

Whatcom Transportation Authority

Service Performance Report

2017



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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 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 2017 totals for each type of service WTA offers.

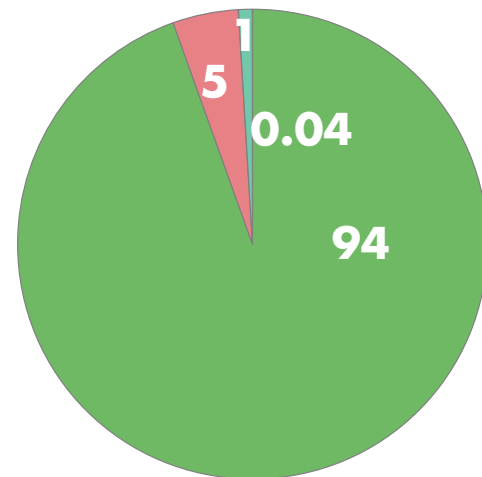
2017	Fixed Route	Paratransit	Zone	Vanpool
				
Boardings	4,602,021	220,327	2,114	46,492
Revenue Hours	142,321	69,466	1,344	7,371
Revenue Miles	2,014,058	897,031	29,219	396,942
Passenger Miles	13,276,920	1,248,269	36,776	1,845,150
Boardings per Hour	32.3	3.2	1.6	6.3
Passenger Miles per Hour	93.3	18.0	27.4	250.3
Passenger Miles per Boarding	2.9	5.7	17.4	39.7

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 94% of all boardings.

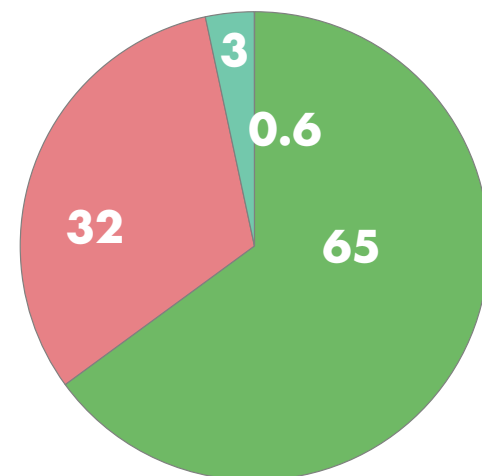
2017



Boardings

Revenue Hours

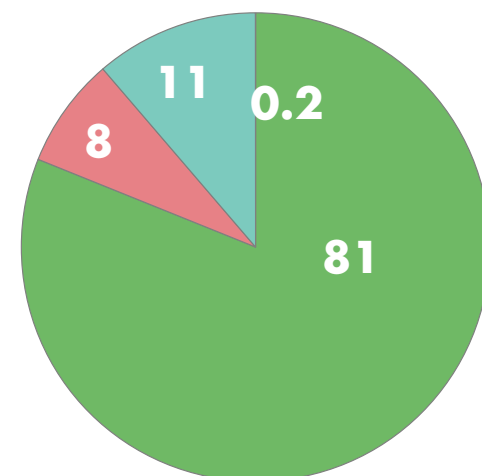
Revenue hours are number of hours the bus is in service, including layover time. Paratransit accounts for 5% of all boardings, yet it provides 32% of all revenue hours.



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 11% of all passenger miles.



Passenger Miles

% of total



Boardings Comparison

2017 vs. 2016

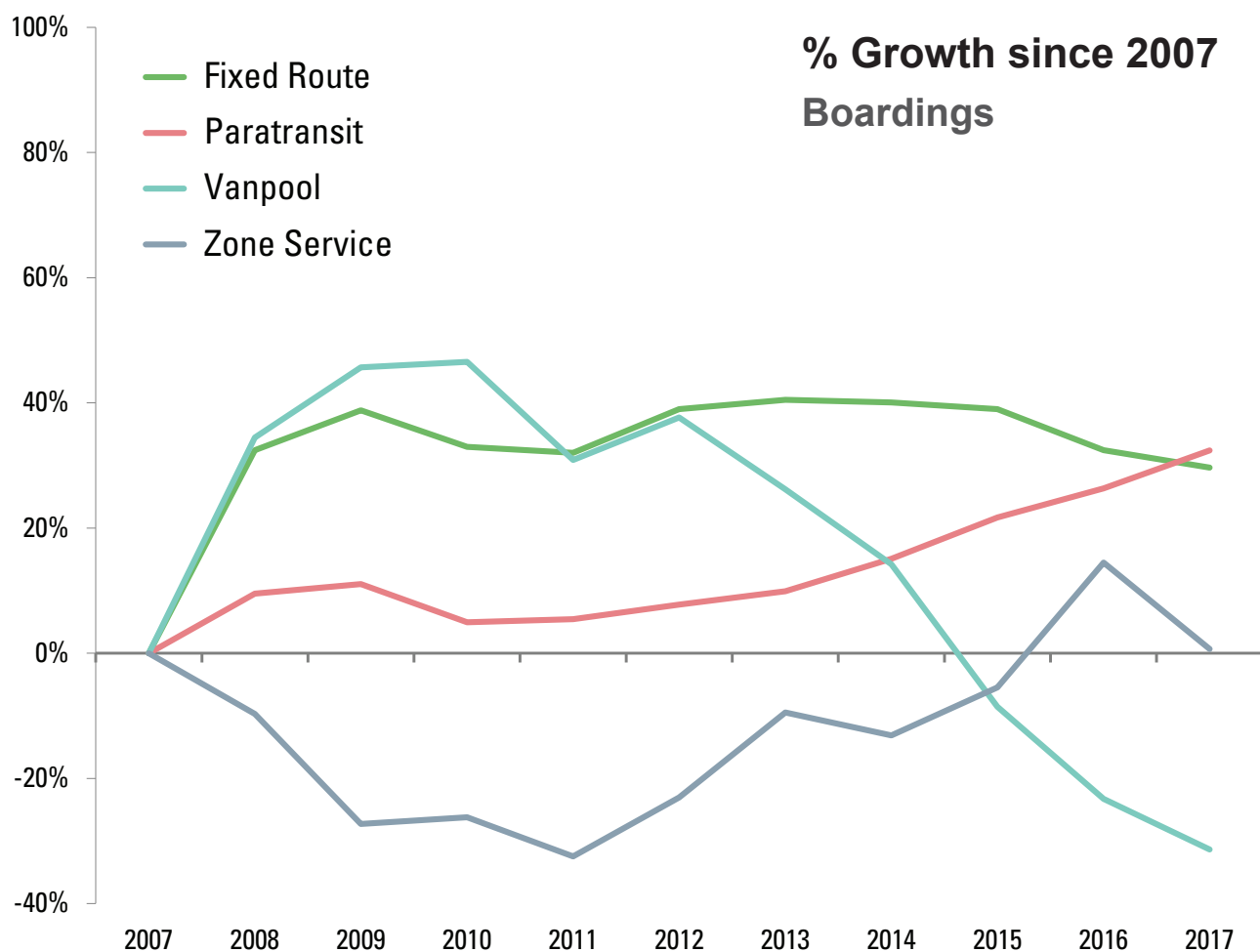
Fixed Route boardings were slightly down (-2%), Both Vanpool and Zone service had decreases in boardings with decreases of -10% and -12% respectively. Paratransit service had an increase in boardings of 4%.

	2017	2016	Diff.
Fixed Route	4,602,021	4,701,668	-2%
Paratransit	220,327	212,163	4%
Vanpool	46,492	51,944	-10%
Zone Service	2,114	2,404	-12%

10-Year Growth

Of the four types of service, paratransit has seen the largest percentage increase in boardings compared to 2007. The graph below shows the growth in boardings since 2007.

	2017	2007	Diff.
Fixed Route	4,602,021	3,549,948	30%
Paratransit	220,327	166,398	32%
Vanpool	46,492	67,709	-31%
Zone Service	2,114	2,100	1%



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 2017, there were 99,647 fewer boardings than 2016.

The data for passenger miles is collected by surveyors through a random sampling of all trips. Total passenger miles was down -3%.

In 2017, revenue hours were up 8%. WTA implemented two service expansions in 2017, one in March and one in September.

	2017	2016	Diff.
Boardings	4,602,021	4,701,668	-2%
Revenue Hours	142,321	131,757	8%
Revenue Miles	2,014,058	1,831,845	10%
Passenger Miles	13,276,920	13,714,443	-3%
Boardings per Hour	32.3	35.7	-9%
Pass. Mi. per Hour	93.3	104.1	-10%
Pass. Mi. per Boarding	2.9	2.9	-1%

-2%

decrease in
boardings
from 2016.

32.3

boardings
per hour in
2017.

2.9

pax. miles per
boardings in
2017.



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.

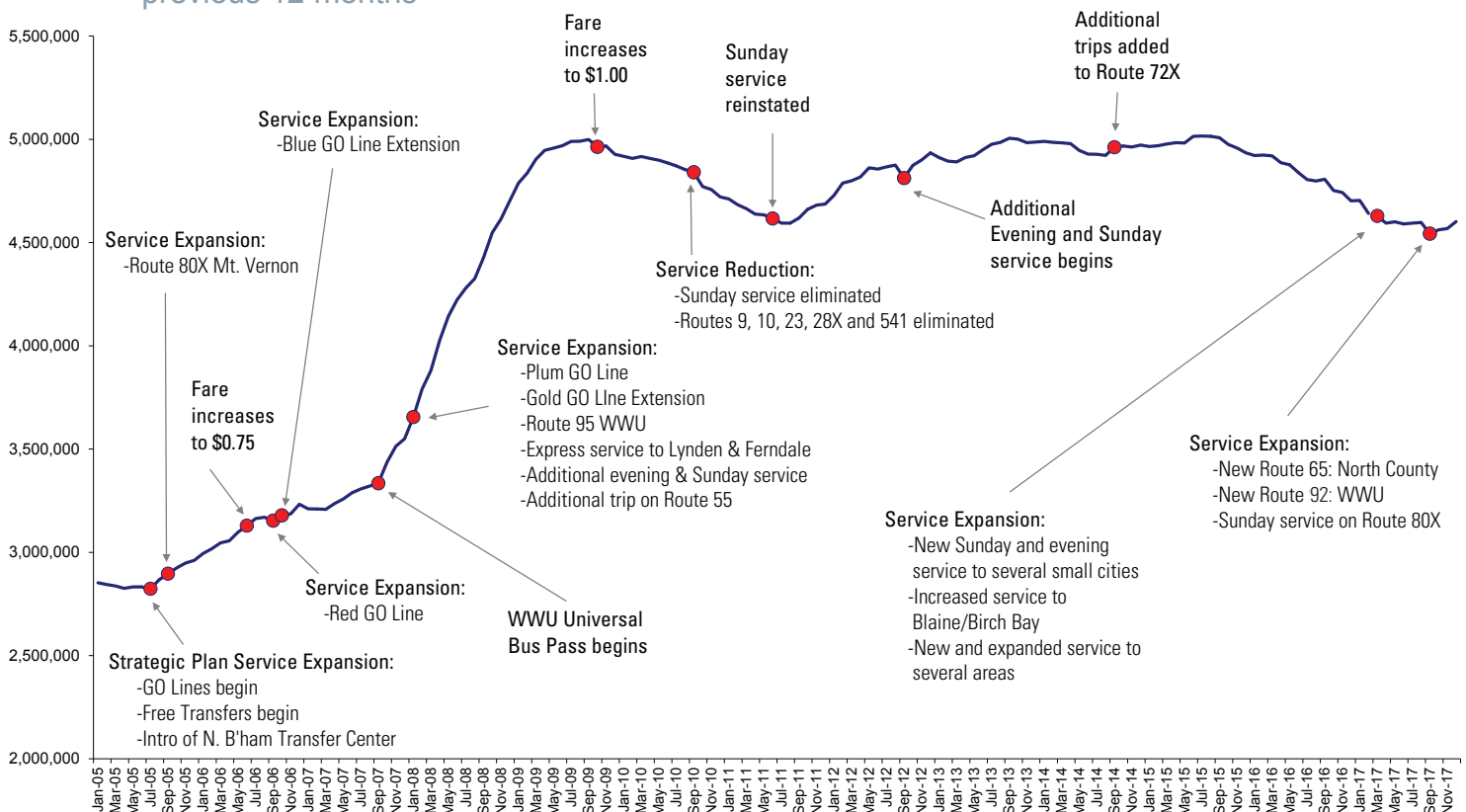
In 2010, a 14% service cut was necessitated by reduced revenues due to the recession. Approximately half of that was restored less than a year later due to funding from Bellingham's Transportation Benefit District.

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.

On the graph below, each data point represents the total boardings for the previous 12 months.

Boardings (2005-2017)

data points equal the sum of previous 12 months

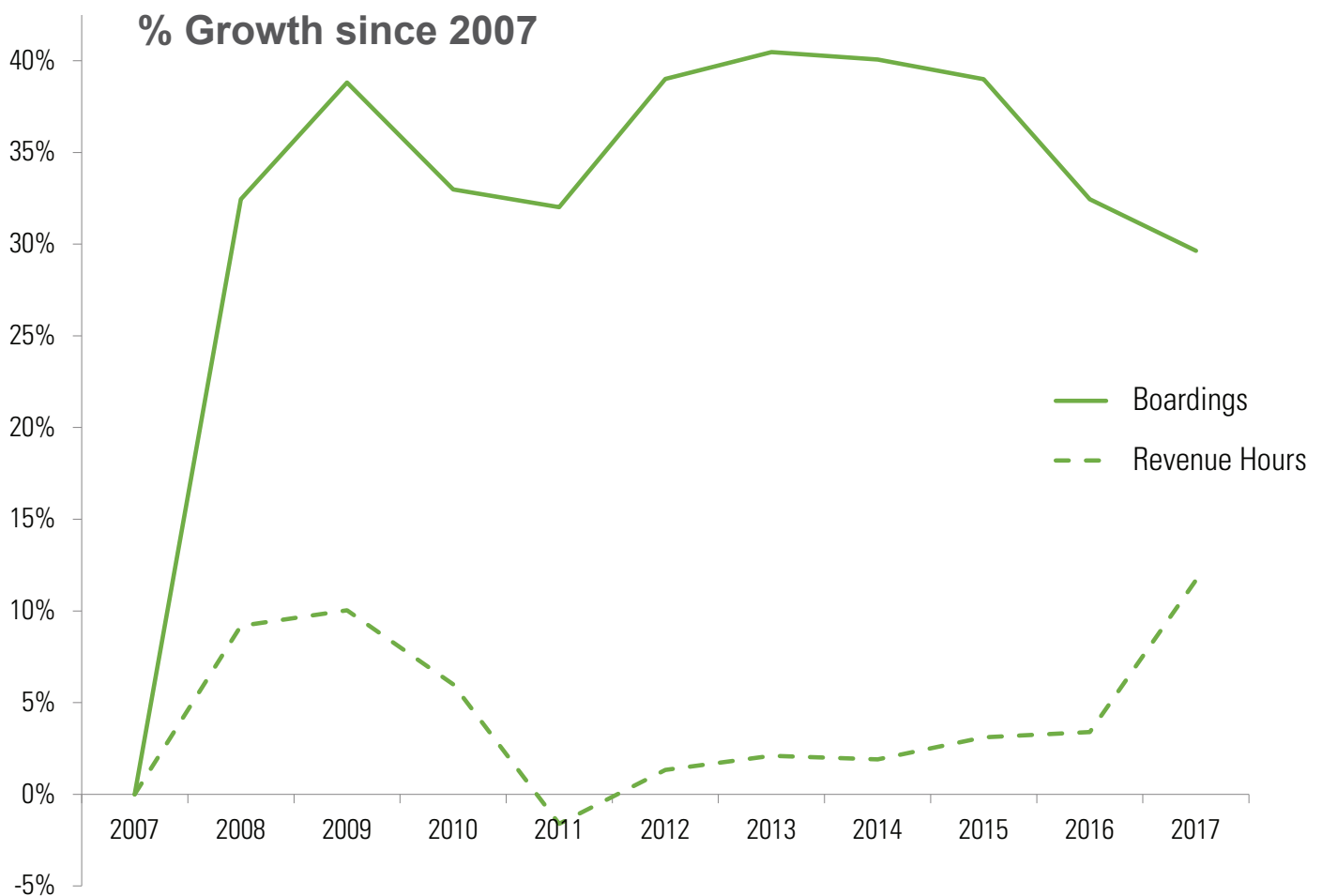


Fixed Route Growth

10-Year Growth

In September of 2007, WTA introduced the universal bus pass program for WWU students. Every WWU student registered for six or more credits is assessed a quarterly transportation fee of \$25.00. The fee covers a WTA bus pass and a WWU-operated late night shuttle service.

	2017	2007	Diff.
Boardings	4,602,021	3,549,948	30%
Rev. Hours	142,321	127,437	12%



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.

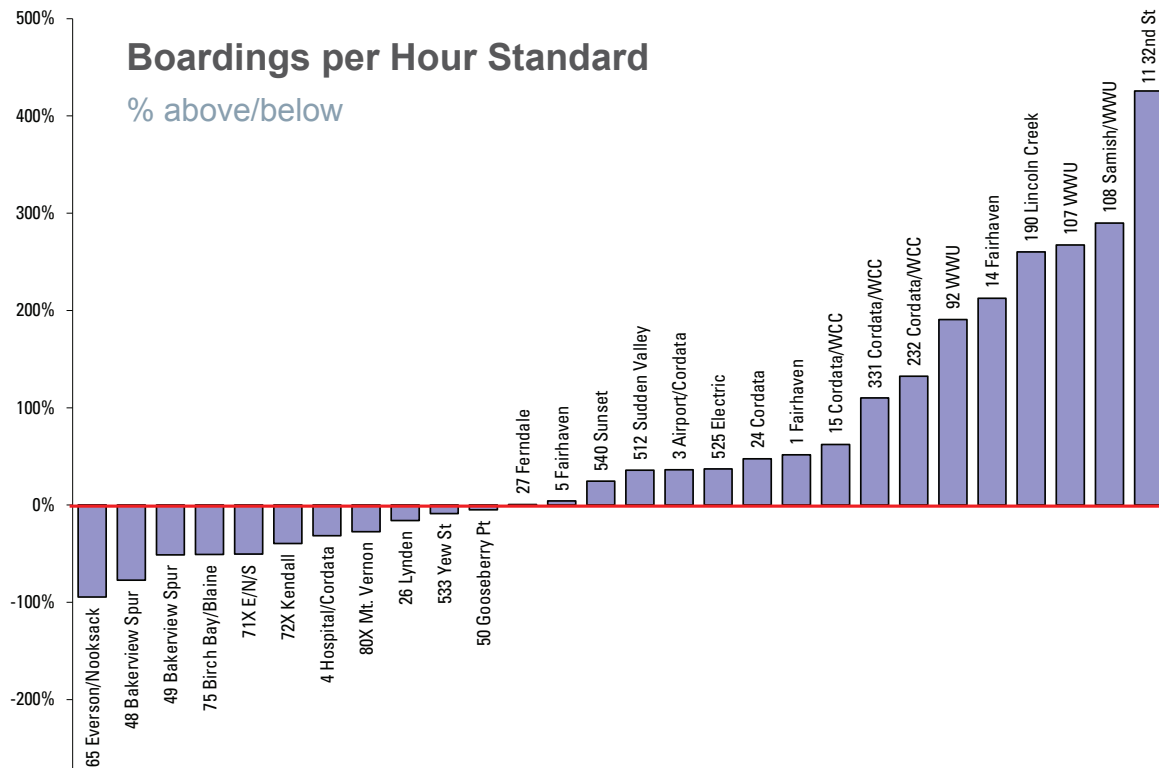
As stated in the 2005 Strategic Plan, a route is considered failing if it is below both 50% of average boardings per revenue hour *and* 75% of average passenger miles per revenue hour for a given year. The routes in the black box are those routes that are considered failing.

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.

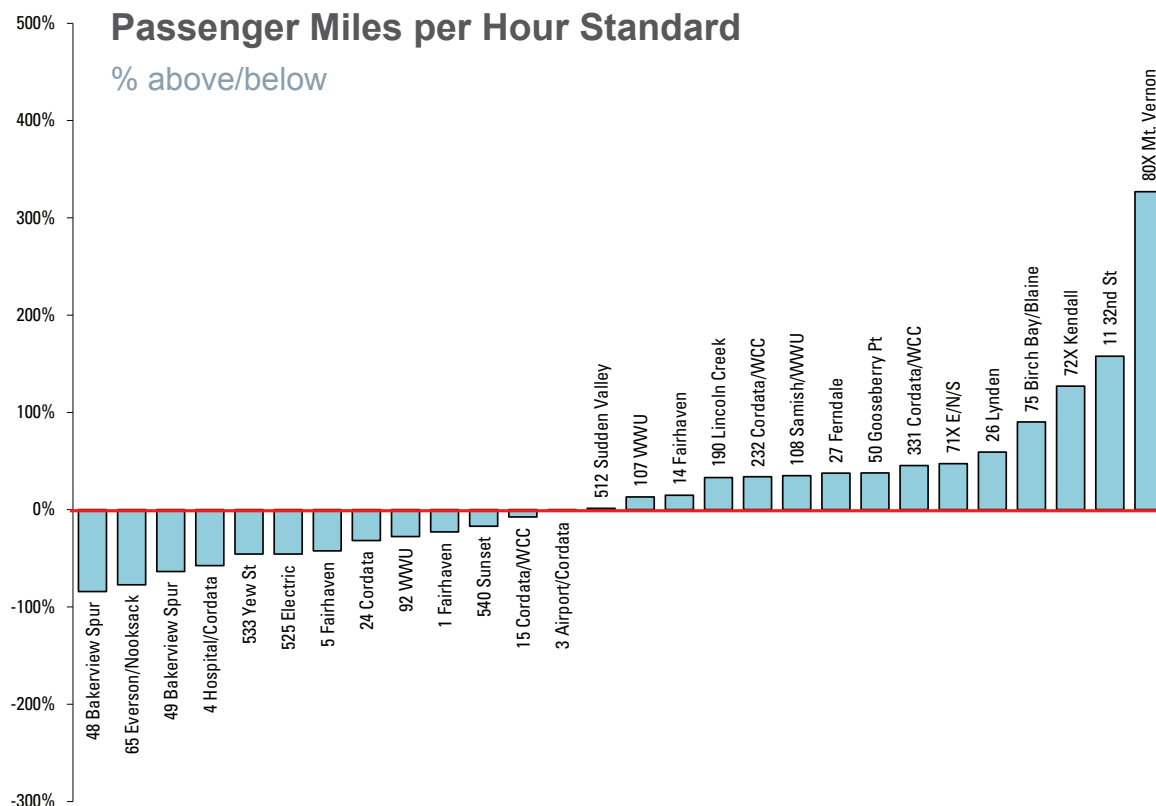
		Boardings per Hour		
% of System Average		Less than 50% (0-16.1)	Between 50-74% (16.2-24.1)	75% & Above (24.2+)
Passenger Miles per Hour	100% & Above (93.3+)	26 Lynden 50 Gooseberry Pt 71X E/N/S 72X Kendall 75 Blaine/Birch Bay 80X Mt. Vernon	27 Ferndale	11 WWU 108 Samish/WWU 232 Cordata/WCC 331 Cordata/WCC
	Between 75-99% (70.0-93.2)	NONE	512 Sudden Valley	14 Fairhaven 107 WWU/Samish 190 Lincoln St
	Less than 75% (0-69.9)	4 Hospital 48 Bakerview Spur 49 Bakerview Spur 65 Everson/Nooksack 533 Yew St	3 Airport/Cordata 5 Fairhaven 24 Cordata 525 Electric 540 Sunset	1 Fairhaven 15 Cordata/WCC 92 WWU

Productivity Standards

The service standard for boardings per hour is at least **50%** of the system average of **32.3**.

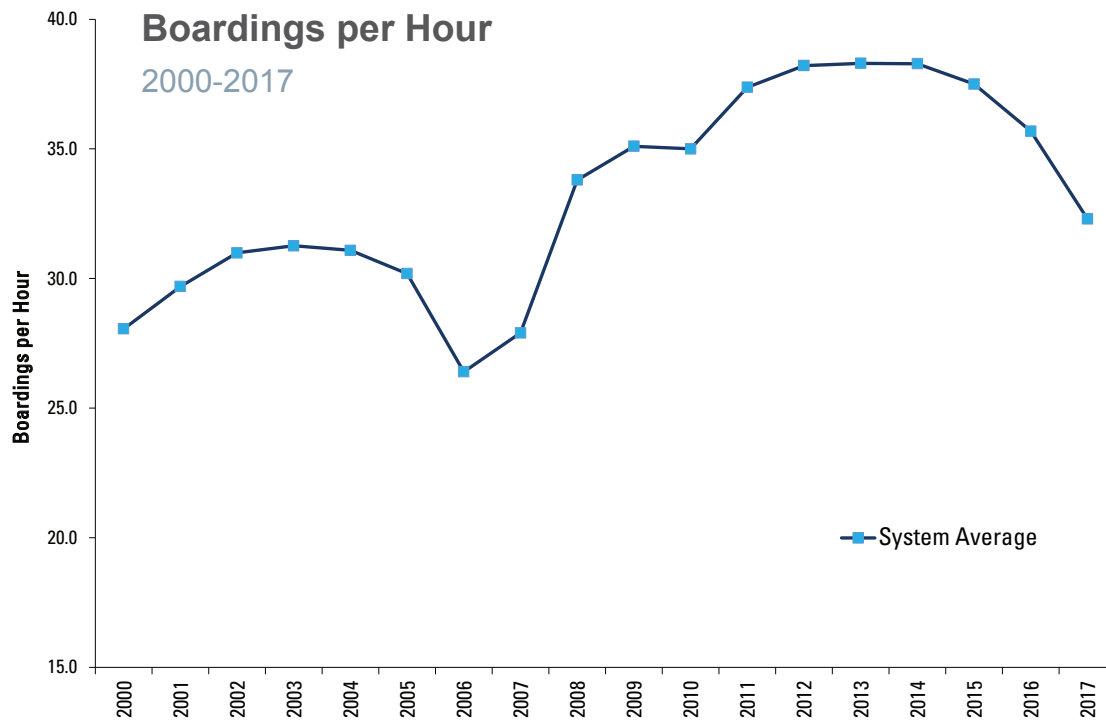


The service standard for passenger miles per hour is at least **75%** of the system average of **93.3**.

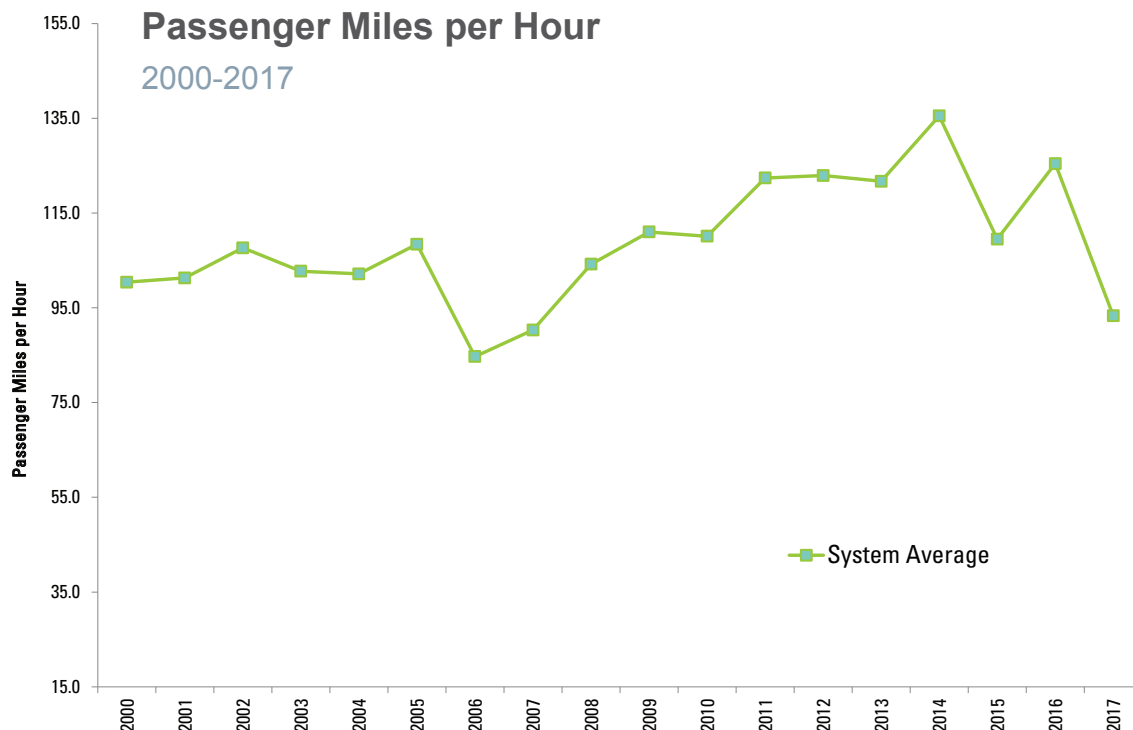


Productivity History

In 2017, the fixed route system average was **32.3** boardings per hour.



In 2017, the fixed route system average was **93.3** passenger miles per hour.



Fixed Route Fares

The fixed route cash fare is \$1.00 per ride. WTA offers "Select" (reduced cost) bus passes for seniors (65 and older) and people with disabilities. Those who qualify for reduced fare also receive a 50% cash fare discount.

The student bus pass is for students age 8 through college. Every WWU student registered for six or more credits is assessed a quarterly transportation fee of \$25.00. The fee covers a WTA bus pass and a WWU-operated late night shuttle service.

In January 2017, WTA introduced the universal bus pass program for Whatcom Community College (WCC) Students. Through the agreement, all currently enrolled WCC students have pre-paid access to WTA's system. Students pay a fee to WCC. WCC then pays WTA based on eligible student enrollment. WTA offers prepaid access at a significant discount, in exchange for the ability to get a bus pass into the pocket of every student, including those participating in the Running Start program.

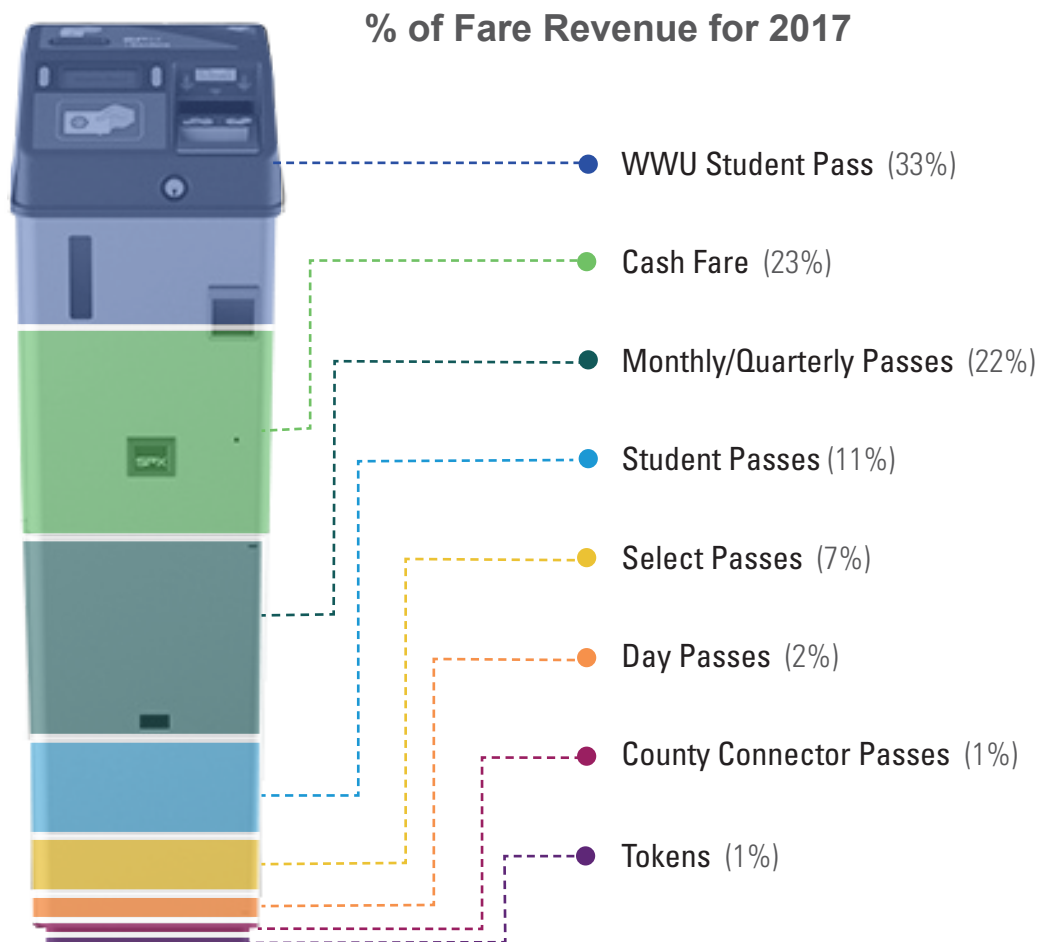
Fares

Single Ride	\$1
Reduced Fare Single Ride	\$0.50
Ages under 8 and 75+	Free
Day Pass	\$3
Skagit/Whatcom Day Pass	\$6
Monthly Pass	\$25
Quarterly Pass	\$70
Select (reduced) Monthly Pass	\$13
Select (reduced) Quarterly Pass	\$35
Student Monthly Pass	\$15
Student Quarterly Pass	\$40
County Connector 31-day Pass	\$50
County Connector 31-day Pass - (Student & Select)	\$25



Revenue by Fare Type

	2017	2016	Diff.	
WWU Student Pass	\$836,791	\$806,313	4%	
Cash Fare	\$574,374	\$584,487	-2%	
Monthly/Quarterly Passes	\$552,105	\$533,295	4%	
Student Passes *	\$281,632	\$206,750	36%	
Select Passes	\$179,051	\$191,387	-6%	* Student Passes includes the WCC universal bus pass.
Day Passes	\$54,783	\$45,651	20%	
County Connector Passes	\$33,677	\$35,782	-6%	
Tokens	\$24,780	\$23,820	4%	
Total	\$2,537,193	\$2,427,485	5%	



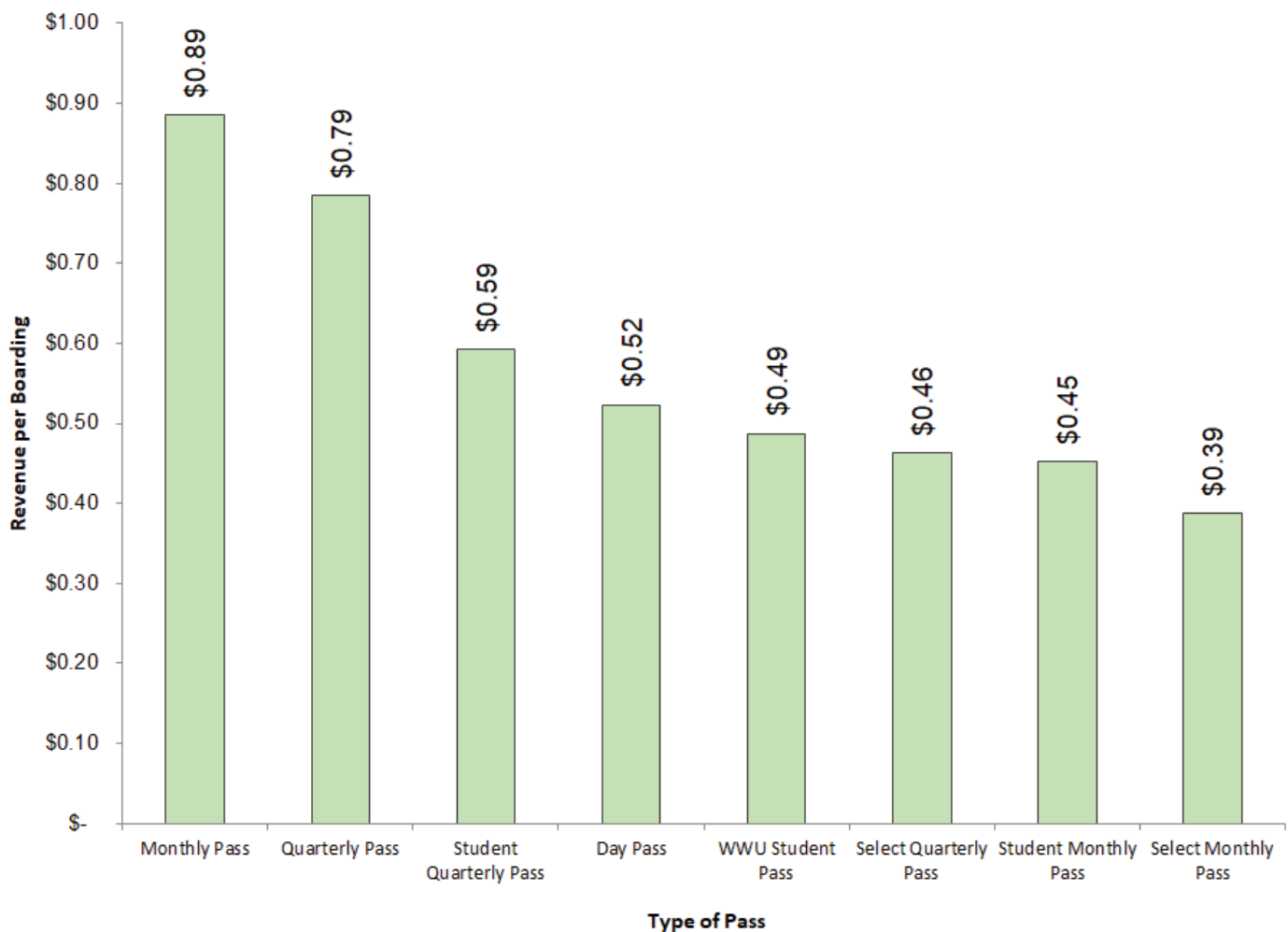
Revenue per Boarding

The graph below shows how much revenue is collected per boarding for each type of pass. The more times a person uses their pass, the cheaper each ride becomes.



Revenue per Boarding by Pass Type

2017

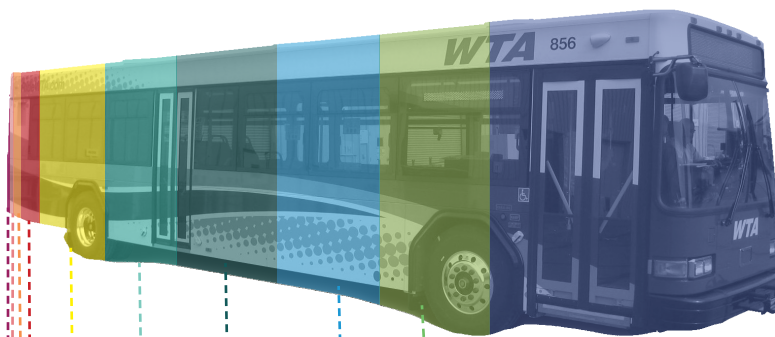


Boardings by Fare Type

	2017	2016	Diff.
WWU Student Pass	1,717,014	1,873,522	-8%
Monthly/Quarterly Passes	647,723	667,056	-3%
Cash Fare	633,284	624,229	1%
Student Passes	604,304	474,175	27%
Select Passes	427,358	517,999	-17%
Free *	388,929	394,459	-1%
Day Passes	104,702	77,518	35%
County Connector Passes	40,438	35,354	14%
Tokens	21,534	20,604	5%
Other	16,735	16,752	-0.1%
Total	4,602,021	4,701,668	-2%

Student pass boardings went up 27%. This increase includes the Whatcom Community College universal bus pass which was implemented in January 2017.

* 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
2017

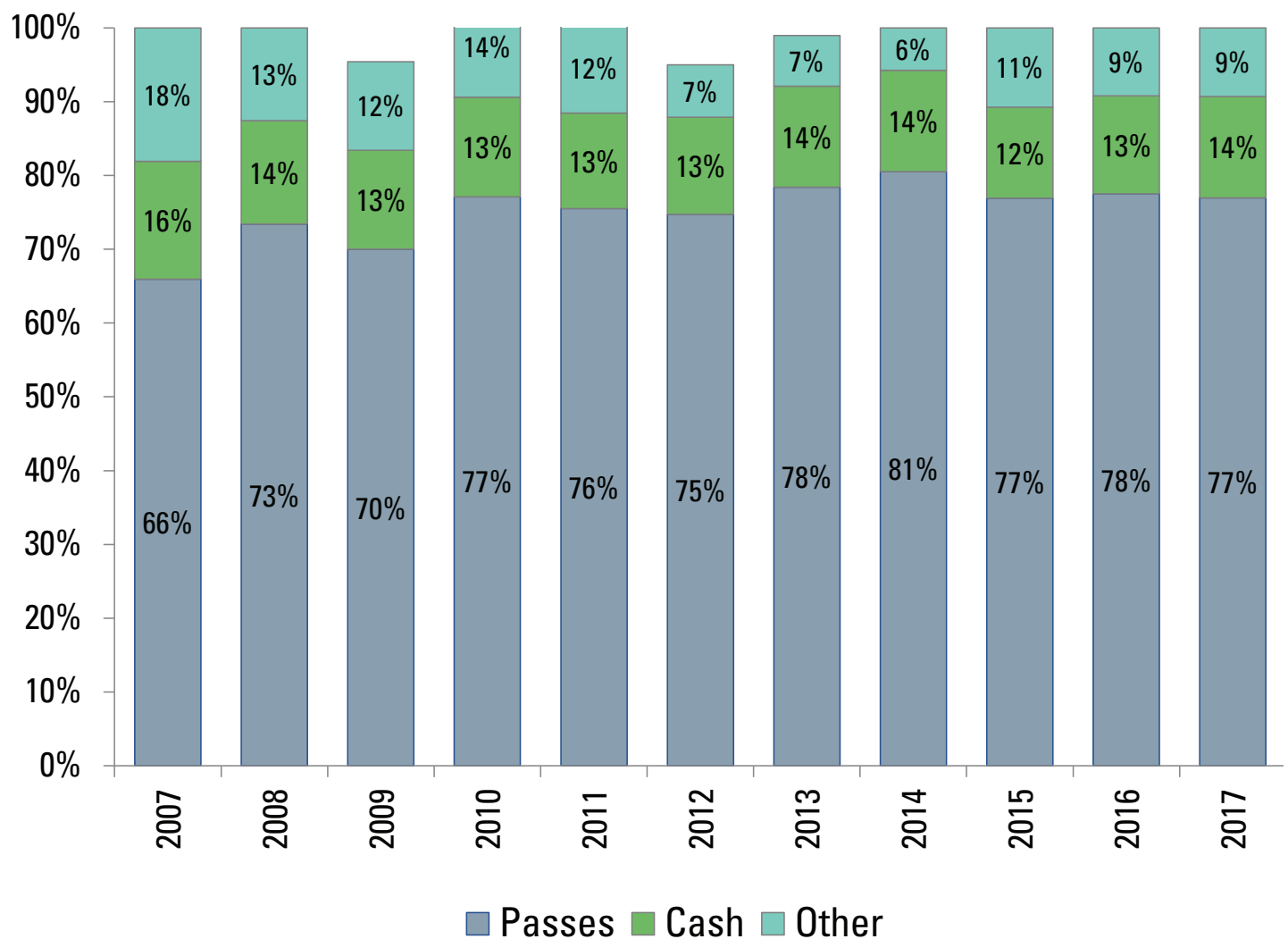
- WWU Student Pass (37%)
- Monthly & Quarterly Passes (14%)
- Cash Fare (14%)
- Student Passes (13%)
- Select Passes (9%)
- Free (8%)
- Day Pass (2%)
- County Connector Passes (1%)
- Tokens (0.5%)
- Other (0.4%)

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

(2007-2017)



On-Time Performance

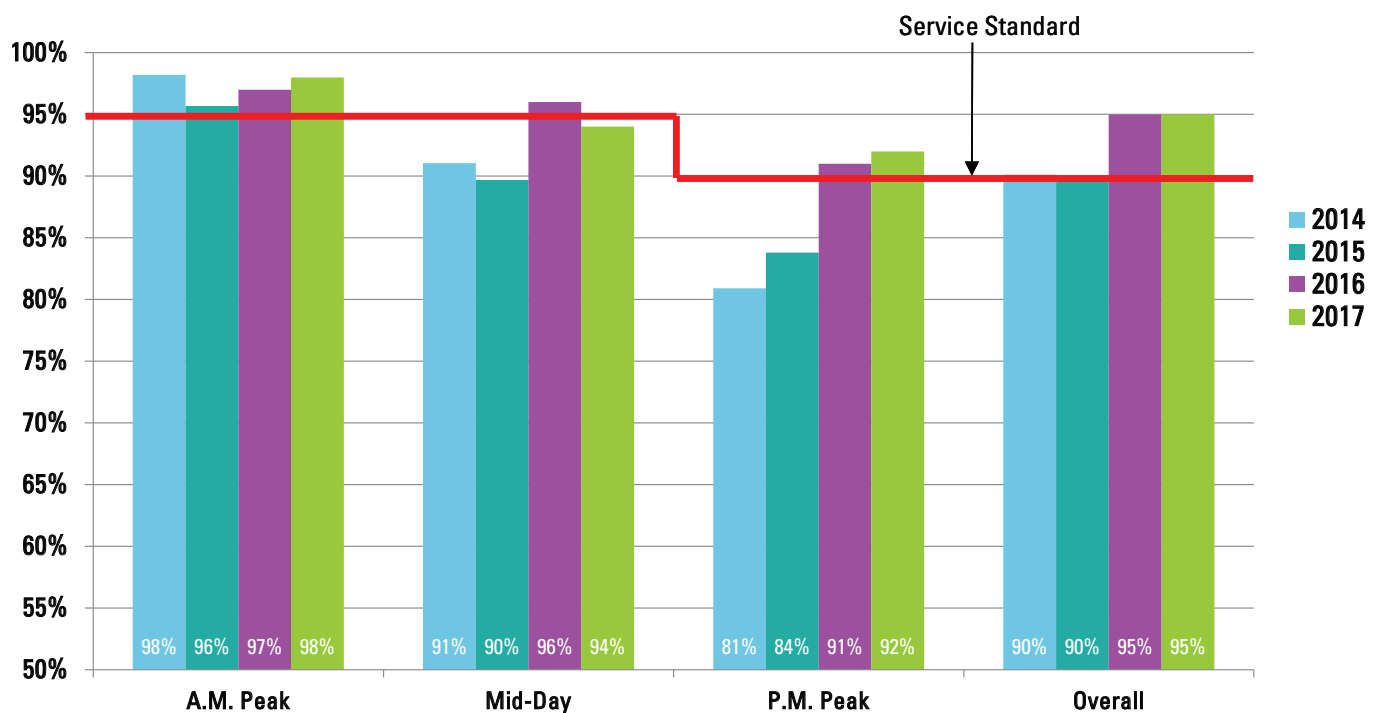
Fixed route service standards for on-time performance were created in the 2005 Strategic Service Plan. The minimum standard for PM Peak trips (3 to 6 pm) is 90% on time. The minimum standard for AM Peak (7 to 10 am) and Non-Peak is 95% on time.

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

(2004-2017)



Boardings by Route

Boardings	2017	2016	Diff.
1 Fairhaven	185,650	207,194	-10%
3/4 Airport/Hospital [^]	148,635	148,432	0.1%
5 Fairhaven *	54,165	n/a	n/a
11 32nd St *	61,493	n/a	n/a
14 Fairhaven	406,609	423,928	-4%
15 Cordata/WCC	195,491	213,595	-8%
24 Cordata [^]	74,387	52,955	40%
25X Lynden **	2,669	11,934	-78%
26 Lynden	69,690	65,161	7%
27 Ferndale	95,578	85,822	11%
43/44 Yew St **	14,169	65,643	-78%
48 Bakerview Spur	1,682	1,947	-14%
49 Bakerview Spur	9,023	8,152	11%
50 Gooseberry Pt	65,370	59,971	9%
55 Blaine/Birch Bay **	4,579	25,765	-82%
65 Everson/Nooksack #	575	n/a	n/a
70X Blaine **	10,668	47,671	-78%
71X E/N/S	22,779	24,904	-9%
72X Kendall	49,313	50,144	-2%
75 Birch Bay/Blaine *	42,317	n/a	n/a
80X Mt. Vernon	32,775	33,555	-2%
90/92 WWU ** #	94,515	244,085	-61%
105 Fairhaven **	85,313	316,335	-73%
107 WWU	138,271	209,446	-34%
108 Samish/WWU	108,618	100,361	8%
190/196/197 Lincoln Creek [^]	774,508	521,710	48%
232 Cordata/WCC	524,814	537,736	-2%
331 Cordata/WCC	663,558	645,618	3%
512 Sudden Valley	114,151	104,587	9%
525 Sunset/Electric [^]	73,459	115,205	-36%
533 Yew St *	43,762	n/a	n/a
540 Sunset/Squalicum H.S. [^]	87,990	81,015	9%
WWU Shuttles	345,445	298,797	16%
Total	4,602,021	4,701,668	-2%

* new routes March 2017

**discontinued routes March 2017

[^] route modified March 2017

new route September 2017

Revenue Hours by Route

	Revenue Hours	2017	2016	Diff.
	1 Fairhaven	7,451	7,926	-6%
	3/4 Airport/Hospital ^	8,111	7,296	11%
	5 Fairhaven *	3,221	n/a	n/a
	11 32nd St *	724	n/a	n/a
	14 Fairhaven	7,235	7,218	0%
	15 Cordata/WCC	7,259	7,782	-7%
	24 Cordata ^	2,975	1,567	90%
	25X Lynden **	140	653	-79%
	26 Lynden	4,958	3,800	30%
	27 Ferndale	5,812	4,994	16%
	43/44 Yew St **	585	2,731	-79%
* new routes March 2017	48 Bakerview Spur	480	416	15%
**discontinued routes March 2017	49 Bakerview Spur	1,138	1,083	5%
	50 Gooseberry Pt	4,203	3,505	20%
	55 Blaine/Birch Bay **	655	3,059	-79%
^ route modified March 2017	65 Everson/Nooksack #	661	n/a	n/a
# new route September 2017	70X Blaine **	491	2,286	-79%
	71X E/N/S	2,741	2,785	-2%
	72X Kendall	4,952	4,707	5%
	75 Birch Bay/Blaine *	5,322	n/a	n/a
	80X Mt. Vernon	2,662	2,245	19%
	90/92 WWU ** #	1,289	3,092	-58%
	105 Fairhaven **	1,351	6,378	-79%
	107 WWU	2,022	3,054	-34%
	108 Samish/WWU	1,664	1,774	-6%
	190/196/197 Lincoln Creek ^	12,335	7,376	67%
	232 Cordata/WCC	13,688	13,329	3%
	331 Cordata/WCC	19,359	18,124	7%
	512 Sudden Valley	4,950	3,755	32%
	525 Sunset/Electric ^	3,057	4,349	-30%
	533 Yew St *	2,970	n/a	n/a
	540 Sunset/Squalicum H.S. ^	4,309	3,574	21%
	WWU Shuttles	3,550	2,902	22%
	Total	142,321	131,757	8%

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 minibus service for people whose disability prevents them from riding fixed route buses. You must qualify and be approved to ride.

There were 2,849 individual riders in 2017, 114 more than 2016. The number of individual riders and boardings both increased at the same rate of 4%.



	2017	2016	Diff.
Boardings	220,327	212,163	4%
Revenue Hours	69,466	64,055	8%
Revenue Miles	897,031	850,529	5%
Passenger Miles	1,248,269	1,258,473	-1%
Boardings per Hour	3.2	3.3	-4%
Pax Miles per Hour	18.0	19.6	-9%
Pax Mi. per Boarding	5.7	5.9	-4%

4%

increase in
boardings
from 2016.

5,411

additional
revenue hours
in 2017.



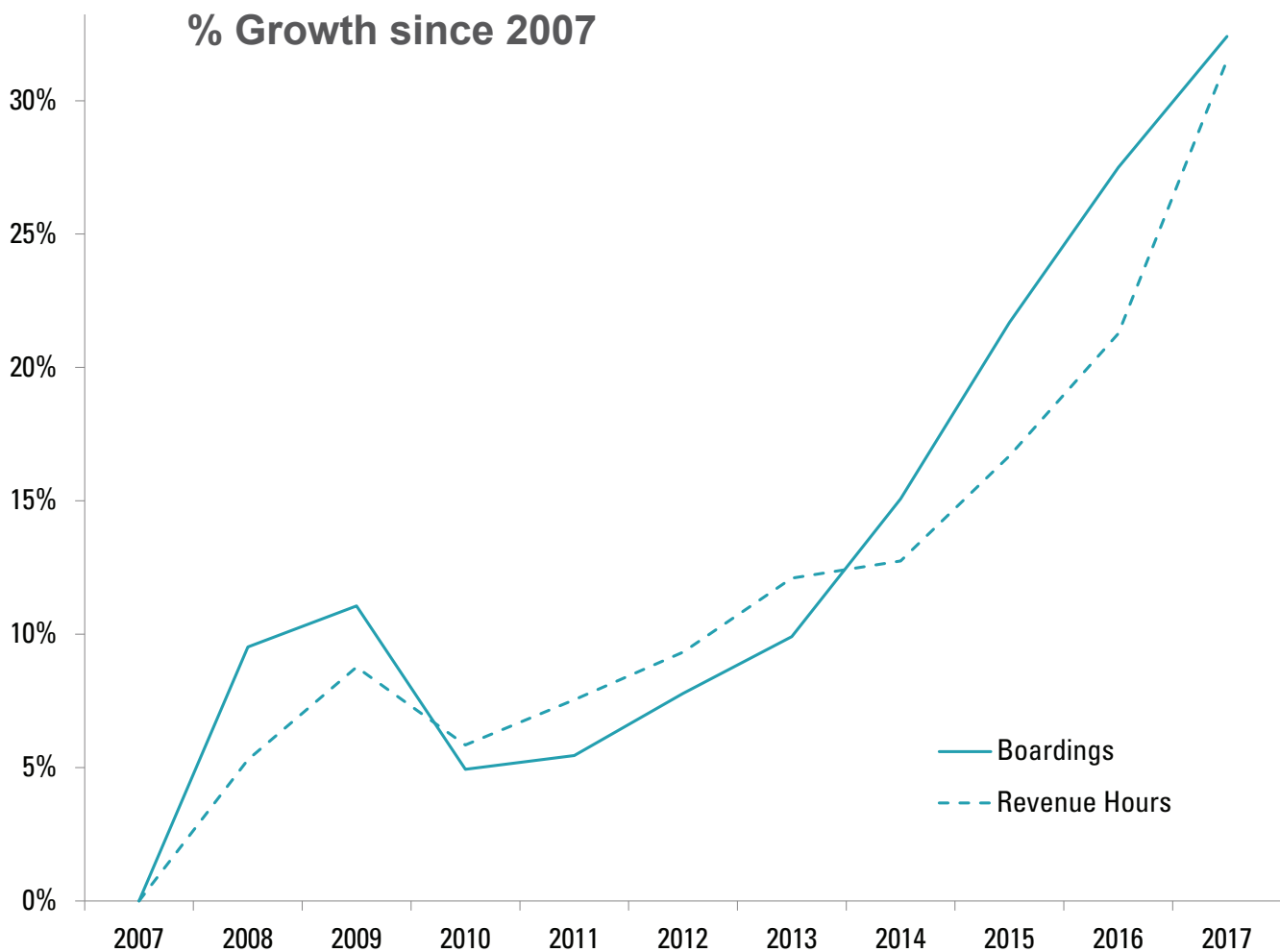
3.2

**boardings per
hour** in 2017.

10-Year Growth

Sunday paratransit service was eliminated September 19, 2010 and restored June 12, 2011 which accounts for the dip in ridership and revenue hours.

	2017	2007	Diff.
Boardings	220,327	166,398	32%
Rev. Hours	69,466	52,818	32%



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.



	2017	2016	Diff.
Boardings	2,114	2,404	-12%
Revenue Hours	1,344	1,559	-14%
Revenue Miles	29,219	35,131	-17%
Passenger Miles	36,776	44,544	-17%
Boardings per Hour	1.6	1.5	2%
Pax Miles per Hour	27.4	28.6	-4%
Pax Mi. per Boarding	17.4	18.5	-6%

-12%

decrease in
boardings
from 2016.

27

passenger
miles per
boarding in
2017.

1.6

boardings per
hour in 2017.

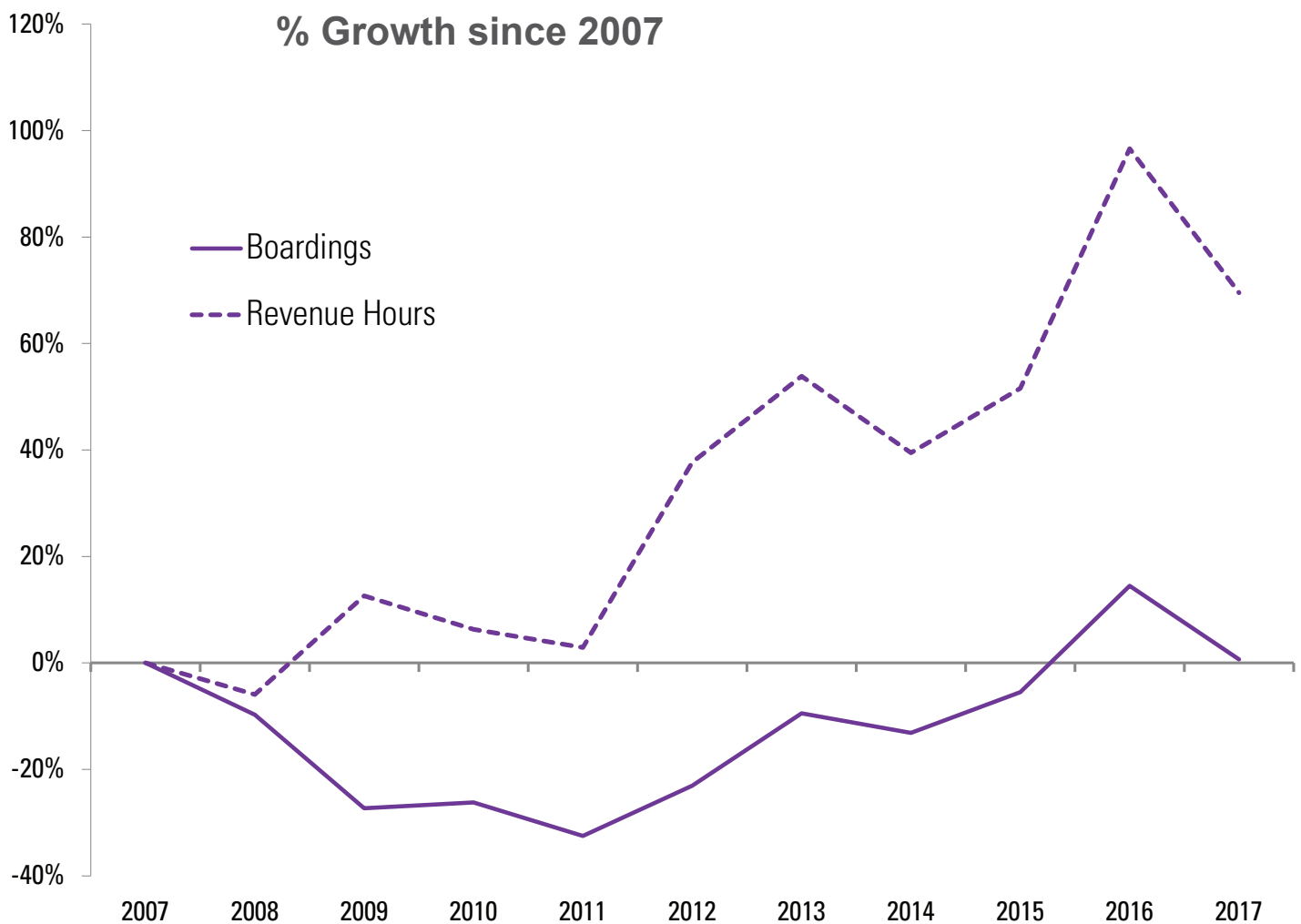


Zone Service Growth

10-Year Growth

The average distance of a zone service ride in 2017 was 17.4 miles.

	2017	2007	Diff.
Boardings	2,114	2,100	1%
Rev. Hours	1,344	793	70%



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 and the number of passengers. Fares cover all fuel, maintenance, insurance and vehicle costs.

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



	2017	2016	Diff.
Boardings	46,492	51,944	-10%
Revenue Hours	7,371	8,006	-8%
Revenue Miles	396,942	443,551	-11%
Passenger Miles	1,845,150	2,122,996	-13%
Boardings per Hour	6.3	6.5	-3%
Pax Miles per Hour	250.3	265.2	-6%
Pax Mi. per Boarding	39.7	40.9	-3%

-10%

decrease in
boardings
from 2016.

39.7

passenger miles
per boarding in
2017.



250

passenger
miles per
hour in 2017.

10-Year Change

The average vanpool commute was 80 miles round-trip in 2017.

	2017	2007	Diff.
Boardings	46,492	67,709	-31%
Rev. Hours	7,371	8,760	-16%
Pax Mi. per Boarding	39.7	42.1	-6%
Vans in Service (average)	23	21	10%

% Change since 2007

