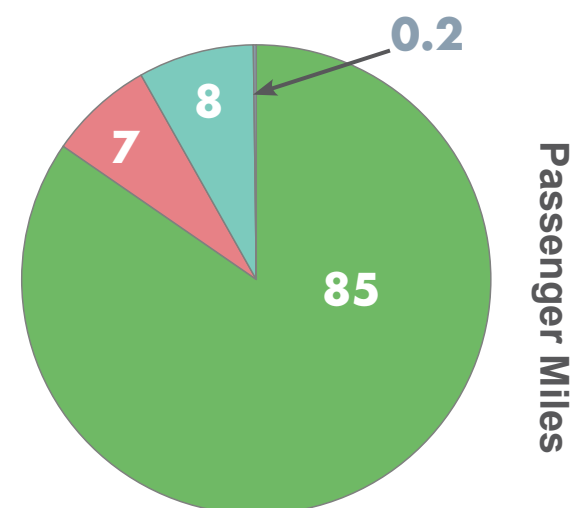
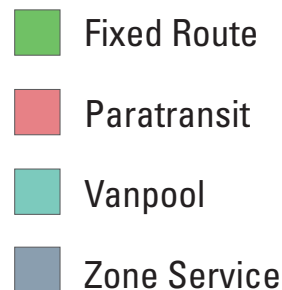
Revenue hours are number of hours the bus is in service, including layover time. Paratransit accounts for 5% of all boardings, yet it provides 32% of all revenue hours.



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 8% of all passenger miles.

% of total



Boardings Comparison

2019 vs. 2018

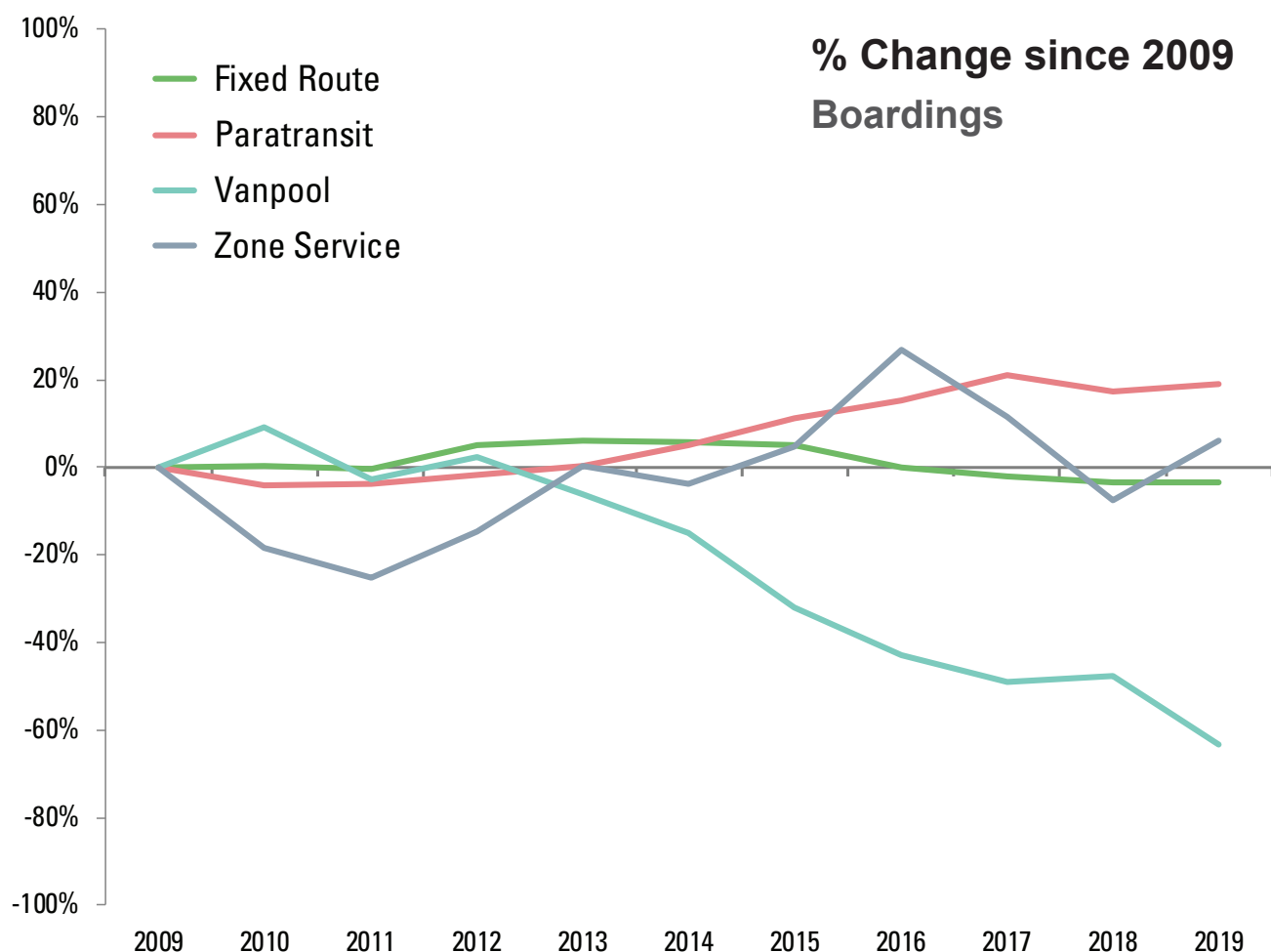
Fixed Route and Vanpool had decreases in boardings of -2% and -30%. Paratransit increased 1% and Zone Service increased by 15%.

	2019	2018	Diff.
Fixed Route	4,451,508	4,542,536	-2%
Paratransit	216,928	213,955	1%
Vanpool	33,361	47,591	-30%
Zone Service	2,010	1,753	15%

10-Year Change

Of the four types of service, paratransit and Zone Service both had increases in boardings compared to 2009. The graph below shows the change in boardings since 2009.

	2019	2009	Diff.
Fixed Route	4,451,508	4,927,766	-8%
Paratransit	216,928	184,803	17%
Vanpool	33,361	98,644	-66%
Zone Service	2,010	1,527	32%



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 2019, there were 91,028 fewer boardings than 2018, following a national trend.

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

In 2019, revenue hours were up 3%. The increase in revenue hours was due to changes implemented in September 2018. The changes were some additional service to WWU as well as additional Saturday service on the Green and Gold Lines.

	2019	2018	Diff.
Boardings	4,451,508	4,542,536	-2%
Revenue Hours	152,623	148,483	3%
Revenue Miles	2,123,146	2,100,487	1%
Passenger Miles	13,312,852	13,012,492	2%
Boardings per Hour	29.2	30.6	-5%
Pass. Mi. per Hour	87.2	87.6	-0.5%
Pass. Mi. per Boarding	3.0	2.9	3%

-2%

decrease in
boardings
from 2018.

29.2

boardings
per hour in
2019.

3.0

passenger miles
per boardings
in 2019.



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.

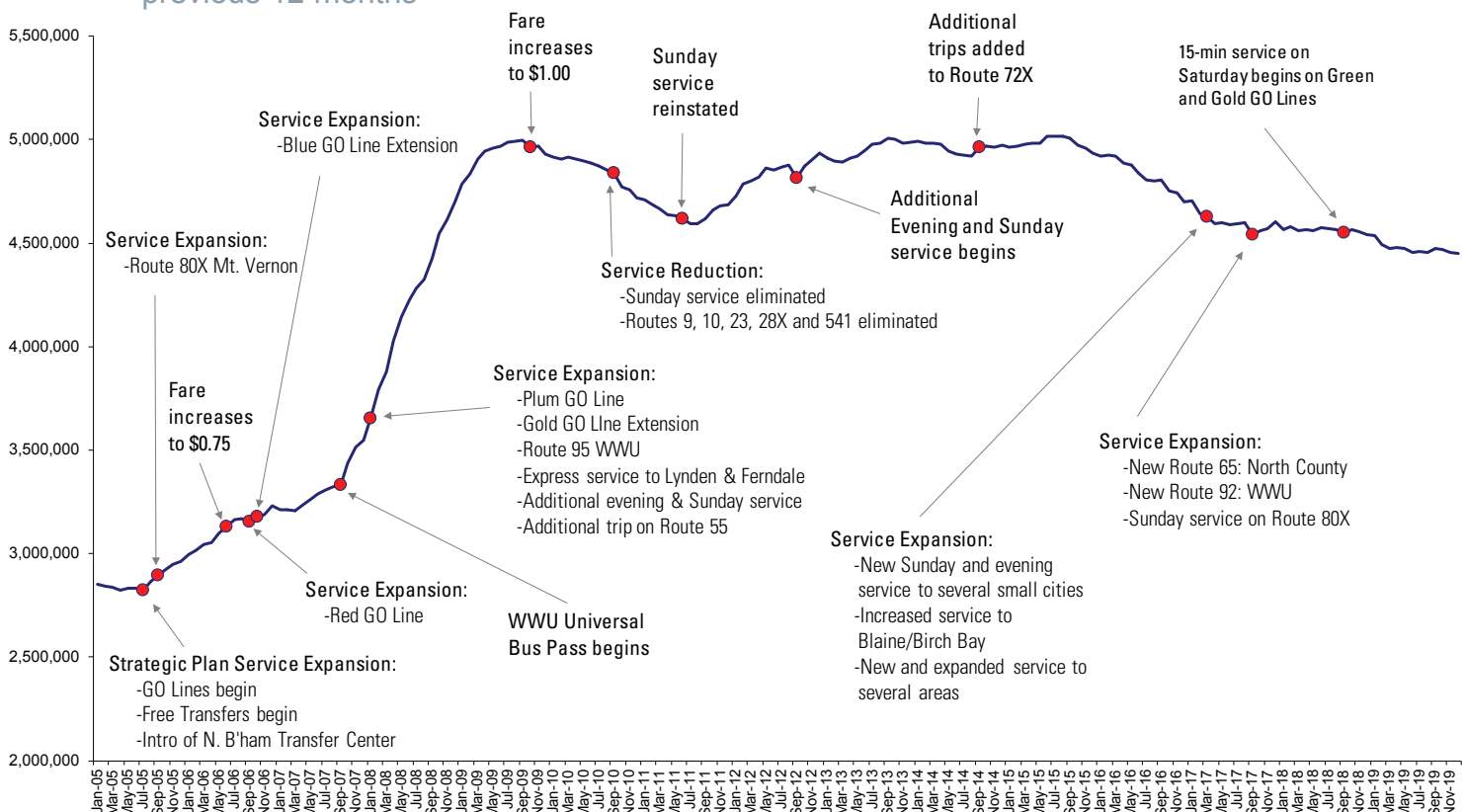
In 2010, a 14% service cut was necessitated by reduced revenues due to the recession. Approximately half of that was restored less than a year later due to funding from Bellingham's Transportation Benefit District.

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 (2005-2019)

data points equal the sum of previous 12 months



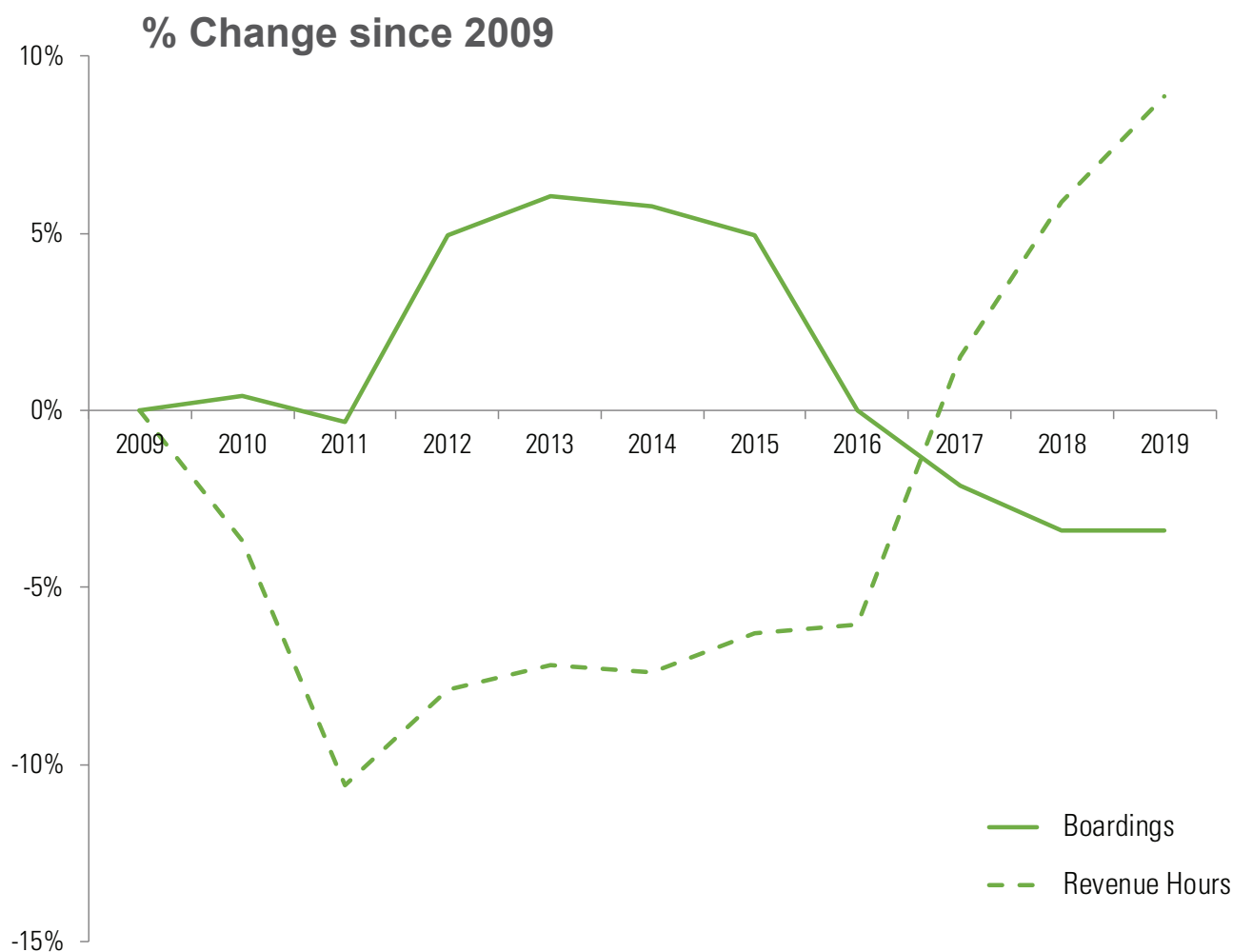
Fixed Route Change

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 3%, WTA has seen a -2% decrease in Boardings over the past 10 years. Bus ridership has decreased nationally an average of 13% over the past decade (source APTA Public Transportation Ridership Report).

	2019	2009	Diff.
Boardings	4,451,508	4,542,536	-2%
Rev. Hours	152,623	148,483	3%



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 50 Gooseberry Pt +	11 WWU ^ 190 Lincoln St 331 Cordata/WCC
	Between 75-99% (65.6-87.5)	NONE	512 Sudden Valley	14 Fairhaven 107 WWU/Samish 196 WWU/Lincoln * 197 Lincoln/WWU * 232 Cordata/WCC
	Less than 75% (0-65.5)	4 Hospital + 48 Bakerview Spur 49 Bakerview Spur 65 Everson/Nooksack ^	3 Airport + 5 Fairhaven ^ 525 Barkley + 533 Yew St + 540 Sunset	1 Fairhaven 15 Cordata/WCC 24 Cordata 92 WWU 105 Fairhaven * 108 Samish/WWU

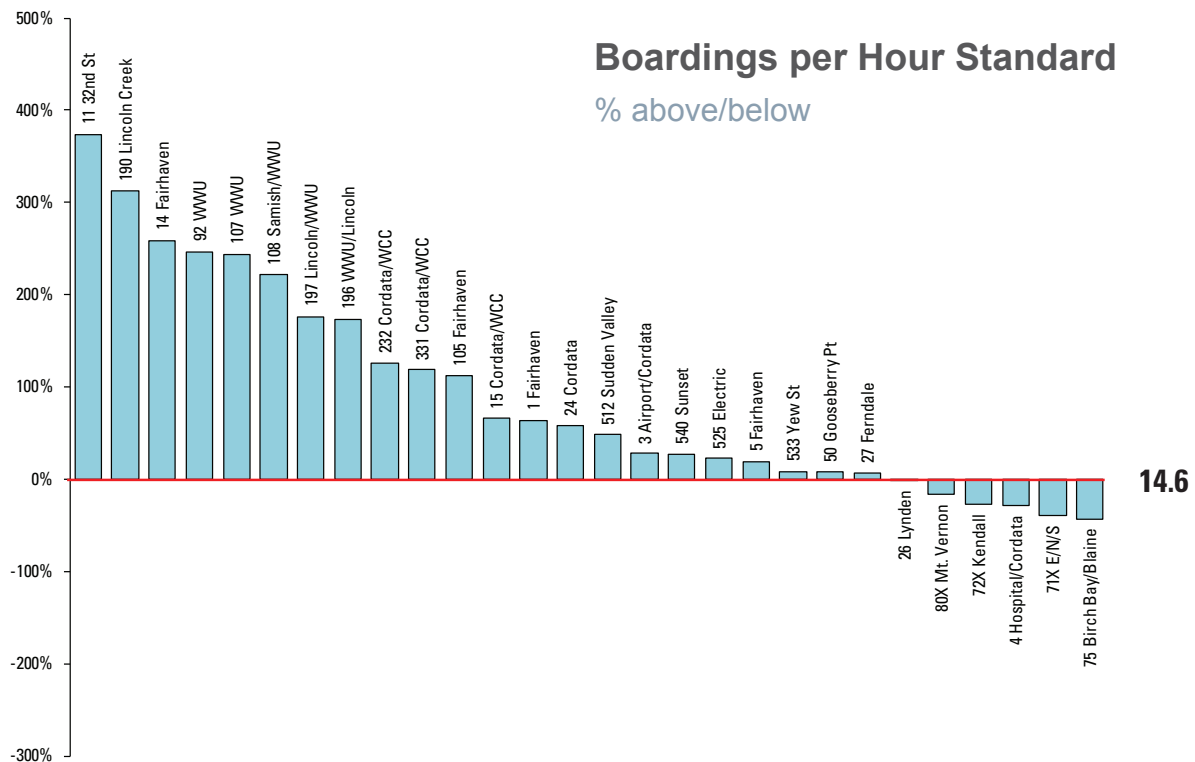
* new route June 2019

+ modified route June 2019

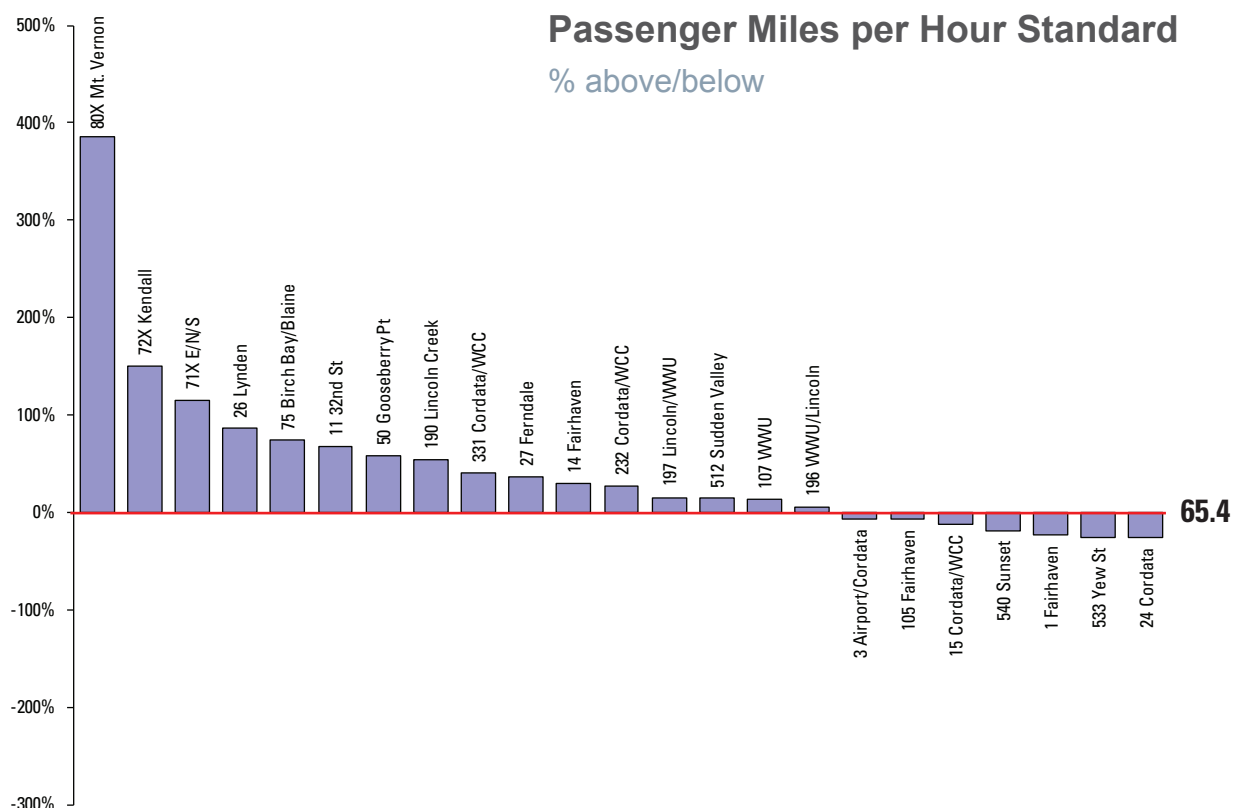
^ discontinued route June 2019

Productivity Standards

The service standard for boardings per hour is at least **50%** of the system average of **29.2**.

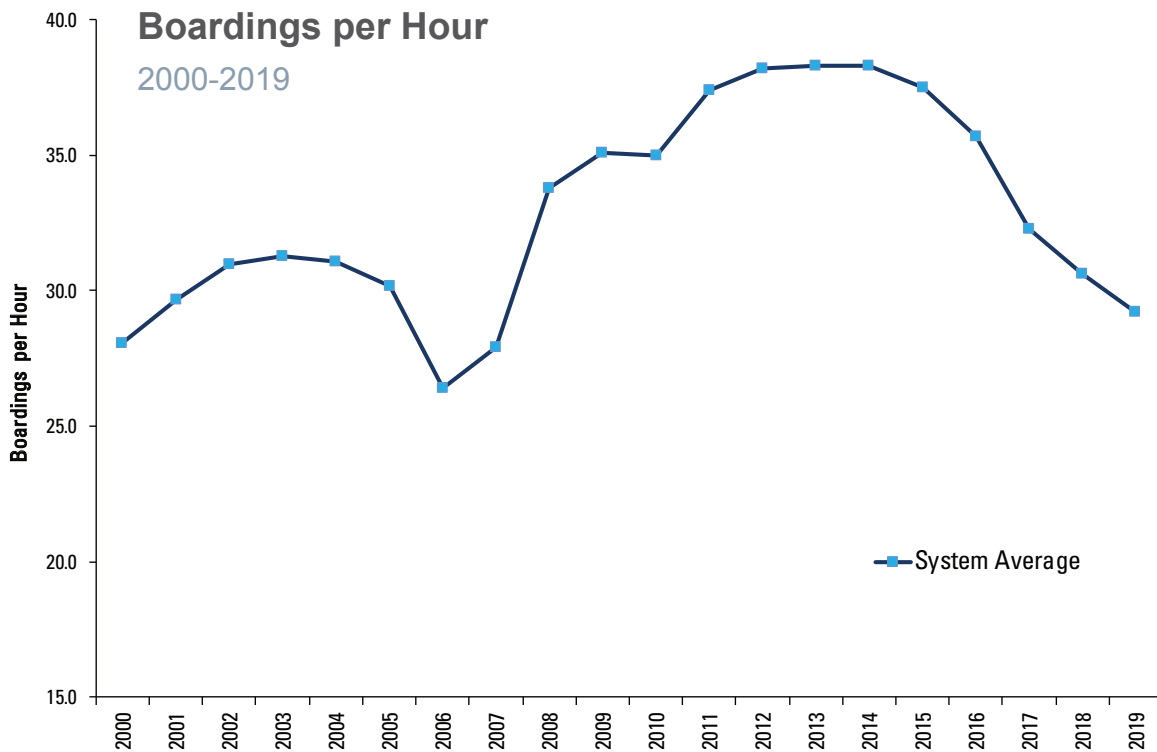


The service standard for passenger miles per hour is at least **75%** of the system average of **87.2**.

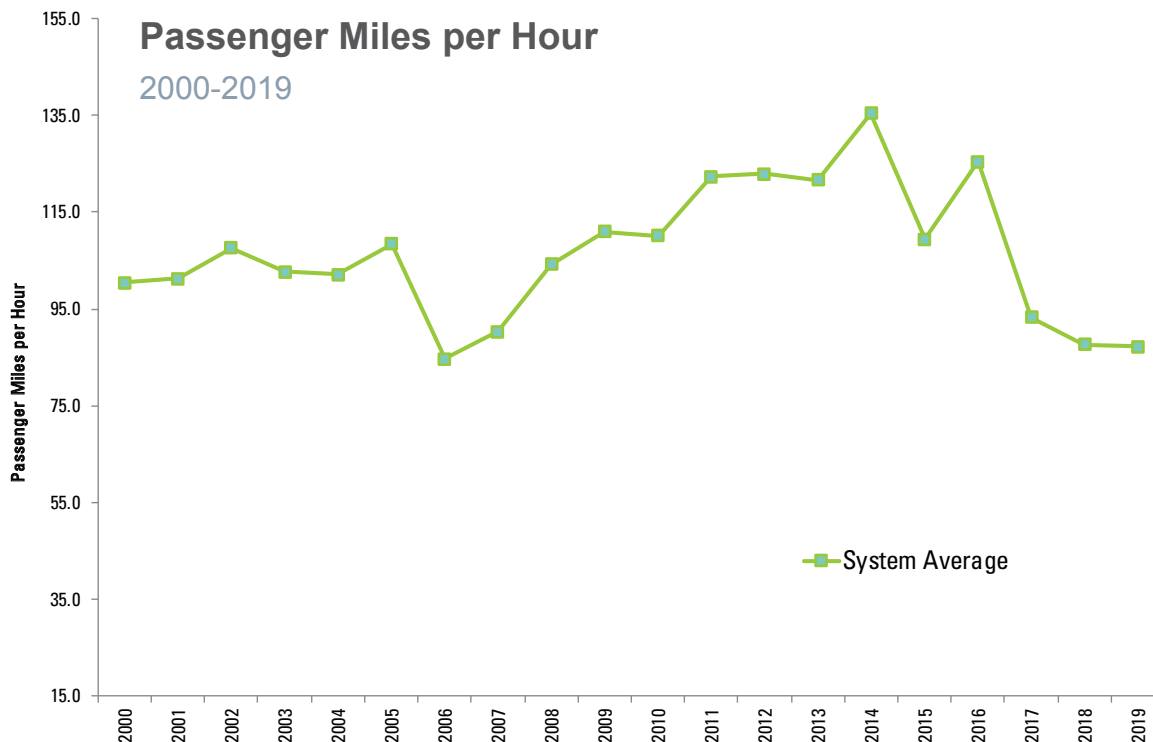


Productivity History

In 2019, the fixed route system average was **29.2** boardings per hour.

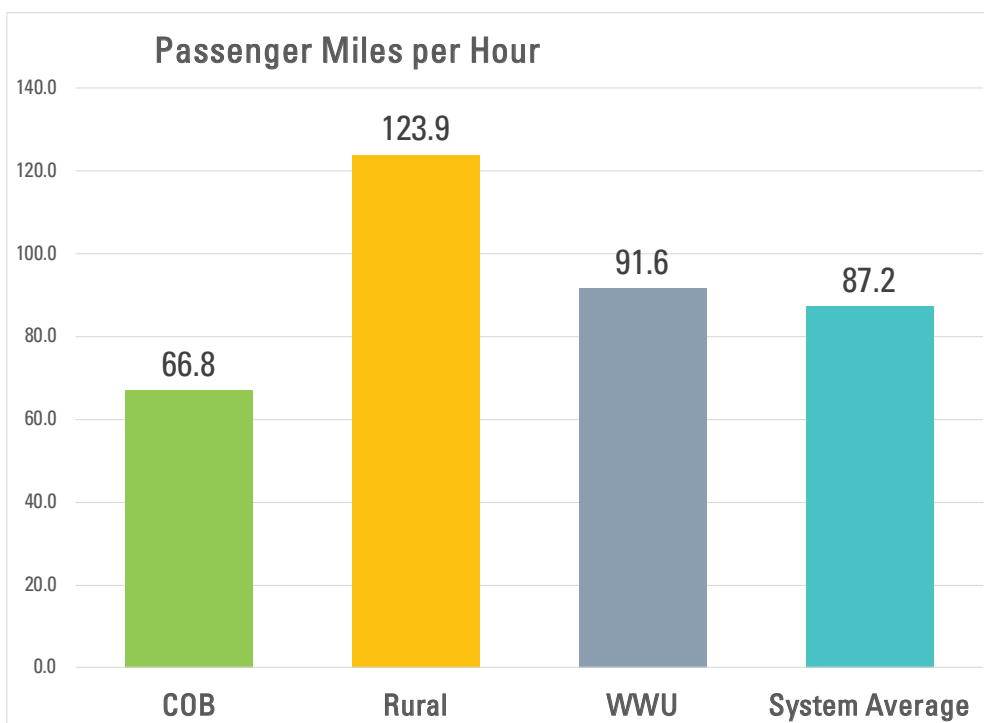
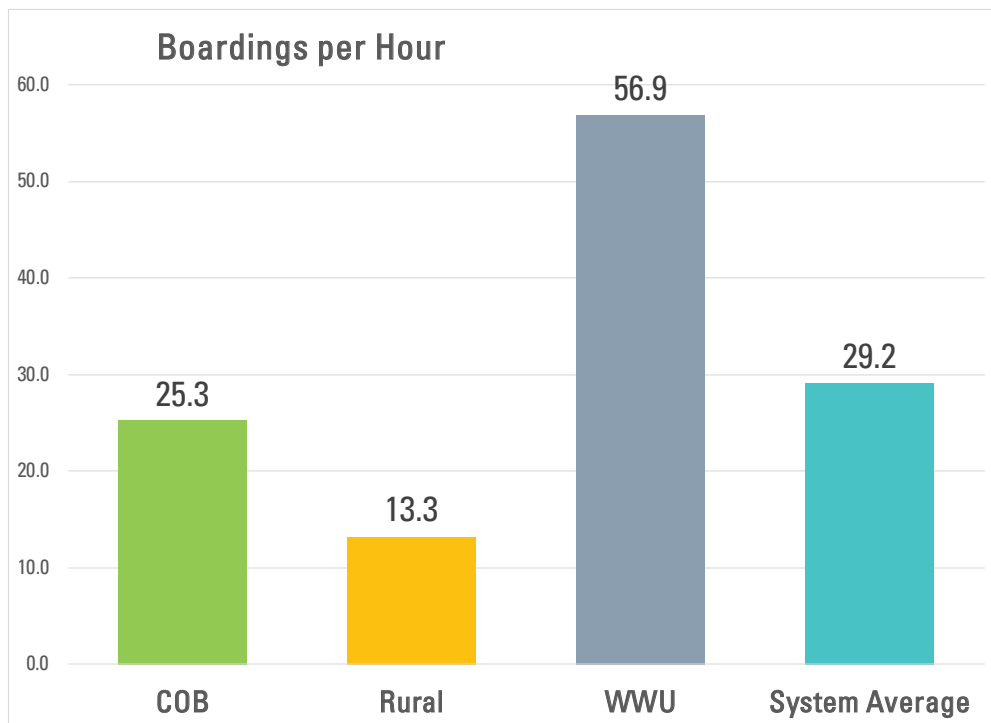


In 2019, the fixed route system average was **87.2** passenger miles per hour.



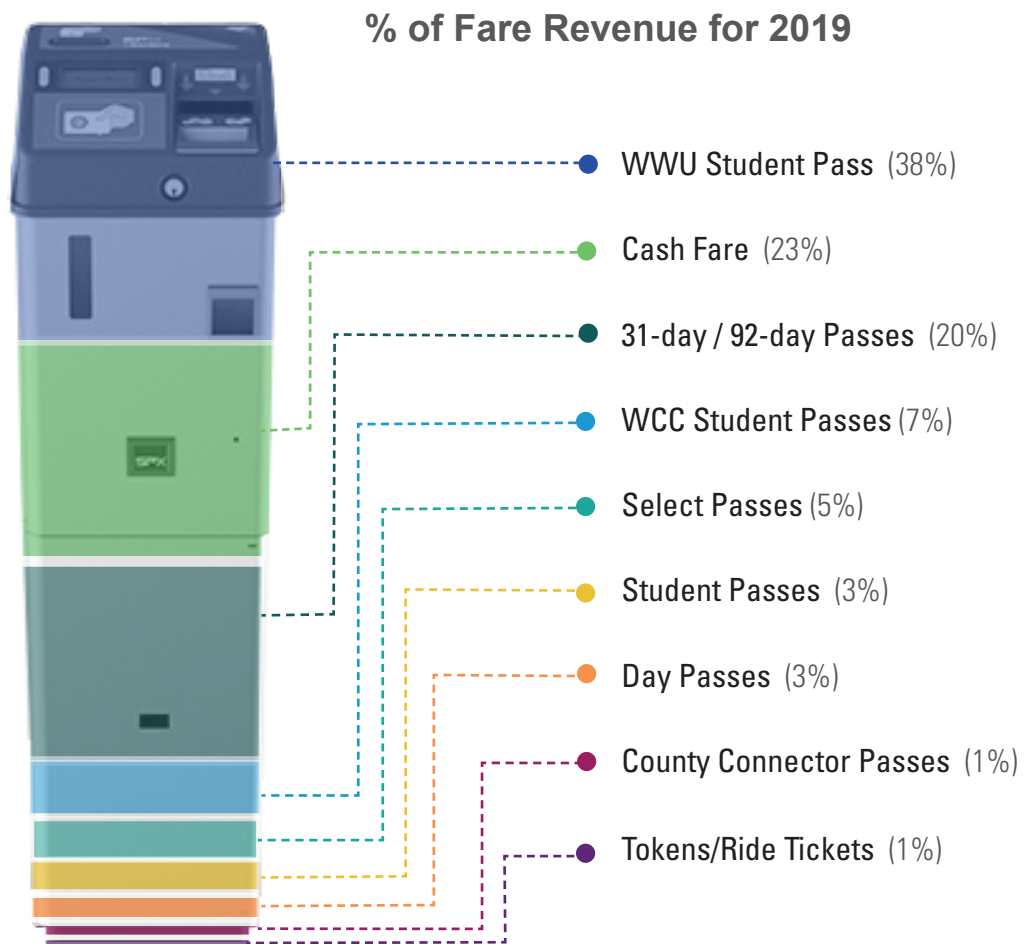
Productivity by Route Type

The following two graphs show the 2019 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, 105, 107, 108, 190, 190S, 196, 197). While the non-Bellingham boardings per hour are much lower than the system average (13.3 compared to 29.2), the passenger miles per hour are much higher (123.9 compared to 87.2). 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

	2019	2018	Diff.
WWU Student Pass	\$938,892	\$915,434	3%
Cash Fare	\$572,364	\$574,848	-0.4%
Monthly/Quarterly Passes	\$491,930	\$523,364	-6%
WCC Student Pass	\$168,991	\$171,635	-2%
Select Passes	\$122,250	\$125,803	-3%
Student Passes	\$63,190	\$86,300	-27%
Day Passes	\$68,490	\$60,483	13%
County Connector Passes	\$35,638	\$37,421	-5%
Tokens/Ride Tickets	\$17,348	\$21,055	-18%
Total	\$2,479,096	\$2,516,343	-1%



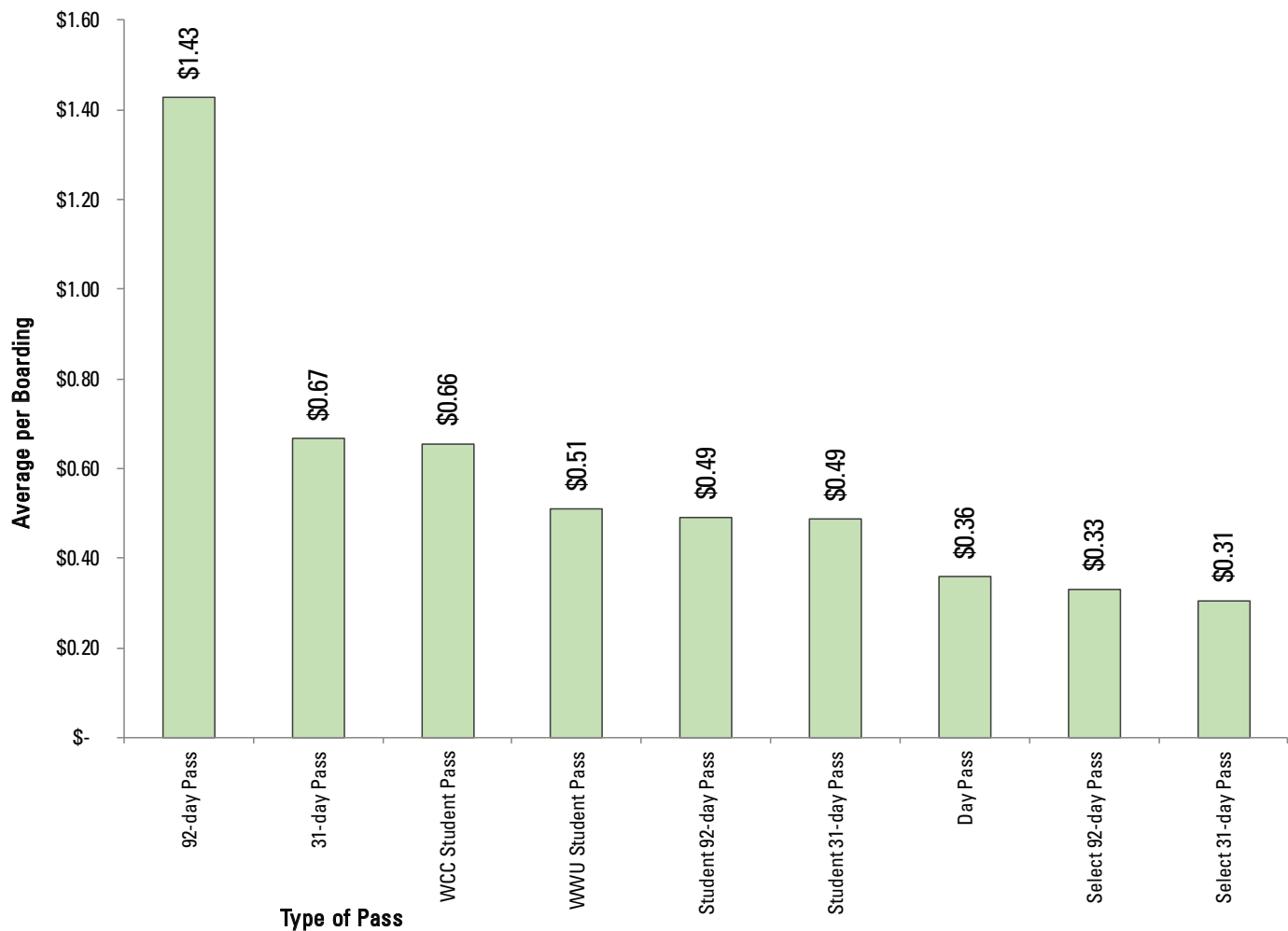
Bus Pass Cost Effectiveness

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

2019

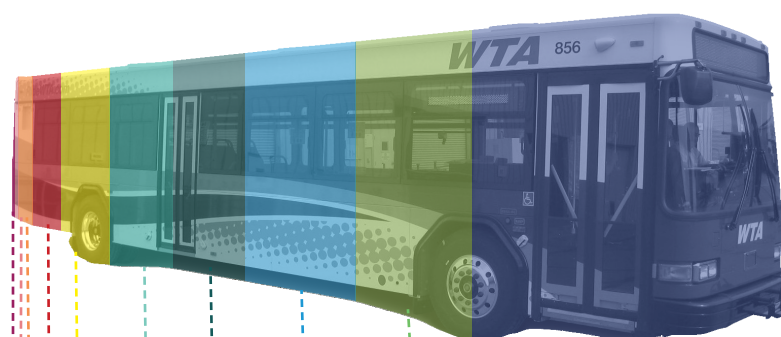


Boardings by Fare Type

	2019	2018	Diff.
WWU Student Pass	1,845,677	1,844,137	0%
Cash Fare	623,910	632,832	-1%
31-Day/92-Day Passes	608,392	692,563	-12%
Select Passes	387,147	385,781	0%
Free *	357,408	411,327	-13%
WCC Student Pass	257,733	288,803	-11%
Day Passes	191,560	88,738	116%
Student Passes	129,585	149,650	-13%
County Connector Passes	32,080	27,839	15%
Tokens	9,191	17,675	-48%
11-ride Ticket	6,699	n/a	n/a
Other	2,126	7,131	-70%
Total	4,451,508	4,542,536	-2%

The majority of people boarding (77%) use a bus pass. While only 14% of passengers pay with cash, cash accounts for 23% of WTA's fare revenue. For 2019, Free rides were down -13% and Day Passes were up 116% because the free days passes given to Social and Health agencies were counted with Day Passes instead of Free.

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



% of Boardings by Fare Type
2019

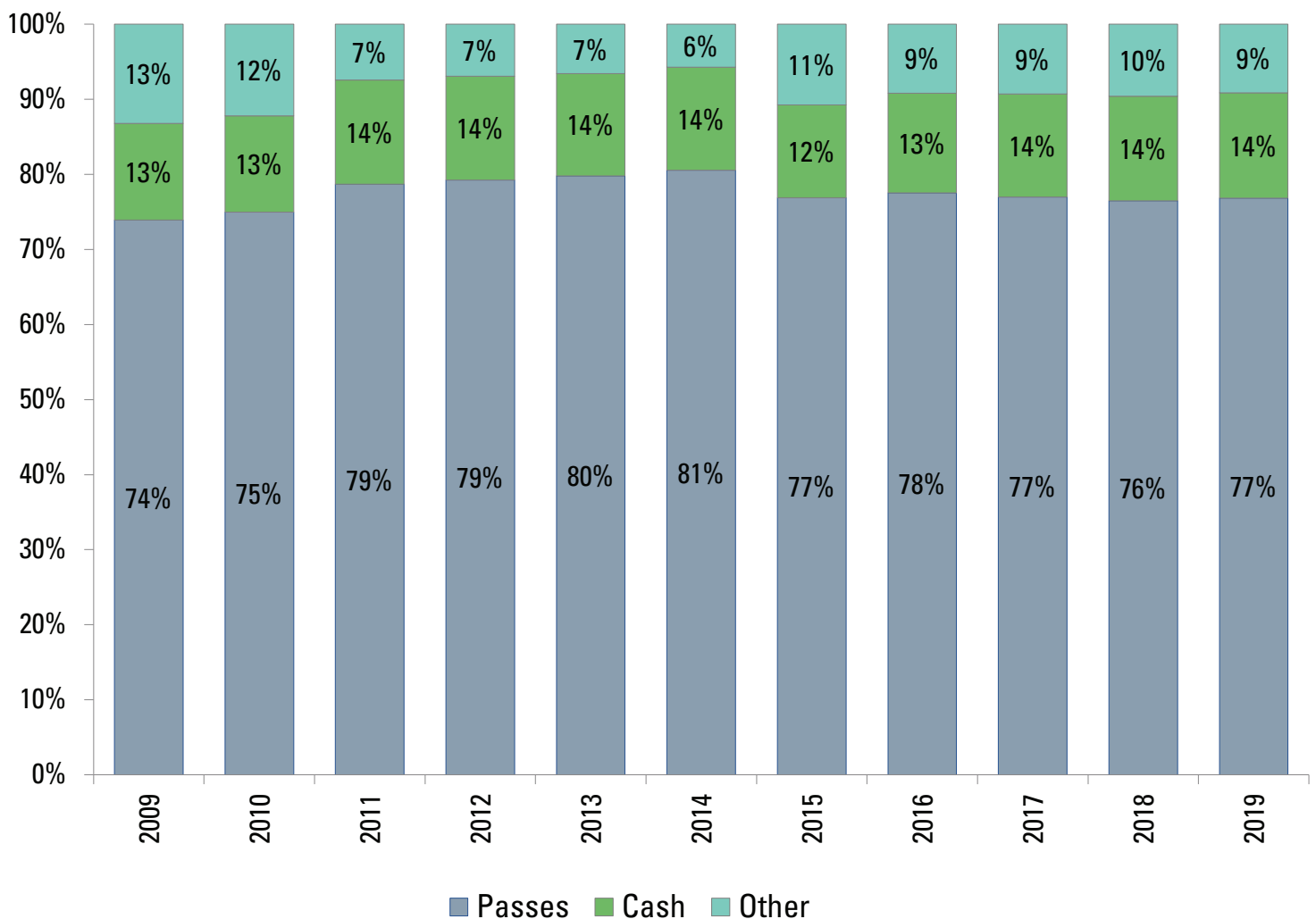
- WWU Student Pass (41%)
- 31-Day & 92-Day Passes (14%)
- Cash Fare (14%)
- Select Passes (9%)
- Free (8%)
- WCC Student Pass (6%)
- Day Passes (4%)
- Student Passes (3%)
- County Connector Passes (0.7%)
- Tokens & Other (0.4%)

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

(2009-2019)



On-Time Performance

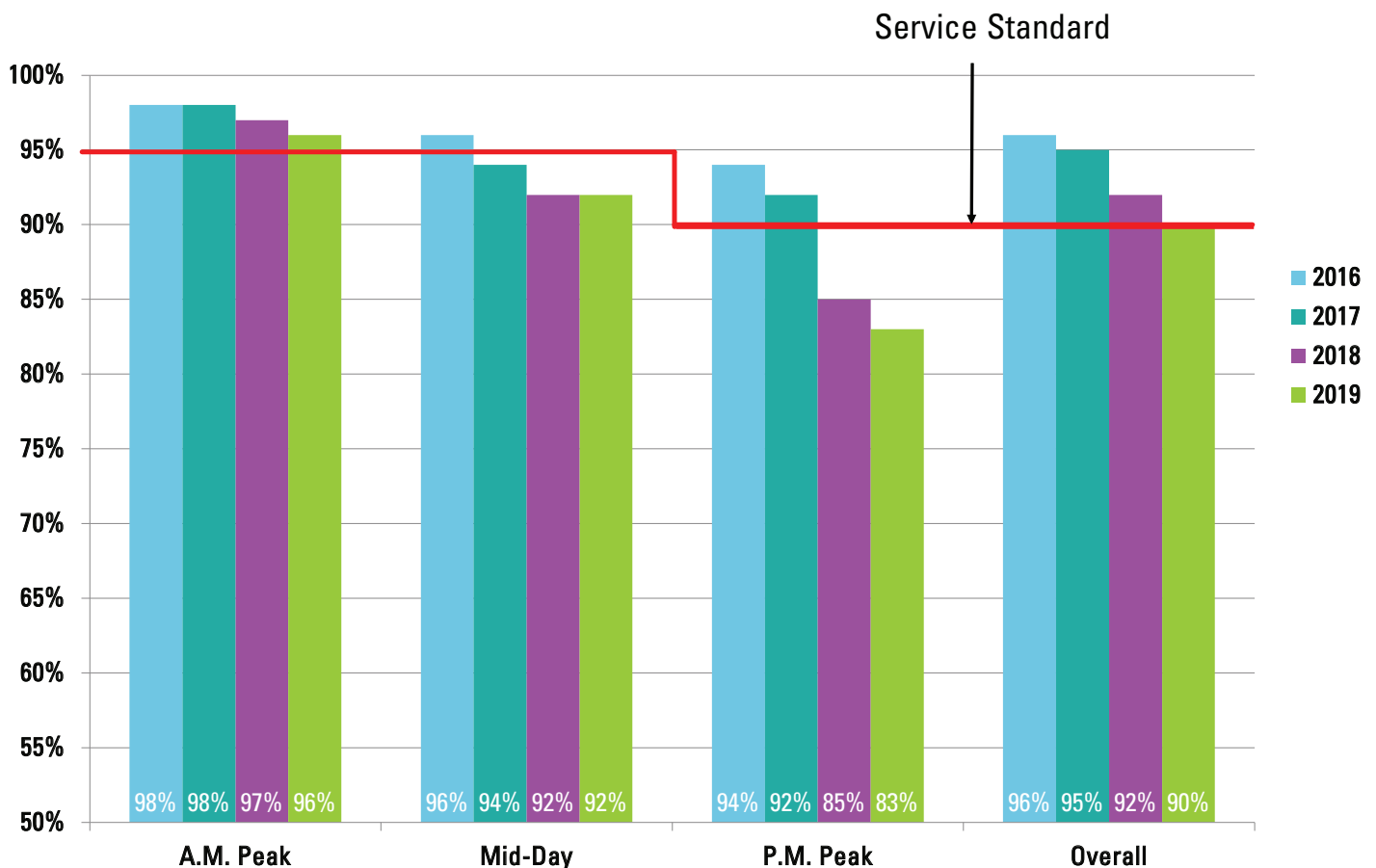
Fixed route service standards for on-time performance were created in the 2005 Strategic Service Plan. The minimum standard for PM Peak trips (3 to 6 pm) is 90% on time. The minimum standard for AM Peak (7 to 10 am) and Non-Peak is 95% on time.

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 reviewed.

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

On-Time Performance

(2016-2019)



Boardings by Route

Boardings	2019	2018	Diff.
1 Fairhaven	173,963	179,050	-3%
3 Airport/Cordata +	96,472	103,838	-7%
4 Hospital/Cordata +	47,345	40,516	17%
5 Fairhaven ^	32,495	70,401	-54%
11 32nd St ^	64,364	104,486	-38%
14 Fairhaven	380,402	395,768	-4%
15 Cordata/WCC	172,934	169,906	2%
24 Cordata	78,292	80,606	-3%
26 Lynden +	76,500	68,282	12%
27 Ferndale	96,292	101,383	-5%
48 Bakerview Spur	1,677	1,591	5%
49 Bakerview Spur	8,586	10,260	-16%
50 Gooseberry Pt +	73,194	66,969	9%
65 Everson/Nooksack ^	1,545	3,647	-58%
71X E/N/S	24,268	21,948	11%
72X Kendall	53,270	52,066	2%
75 Birch Bay/Blaine	55,080	54,194	2%
80X Mt. Vernon	33,956	33,758	1%
92 WWU ^	28,209	45,083	-37%
105 Fairhaven *	107,052	n/a	n/a
107 WWU	88,851	87,767	1%
108 Samish/WWU	109,318	101,512	8%
190 Lincoln Creek	625,696	879,983	-29%
196 WWU/Lincoln *	57,758	n/a	n/a
197 Lincoln/WWU *	58,867	n/a	n/a
232 Cordata/WCC	495,663	511,472	-3%
331 Cordata/WCC	687,966	657,553	5%
512 Sudden Valley	113,997	115,846	-2%
525 Electric +	65,651	56,051	17%
533 Yew St +	50,097	52,466	-5%
540 Sunset	83,604	92,974	-10%
WWU Shuttles	408,143	383,160	7%
Total	4,451,508	4,542,536	-2%

* new route June 2019

+ modified route June 2019

^discontinued route June 2019

Revenue Hours by Route

	Revenue Hours	2019	2018	Diff.
	1 Fairhaven	7,262	7,338	-1%
	3 Airport/Cordata +	5,149	4,769	8%
	4 Hospital/Cordata +	4,535	3,550	28%
	5 Fairhaven ^	1,866	4,083	-54%
	11 32nd St ^	931	1,321	-30%
	14 Fairhaven	7,262	7,260	0%
	15 Cordata/WCC	7,148	7,125	0%
	24 Cordata	3,387	3,370	1%
	26 Lynden +	5,283	5,265	0%
	27 Ferndale	6,213	6,039	3%
* new route June 2019	48 Bakerview Spur	456	455	0%
	49 Bakerview Spur	1,192	1,167	2%
+ modified route June 2019	50 Gooseberry Pt +	4,643	4,385	6%
	65 Everson/Nooksack ^	1,168	2,510	-53%
^discontinued route June 2019	71X E/N/S	2,719	2,714	0%
	72X Kendall	5,032	5,022	0%
	75 Birch Bay/Blaine	6,687	6,817	-2%
	80X Mt. Vernon	2,792	2,832	-1%
	92 WWU ^	557	877	-36%
	105 Fairhaven *	3,462	n/a	n/a
	107 WWU	1,769	1,737	2%
	108 Samish/WWU	2,329	1,632	43%
	190 Lincoln Creek	10,385	13,677	-24%
	196 WWU/Lincoln *	1,452	n/a	n/a
	197 Lincoln/WWU *	1,462	n/a	n/a
	232 Cordata/WCC	15,013	14,112	6%
	331 Cordata/WCC	21,575	20,280	6%
	512 Sudden Valley	5,279	5,262	0%
	525 Electric +	3,679	2,705	36%
	533 Yew St +	3,167	3,773	-16%
	540 Sunset	4,501	4,501	0%
	WWU Shuttles	4,270	3,905	9%
	Total	152,623	148,483	3%

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.



	2019	2018	Diff.
Boardings	216,928	213,955	1%
Revenue Hours	75,645	72,242	5%
Revenue Miles	960,097	929,655	3%
Passenger Miles	1,136,130	1,169,065	-3%
Boardings per Hour	2.9	3.0	-3%
Pax Miles per Hour	15.0	16.2	-7%
Pax Mi. per Boarding	5.2	5.5	-5%

1%

increase in
boardings
from 2018.

3,403

additional
revenue hours
in 2019.



2.9

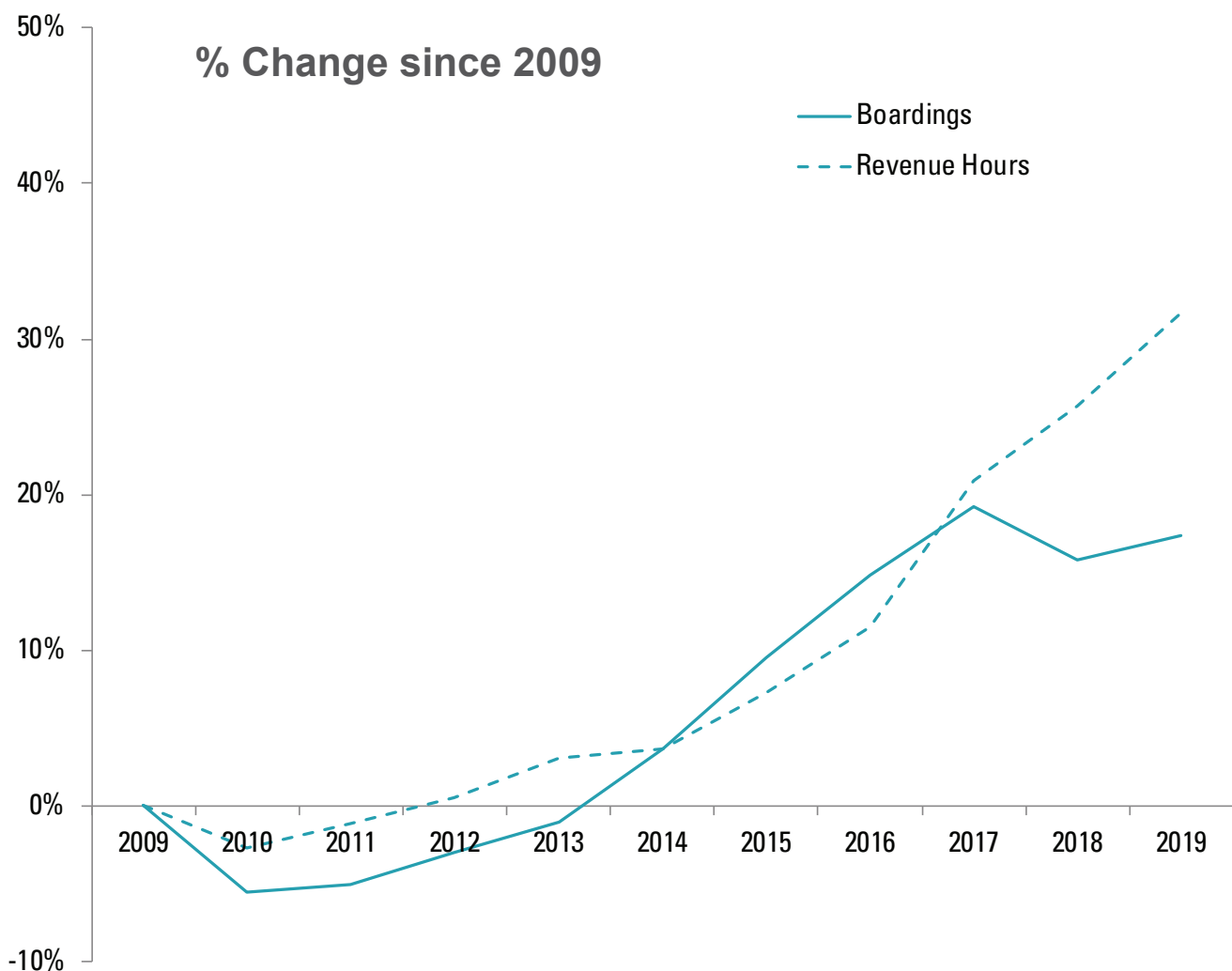
**boardings per
hour** in 2019.

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.

	2019	2009	Diff.
Boardings	216,928	184,803	17%
Rev. Hours	75,645	57,451	32%

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.



	2019	2018	Diff.
Boardings	2,010	1,753	15%
Revenue Hours	1,033	1,034	0%
Revenue Miles	25,604	23,732	8%
Passenger Miles	31,285	29,995	4%
Boardings per Hour	1.9	1.7	12%
Pax Miles per Hour	30.3	29.0	4%
Pax Mi. per Boarding	15.6	17.1	-9%

15%

increase in
boardings
from 2018.

15.6

passenger
miles per
boarding in
2019.

1.9

boardings per
hour in 2019.

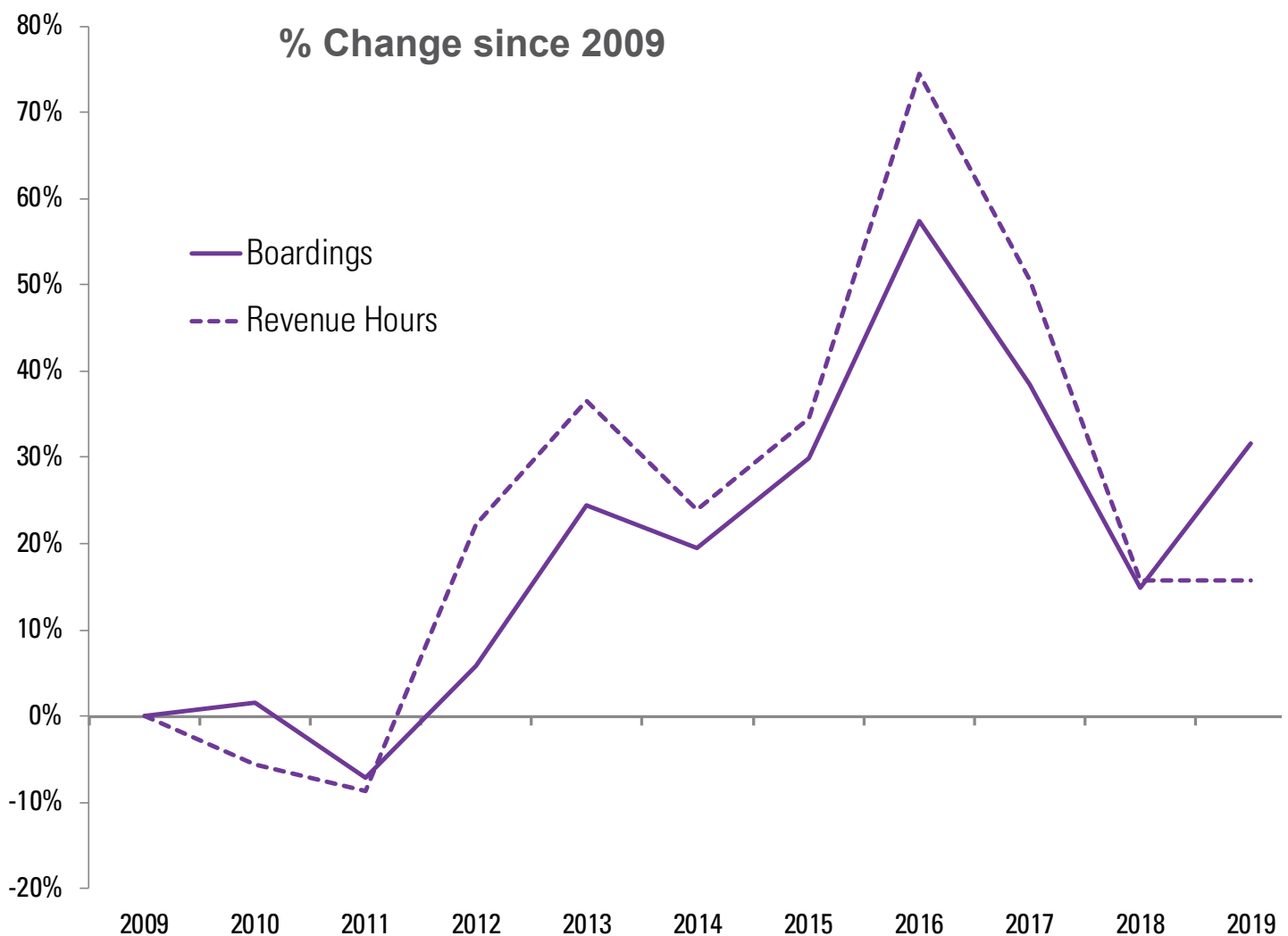


Zone Service Change

10-Year Change

The average distance of a zone service ride in 2019 was 15.6 miles. Boardings are highly variable year to year on Zone Service and are heavily influenced by a small number of riders who ride frequently.

	2019	2009	Diff.
Boardings	2,010	1,527	32%
Rev. Hours	1,033	893	16%



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 2019, boardings were down -30%. Vanpool ridership has been in decline at most transit agencies in recent years.



	2019	2018	Diff.
Boardings	33,361	47,591	-30%
Revenue Hours	4,322	7,502	-42%
Revenue Miles	238,833	406,554	-41%
Passenger Miles	1,254,044	1,977,967	-37%
Boardings per Hour	7.7	6.3	22%
Pax Miles per Hour	290.1	263.7	10%
Pax Mi. per Boarding	37.6	41.6	-10%

-30%

decrease in
boardings
from 2018.

37.6

passenger miles
per boarding in
2019.

290

passenger
miles per
hour in 2019.



10-Year Change

In the last 10 years, boardings have decreased -66%. The average vanpool commute was 75 miles round-trip in 2019.

	2019	2009	Diff.
Boardings	33,361	98,644	-66%
Rev. Hours	4,322	12,343	-65%
Pax Mi. per Boarding	37.6	39.7	-5%
Vans in Service (average)	13	31	-58%

% Change since 2009

