

Annual Route Report

2014 Operating Data

Prepared for:
**Performance Monitoring and External Relations
Committee**

Final

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Executive Summary

The Annual Route Report is published annually to inform Spokane Transit staff, the public, and Board of Directors of the performance of each route compared to three performance standards: Ridership, Equivalent Energy Consumption, and Fares. Customers expect Spokane Transit to provide reliable and convenient service in a courteous, cost-effective manner. For Spokane Transit to ensure the reliability, consistency, and proper development of its transit services, it must continually evaluate and understand the strengths and weaknesses of the products offered.

This year marks the 6th Annual Route Report and reflects Spokane Transit's ongoing commitment to monitor its performance to ensure the effectiveness and efficiency of Spokane Transit's 34 transit routes and to promote overall system improvement through careful measurement of established performance benchmarks and standards listed in this report.

The report is organized into three sections. Section I contains 2014 route performance results, analysis of consecutive years (2014/2013) and identifies which routes fall below the minimum standards for those years. Section II contains route indicators including route length, seated capacity, revenue hours, revenue miles, unallocated cost, average passenger trip length, passenger boardings, passenger miles, and annual fare revenue. Section III contains information related to the Universal Transit Access Pass (UTAP) program. The UTAP program enables members of an organization access to fixed-route transit service through a contract with STA. Service is paid for based on the actual fare pass usage of its members. Finally, the Appendix contains tables that summarize productivity and interesting charts summarizing the performance results of each section of the report.

The year 2014 represents the region's highest ridership year since 1953. Spokane Transit ridership increased 2.5% over 2013. Overall, 20 routes evaluated met all three performance standards, eight routes were unable to meet one of the three performance standards, five routes were unable to meet two standards, and one route did not meet any of the three standards. The most common performance standards not met were Ridership and Equivalent Energy Consumption. The energy standard will continue to be a challenge for some routes to meet as the personal automobile fleet traveling the nation's roadways continues to become more energy efficient.

Any route that falls below the minimum standard for any one of the three performance standards for two consecutive years will be considered out of compliance. These routes are placed on an out of compliance list followed by a remediation plan that states possible solutions in order to improve performance. The remediation plan may correspond with the

Service Implementation Plan (now Section 5 of the current Transit Development Plan) where feasible while some routes will continue to be monitored even though they are out of compliance.

Section I: Route Performance

Route Performance Overview

In December 2009, the Spokane Transit Board of Directors adopted the **Fixed-Route Service Design Guidelines** to guide the planning, implementation, and monitoring of fixed-route transit service in order to steer Spokane Transit staff through the 2010/2011 service reductions. These guidelines and standards were ultimately merged into the Fixed Route element and Annex I Fixed-Route Performance Standards contained in **Connect Spokane: A Comprehensive Plan for Public Transportation** adopted by the Board of Directors in July of 2010.

An essential part of the required performance monitoring is to evaluate operating data for the prior year of service. This section uses operating data from 2014. As a snapshot of the system and individual routes, this report is an essential tool for evaluating and planning for improvements in transit service.

Routes are rated annually against three performance standards: Ridership, Comparable Energy Consumption, and Fares. Each of these standards has a benchmark score which is calculated annually. A route which meets a performance standard's benchmark in either or both of the previous two years is considered to meet that performance standard. (In other words, a single year of substandard performance is not considered a failure in this report.)

The Appendix shows a table comparing 2014 with 2013 and summarizes whether each route passed or was unable to meet a particular benchmark. Furthermore, it is noted under the Consecutive Years Analysis section whether a route did not meet a performance measure for consecutive years.

Route Performance Standards

As stated in **Connect Spokane**, any route that falls below the minimum standard for any one of the three performance standards for two consecutive years will be considered out of compliance. The Consecutive Year Analysis section contains a list of routes out of compliance. New service will be evaluated following its development period, typically 18 to 24 months. A partial year of operation (e.g. if a route begins operating in September) will not be counted against a route's compliance with these standards.

The performance standards measure the success of the fixed-route service based upon the three performance standards. Routes are compared against annual benchmark scores set for

routes similar in service type and/or vehicle types. The service types¹ and performance standards used are explained below.

Performance Standard I: Ridership

Ridership is a critical metric for evaluating the system's effectiveness to serve people and the places to which they travel. Spokane Transit may desire to serve a particular facility, location, or community, but the route may still fail to attract ridership. In such cases, it is important to identify why the route is not performing well and what steps can be taken to remediate the route. See Consecutive Year Analysis section for a remediation plan for routes out of compliance.

As stated in the **Connect Spokane**, one of the best indicators of potential performance is a route's relation to the CBD (Central Business District). A route which serves the CBD has more connectivity than other routes. Consequently, it must meet a higher expectation due to the downtown Plaza's finite number of bus bays and overall capacity. Accordingly, use of the Plaza's capacity should be focused on routes with a higher level of effectiveness in terms of ridership.

The metric used for ridership is Boardings per Revenue Hour. Revenue hours represent the hours the bus is in service. Boardings per Revenue Hour are calculated by dividing the annual boardings of a route by the annual revenue hours of that same route.

Ridership benchmarks are based upon the average Boardings per Revenue Hour for all basic routes that intersect the CBD.

Ridership benchmarks for specific service types are calculated as follows:

- Basic routes intersecting the CBD must meet a minimum ridership benchmark that is one-half standard deviation below the average of the basic CBD routes. In 2014 that average was 29.99 Boardings per Revenue Hour. This equates to a benchmark of 26.22 Boardings per Revenue Hour in 2014. It should be noted that this benchmark was up slightly compared to 2013 (25.50).
- Basic routes NOT intersecting the CBD must meet a minimum ridership benchmark one-half that for basic routes that do intersect the CBD. This equates to a benchmark of 13.11 Boardings per Revenue Hour in 2014.
- Commuter Peak routes must meet a minimum ridership benchmark one-half standard deviation above the average of the basic routes. This equates to a benchmark of 33.76 Boardings per Revenue Hour in 2014. For routes that operate as a function of what would otherwise be out-of-service time on a route ("Commuter Peak – Subordinate") the standard is equal to one-third the Commuter Peak benchmark. For 2014, this

¹ Connect Spokane defines the High Performance Transit Network (HTPN). Currently, Spokane Transit has no HTPN service so HTPN performance standards are omitted from this report.

equates to a benchmark of 11.25 Boardings per Revenue Hour. It should be noted that Route 165 is the only route classified as Commuter Peak – Subordinate.

Performance Standard 2: Equivalent Energy Consumption

There is great potential in the use of mass transit over the personal automobile to conserve energy and lessen human impact on the environment. Typically, energy consumption is shown by the number of single-occupancy vehicle (SOV) trips reduced by the use of mass transit, but this measure does not take into account that a transit bus is much heavier than a personal vehicle and consumes more energy per vehicle mile.

The Equivalent Energy Consumption standard relates to the duration of a passenger’s ride time on a vehicle. As stated in **Connect Spokane**, a bus route should at minimum perform equally to the private automobile in terms of energy consumed per mile traveled for each passenger. The private automobile is improving in efficiency each year. As a result, the Energy benchmark has increased three straight years. The energy consumption for each passenger mile of a route will vary by the typical vehicle size used for each route. Below is a table that shows typical vehicle types assigned to Spokane Transit for Basic and Commuter Routes and their required minimum average load factor. Basic Routes must meet an average load factor that results in the route being as energy efficient as a typical single occupancy vehicle (SOV). The benchmark for Commuter Routes is higher than that for Basic Routes and must be as energy efficient as the average-loaded private automobile.

Table 1.1 - Minimum Average Load Factor Benchmark Scores

Average Load Factor Benchmarks		
	Basic Routes	Commuter Peak Routes
Vehicle Type	2014	2014
30’ Bus	6.20	9.61
35’ Bus	4.88	7.56
40’ Bus	4.94	7.66
60’ Bus	6.88	10.66

The average passenger load (load factor) of a route is calculated by dividing the annual passenger miles of a route by the annual platform miles of a route. Passenger miles are the cumulative sum of the distances ridden by each passenger while platform miles represent all miles the vehicle travels, both in- and out-of-service.

Performance Standard 3: Fares

Spokane Transit collects fares in the form of cash, passes and institutional pass programs which Spokane Transit administers. Farebox recovery represents the revenue collected along a route

as a percentage of the total cost of operating the route. Fares per passenger are not the same for every route. Two routes with the same ridership could have very different farebox recovery ratios based on fare media and operating costs.

The Fares performance standard uses a route's farebox recovery ratio to show the relationship between fares collected versus the operating cost of a route. Farebox recovery ratio is calculated by dividing the annual fare revenue by the annual unallocated cost (the cost of the route and associated support). The benchmark which must be met or exceeded is equal to one-half the system-wide average (for revenue allocated to routes) farebox recovery ratio. The 2014 system average was 22.19%, creating a benchmark of 11.10%. The system average fare calculated for this measure does not incorporate fare revenue which cannot be confidently allocated to any route. In 2014, additional revenue hours were required in order to improve reliability on several routes throughout the network. This trend will continue in the coming years as additional revenue hours will be incrementally invested in order to maintain effective service delivery.

Summary of 2014 Route Performance

The following section outlines the performance of all routes subject to performance monitoring for 2014. A route will be considered to have been unable to meet a performance standard if it is not in compliance for two consecutive years. Please refer to the Appendix for a detailed breakdown of each of the three performance standards for all routes and for a table comparing 2014 with 2013 that summarizes whether each route passed or was unable to meet a particular benchmark for each year. Further detailed analysis is contained in the coming section titled Consecutive Year Analysis. This includes a watch list of routes that may require corrective action in the future. It should be noted that it will be difficult for some routes to meet the Equivalent Energy Consumption Standard due to the short route length thereby producing very low average trip lengths which produces lower annual passenger miles. Passengers can only travel limited distances on these routes. For example, the outbound distance for Route 1 is only 1.34 miles. Because the typical vehicle size on the route is a 30 foot bus, the benchmark is higher at 6.20. Furthermore, some routes have excess revenue hours because they take on more recovery/layover time for partner routes within the interline causing the partner routes to perform better. It is important to take this into deliberate consideration when proposing potential service changes that would improve performance.

Fixed-Routes Unable to Meet All Three Standards

Route 34 was the lone route unable to meet all three standards in 2014; however, it did not operate for the entire year in 2013. Therefore another full year of operation is required in order

to have two consecutive years of comparison. A partial year of operation (e.g. if a route begins operation in September) will not be counted against a route’s compliance with the performance standards. It should be noted that the route operates with 15 minute weekday frequency but under performed with 12.81 Boardings Per Revenue Hour (BPRH) in 2014. Other frequent 15 minute routes perform in the 30 to 40 range (Route 20 – 41.74 BPRH; Route 24 – 43.06 BPRH; Route 25 – 36.61 BPRH; Route 33 – 36.01 BPRH; Route 44 – 33.98 BPRH).

Fixed-Routes Unable to Meet Two of Three Standards

Table 1.2 depicts the five routes unable to meet two of the three performance standards for 2014. Route 60 has shown five consecutive years of improvement with the energy standard and showed improvement with the Ridership standard (21.73 Boardings per Revenue Hour compared to 18.56 in 2013). The route experienced a 14.3% increase in boardings compared to 2013. Route 2 has been unable to meet two of three standards (Ridership, Energy) for five consecutive years but has shown minor improvements each year. Routes 96 and 124 are new to this list in 2014. Route 96 did not meet the Fare standard in 2014. Route 124 did not meet the Energy standard in 2014 despite meeting it in 2013. The Energy benchmark for Commuter routes jumped from 7.34 to 7.66. Both routes are already on the Remediation Plan list under Table 1.6.

Table 1.2 Fixed-Routes Unable to Meet Two of Three Standards

Route	Route Name	Type	Performance Standards Not Met
1	Plaza/Arena	Basic	Ridership, Energy
2	Southside/Medical Shuttle	Basic	Ridership, Energy
60	Airport via Browne’s Addition	Basic	Ridership, Energy
96	Pines/Sullivan	Basic	Energy, Fares
124	North Express	Commuter Peak	Ridership, Energy

Fixed-Routes Unable to Meet One of Three Standards

Eight routes were unable to meet one of the three required performance standards in 2014 (down from 16 in 2013). These routes illustrate that a route’s design does not always meet all performance standards. It is imperative to ensure continued monitoring of these routes so that steps can be taken, where possible, to improve their performance. Two routes (96 and 124) were unable to meet two of three standards and were removed from the list below; however, six routes now meet all three standards for 2014, an outstanding network improvement. Routes 23 and 173 had major increases in boardings compared to 2013 (+66,948/+22.8% and +23,142/+19.5%).

Table 1.3 Fixed-Routes Unable to Meet One of Three Standards

Route	Route Name	Type	Performance Standard Not Met
22	Northwest Blvd	Basic	Ridership
23	Maple/Ash	Basic	Energy
62	Medical Lake	Basic	Ridership
68	Cheney Local	Basic	Energy
94	East Fifth/Millwood	Basic	Ridership
98	Liberty Lake Via Sprague	Basic	Energy
173	VTC Express	Commuter Peak	Ridership
174	Liberty Lake Express	Commuter Peak	Ridership

Fixed-Routes Meeting All Three Standards

Table 1.4 indicates routes that met STA’s standards for Ridership, Equivalent Energy Consumption, and Fares for 2014. Six routes showed considerable improvement in 2014. Routes 26, 28, 33, 42, 43, and 97 met all three standards compared to 2013.

Routes 29 and 42 had notable increases in boardings compared to 2013 (+34,235/+11.8% and +15,384/+10.2%). Route 45 recorded over 443,000 boardings in 2014 representing an increase of 7.6% over 2013. Route 25 also experienced growth with an increase of 33,280 boardings in 2014 over 2013 (+3.1%).

Although a route may meet all three standards, the route may still be a candidate for future revisions as the future High Performance Transit Network begins to take shape.

Table 1.4 Fixed-Routes Meeting All Three Standards

Route	Route Name	Type
20	SFCC	Basic
21	West Broadway	Basic
24	Monroe	Basic
25	Division	Basic
26	Lidgerwood	Basic
27	Hillyard	Basic
28	Nevada	Basic
29	SCC	Basic
32	Trent/Montgomery	Basic
33	Wellesley	Basic

Route	Route Name	Type
39	Mission	Basic
42	South Adams	Basic
43	Lincoln/37 th Ave	Basic
44	29 th Avenue	Basic
45	Regal	Basic
61	Hwy 2 via Browne's Addition	Basic
66	Cheney/EWU	Basic
90	Sprague	Basic
97	South Valley	Basic
165	Cheney Express	Commuter Peak

Consecutive Year Analysis

Standards imply accountability, comparison, and remediation in the event of non-compliance. As stated earlier, any route that falls below the minimum standard for any one of the three performance standards for two consecutive years will be considered out of compliance. A partial year of operation (e.g. if a route begins operating in September) will not be counted against a route's compliance with these standards. This applies to Route 34 which began service in September 2013; however, it was still included on the list below because it did not meet all three standards in 2014 despite operating with 15 minute weekday frequency.

Out of Compliance List

Table 1.5 shows the current watch list of routes out of compliance for two consecutive years. The "X" indicates what standard the route was unable to meet for consecutive years. It should be noted that Routes 42, 43, and 97 all met the Energy benchmark in 2014 and were taken off the list. Route 28 met the Ridership benchmark and was also taken off the list. The list in last year's report contained 16 routes compared to 14 routes this year.

Table 1.5 Out of Compliance (watch list)

Route	2013 Standard Not Met			2014 Standard Not Met		
	Ridership	Energy	Fares	Ridership	Energy	Fares
1	X	X		X	X	
2	X	X		X	X	
22	X			X		
23		X			X	
34	X	X	X	X	X	X
60	X	X		X	X	

Route	2013 Standard Not Met			2014 Standard Not Met		
	Ridership	Energy	Fares	Ridership	Energy	Fares
62	X			X		
68		X			X	
94	X			X		
96		X			X	
98		X			X	
124	X			X		
173	X			X		
174	X			X		

Remediation Plan

Table 1.6 indicates the plan of remediation related to each of the routes that did not meet one or more standard for consecutive years. As stated earlier, Routes 42, 43, and 97 all met the Energy benchmark in 2014 and were taken off the list. Route 28 met the ridership benchmark and was also taken off the list.

Table 1.6 Remediation Plan

Route	Remediation Plan
1	Continue to monitor and work with Downtown Spokane Partnership, the third party in the contract with STA and the Public Facilities District, to re-invigorate marketing to downtown businesses that benefit from this service. The proposed new night trip in September 2015 that would serve Travelers Insurance employees could help improve ridership without significantly increasing costs. Consider modifying energy benchmark to include hybrid vehicles.
2	Continue to monitor. The route showed improvement in all three performance benchmarks. Solution may require extending the route to the pedestrian bridge that is planned to connect to the South University District. This likely cannot be addressed until the September 2017 service change when the bridge project is estimated to be completed. Consider modifying energy benchmark to include hybrid vehicles.
22	Continue to monitor. The route was lengthened to cover some of the old segment of Route 30 on Francis Ave east to Maple St in 2011.
23	Continue to monitor. Increased frequency during the weekday mid-day period in 2013 boosted ridership and continues to improve performance. The route improved from 4.14 to 4.92, narrowly missing the Energy benchmark of 4.94. Boardings Per Revenue Hour has soared from 25.60 in 2013 to 33.41 in 2014. Future plans to extend to Indian Trail end of line on all trips (weekdays and weekends) would likely yield longer passenger trips thereby improving the performance for the Energy standard. However, the change likely would not

Route	Remediation Plan
	take place until the September 2017 service change (pending additional funding and public outreach).
34	Continue to monitor. The route did not meet all three performance benchmarks despite operating with 15 minute weekday frequency. It should be noted that the route did not operate for an entire year in 2013. Therefore, the comparison between 2014 and 2015 will be more enlightening. This route operates along the former Route 33 segment between Spokane Community College and South Hill Park & Ride. Separating this segment from Route 33 will allow frequency to be adjusted in the future based on demand.
60	Continue to monitor. Overall the route continues to improve. The route serves the airport (a major regional destination) and likely would perform worse if it did not travel through Browne’s Addition. Boardings per Revenue Hour improved from 18.56 in 2013 to 21.73 in 2014. Energy performance results have improved five straight years (2.71 in 2010; 2.82 in 2011; 3.03 in 2012; 3.32 in 2013; 4.04 in 2014).
62	Continue to monitor. Current service was approved with the September 2011 service change. As stated in Board Resolution No. 675-11, “the Route 62 final recommendation is an exception to the Board’s Comprehensive Plan policy to provide Basic Interurban service at a minimum frequency on weekdays (FR Policy 4.0) and will not likely adhere to approved performance standards.” The route does meet the Energy and Fares benchmarks. Given the current route structure, adding more service (revenue hours) would reduce the route’s performance compared to the standards, with the likelihood of unsuccessfully meeting all three standards. The construction of the West Plains Transit Center located at Exit 272 of I-90 (currently funded for design only) would address this issue by creating a new route that would serve Medical Lake with a Basic Interurban route that has lower productivity standards because the route would not travel to the CBD.
68	Continue to monitor. Boardings per Revenue Hour improved to 19.42 (up from 18.93 in 2013). Energy standard will be difficult to meet due to the short route length thereby producing very low average trip lengths which produces lower annual passenger miles. Passengers can only travel limited distances on this route.
94	Continue to monitor. Revenue hours were added in late 2013 in order to improve reliability on weekdays. As a result, Boardings Per Revenue hour numbers continue to decline (22.95 in 2013; 20.85 in 2014).
96	Continue to monitor. Meets the Ridership standard, but did not meet the Fare standard for the first time in 2014. Energy performance improved slightly to 3.84 (up from 3.75 in 2013). The route was modified to serve Mirabeau Park & Ride for both directions in late 2013 and that change needs time to mature. In 2014, total annual boardings were up 5.9% compared to 2013.

Route	Remediation Plan
98	Continue to monitor. Performance numbers were down slightly in all three categories compared to 2013.
124	Continue to monitor. Boardings per Revenue Hour results have leveled off and showed a slight decrease in 2014. Future plans to interline the route with a new South Express route may result in ridership gains (pending additional funding).
173	Continue to monitor. Mid-day trips were added to the public schedule and interlining with select inbound Route 66 trips to outbound Route 173 trips has attracted more ridership thereby improving performance. Total 2014 boardings were up 19.5% compared to 2013.
174	Continue to monitor. Revenue hours were added in 2014 in order to improve PM peak reliability. As a result, Boardings Per Revenue hour numbers were down moderately (28.38 in 2013; 25.82 in 2014). However, total 2014 boardings were up 2.2% compared to 2013.

Section II: Route Indicators

The tables contained in Section II show various annual indicators related to 2014. These indicators include route length, seated capacity, revenue hours, revenue miles, unallocated cost, average passenger trip length, passenger boardings, passenger miles, and annual fare revenue by route.

Route Indicator Definitions

Indicator	Description
Route Length	One-way distance of the dominant outbound pattern during the weekday peak period. It should be noted that some routes have many different pattern to which the bus travels.
Seated Capacity	The number of seats provided on the coach size and type typically used on the route.
Revenue Hours	The number of hours buses travel during scheduled trips for a given route. This time does not include deadhead time.
Revenue Miles	The number of miles buses travel during scheduled trips for a given route. This does not include deadhead miles.
Unallocated Cost	Expenses associated with fixed-route operations only. This includes the benefits and wages of coach operators, maintenance, and supervisors. This also includes fuel costs. This is calculated by multiplying the route

Indicator	Description
	revenue hours by the unallocated cost per hour (obtained from Finance). For the year 2014, the unallocated cost per hour was \$100.39.
Average Passenger Trip Length	The average distance ridden for an unlinked passenger trip computed as passenger miles traveled divided by unlinked passenger trips.
Passenger Boardings	A single passenger getting on a transit vehicle.
Passenger Miles	The cumulative sum of the distances ridden by each passenger.
Fare Revenue	All income received directly from passengers, paid either in cash or through pre-paid tickets, passes, etc.

Table 2.1 Route Length, Seated Capacity, Revenue Hours, Revenue Miles, and Unallocated Costs

Route	Route Name	One Way Route Length	Typical Seated Capacity	Annual Revenue Hours	Annual Revenue Miles	Annual Unallocated Cost
1	Plaza/Arena	1.34	26	6,176	31,877	\$ 620,051.81
2	Southside Medical Shuttle	2.86	26	10,005	64,355	\$ 1,004,406.97
20	SFCC	3.98	39	8,894	131,566	\$ 892,870.67
21	West Broadway	3.04	39	8,608	63,814	\$ 864,205.31
22	Northwest Boulevard	8.39	39	12,492	153,189	\$ 1,254,028.71
23	Maple/Ash	9.19	39	8,796	127,696	\$ 882,988.28
24	Monroe	5.12	39	16,403	165,345	\$ 1,646,669.06
25	Division	9.15	39	29,426	346,071	\$ 2,954,049.03
26	Lidgerwood	9.27	39	12,380	152,214	\$ 1,242,861.33
27	Hillyard	10.22	39	17,068	208,178	\$ 1,713,418.37
28	Nevada	8.82	39	11,711	145,415	\$ 1,175,634.16
29	SCC	4.18	39	8,180	77,789	\$ 821,195.22
32	Trent/Montgomery	7.50	32	9,789	138,150	\$ 982,725.74
33	Wellesley	8.81	39	15,818	272,344	\$ 1,587,948.94
34	Freya	6.18	39	19,782	191,227	\$ 1,985,962.16
39	Mission	6.88	32	8,545	101,058	\$ 857,782.36
42	South Adams	2.08	32	4,627	33,515	\$ 464,522.60
43	Lincoln/37th Avenue	6.74	39	9,165	123,396	\$ 920,034.19
44	29th Avenue	4.07	39	10,372	136,810	\$ 1,041,285.24
45	Regal	6.84	39	14,103	160,859	\$ 1,415,825.27
60	Airport via Browne's Addition	7.38	32	8,811	135,536	\$ 884,548.34
61	Hwy 2 via Browne's Addition	13.38	39	14,690	283,533	\$ 1,474,680.91
62	Medical Lake	20.24	39	3,432	82,713	\$ 344,521.41
66	Cheney/EWU	16.90	62	20,567	534,504	\$ 2,064,753.25
68	Cheney Local	6.42	32	6,964	84,185	\$ 699,129.01
90	Sprague	7.93	39	23,392	302,399	\$ 2,348,302.80
94	East Fifth/Millwood	11.09	39	14,624	194,002	\$ 1,468,111.39
96	Pines/Sullivan	10.65	32	12,911	183,873	\$ 1,296,145.33
97	South Valley	9.51	32	10,654	171,562	\$ 1,069,516.91
98	Liberty Lake via Sprague	9.14	32	11,084	162,807	\$ 1,112,742.84
124	North Express	8.87	39	4,272	68,580	\$ 428,893.19
165	Cheney Express	20.74	62	2,932	63,018	\$ 294,345.49
173	VTC Express	10.01	39	4,175	85,644	\$ 419,100.14
174	Liberty Lake Express	18.54	39	9,750	254,427	\$ 978,832.62

Table 2.2 Average Passenger Trip Length, Passenger Boardings, Passenger Miles, and Fare Revenue

Route	Route Name	Average Passenger Trip Length	Annual Passenger Boardings	Annual Passenger Miles	Annual Fare Revenue
1	Plaza/Arena	0.94	127,902	127,835	\$ 99,670.86
2	Southside Medical Shuttle	1.42	210,704	317,124	\$ 141,373.78
20	SFCC	3.33	371,262	1,309,265	\$ 235,637.12
21	West Broadway	1.58	235,413	394,895	\$ 162,363.08
22	Northwest Boulevard	2.71	316,069	909,551	\$ 231,431.74
23	Maple/Ash	2.23	293,874	695,038	\$ 224,082.96
24	Monroe	1.92	706,344	1,435,466	\$ 518,771.69
25	Division	3.63	1,077,230	4,143,059	\$ 878,399.87
26	Lidgerwood	3.95	326,999	1,370,388	\$ 251,110.96
27	Hillyard	3.78	496,385	1,990,036	\$ 393,770.89
28	Nevada	3.42	318,552	1,156,337	\$ 266,523.16
29	SCC	2.74	289,229	839,271	\$ 187,890.27
32	Trent/Montgomery	4.40	223,695	1,044,265	\$ 149,166.91
33	Wellesley	2.90	569,615	1,754,280	\$ 409,351.12
34	Freya	2.35	253,356	631,775	\$ 158,691.37
39	Mission	2.61	273,417	756,938	\$ 191,527.30
42	South Adams	1.11	150,351	177,152	\$ 93,308.25
43	Lincoln/37th Avenue	2.54	248,723	670,390	\$ 189,385.82
44	29th Avenue	2.71	352,479	1,014,435	\$ 262,501.52
45	Regal	3.05	443,206	1,431,943	\$ 350,355.85
60	Airport via Browne's Addition	2.75	191,436	558,199	\$ 137,486.20
61	Hwy 2 via Browne's Addition	6.33	451,110	3,029,440	\$ 332,165.05
62	Medical Lake	12.66	48,880	655,903	\$ 51,347.93
66	Cheney/EWU	14.52	704,716	10,848,603	\$ 703,673.65
68	Cheney Local	2.25	135,231	323,194	\$ 87,202.94
90	Sprague	4.32	1,022,033	4,685,450	\$ 732,135.06
94	East Fifth/Millwood	4.16	304,863	1,344,126	\$ 229,440.41
96	Pines/Sullivan	3.65	197,223	764,184	\$ 141,248.49
97	South Valley	4.02	216,591	923,361	\$ 151,357.09
98	Liberty Lake via Sprague	3.12	214,951	710,450	\$ 160,753.56
124	North Express	6.00	98,139	624,631	\$ 116,417.68
165	Cheney Express	14.09	57,398	857,344	\$ 55,929.22
173	VTC Express	8.82	118,925	1,112,192	\$ 110,023.82
174	Liberty Lake Express	12.85	251,712	3,429,612	\$ 298,224.83

Section III: Universal Transit Access Pass (UTAP)

This section is intended to make available the going rates for services provided under the Universal Transit Access Pass (UTAP) Program effective July 1, 2015.

According to Spokane Transit's Tariff Policy, UTAP is an annual program made available on a contractual basis in which all members of an organization have unlimited access to STA services. The organization pays a fee that allows all identified members of their organization to use STA services for the contracted time period. Eligible participants must be identifiable by an identification card that is readable by STA fare collection equipment. The number of these programs is dependent on the capacity of STA's fare collection equipment.

The contract price is based on each unlinked trip taken by members of the program. The charge for each unlinked trip is calculated based on an established rate for each route in STA's system. A rate sheet for each route is published annually and included in the annual contract update.

The participating organization is billed monthly for the previous month's trips. However, in order to allow participating organizations to budget, contracts will also include a "not to exceed" total price for an annual contract. The "not to exceed" fee will be calculated by STA prior to each contract period. Actual monthly ridership may result in the cost of the contract to be lower than the "not to exceed" fee.

UTAP Rates Calculation

Overall, the UTAP direct utility rates are based on the direct expenses required to provide a typical unlinked passenger trip by each route, applying direct operating expenses to the seated capacity of buses in service. This cost per seat mile calculated for each route is applied to the average passenger trip length to arrive at the expenses directly utilized by a passenger. Additionally, a base rate is applied uniformly to all routes that takes into account the expenses incurred in directly administering fixed-route operations, including dispatching, road supervisors and scheduling. The base utility rate calculation for 2014 is shown below.

$$\text{Base Utility Rate (B)} = \frac{\text{Base Expenses}}{\text{Passengers}} = \frac{\$3,449,871}{11,324,434} = \frac{\$0.30}{\text{passenger}}$$

There are several steps and many variables that are used to generate each route's direct utility rate. The first step is to determine direct expenses for each route by applied uniform direct costs per revenue hour and revenue mile commensurate on actual revenue hours and revenue miles operated in a year. The common inputs for this variable are shown below using 2014

data. Route-specific revenue hours and revenue miles data for 2014 can be found in Section II of this report.

$$\text{Direct Cost per Revenue Hour (R)} = \frac{\text{Direct Operating Expenses}}{\text{Revenue Hours}} = \frac{\$27,198,446}{392,087} = \frac{\$69.37}{\text{revenue hour}}$$

$$\text{Direct Cost per Revenue Mile (M)} = \frac{\text{Direct Maintenance Expenses}}{\text{Revenue Miles}} = \frac{\$8,714,272}{5,446,828} = \frac{\$1.60}{\text{mile}}$$

$$\text{Direct Route Expenses (D}_n\text{)} = \text{R} \times \text{Route Revenue Hours} + \text{M} \times \text{Route Revenue Miles}$$

Next, route expenses are applied to the seat miles provided by each route based upon the total revenue miles traveled for each route multiplied by the seated capacity of the typical coach size and type used on a route. Route-specific seated capacity for 2014 can be found in Section II of this report.

$$\text{Route Seat Miles (S}_n\text{)} = \text{Route Revenue Miles} \times \text{Route Seated Capacity}$$

$$\text{Route Direct Cost per Seat Mile (C}_n\text{)} = \frac{\text{D}_n}{\text{S}_n}$$

Finally, the direct utility rate is determined by multiplying the direct cost per seat-mile by the average passenger trip length calculated for that route. Average passenger trip length by route for 2014 is found in Section II of this report.

$$\text{Route Direct Utility Rate (U}_n\text{)} = \text{C}_n \times \text{Route Average Passenger Trip Length}$$

The combination of direct utility rate (U_n) and base utility rate (B) are capped to not exceed the cost of an adult single ride fare of \$1.50. Based upon 2014, the direct utility rates for Route 62 Medical Lake and 174 Liberty Lake Express were capped at \$1.20 in accordance with this methodology. It should be noted that Paratransit trips taken in the UTAP program are charged the full rate of \$1.50.

UTAP Rates Schedule

Based on the preceding variables and data for calendar year 2014, the UTAP direct utility rates effective July 1, 2015 are published below.

Table 3.1 Direct Utility Rate - Effective July 1, 2015

Route	Route Name	Direct Utility Rate (per Boarding)
1	Plaza/Arena Shuttle	\$ 0.54
2	Southside Medical Shuttle	\$ 0.68
20	SFCC	\$ 0.54
21	West Broadway	\$ 0.44
22	Northwest Boulevard	\$ 0.50
23	Maple/Ash	\$ 0.36
24	Monroe	\$ 0.42
25	Division	\$ 0.70
26	Lidgerwood	\$ 0.73
27	Hillyard	\$ 0.71
28	Nevada	\$ 0.63
29	SCC	\$ 0.62
32	Trent/Montgomery	\$ 0.90
33	Wellesley	\$ 0.42
34	Freya	\$ 0.53
39	Mission	\$ 0.61
42	South Adams	\$ 0.39
43	Lincoln/37th	\$ 0.44
44	29th Ave	\$ 0.48
45	Regal	\$ 0.60
60	Airport via Browne's Addition	\$ 0.53
61	Airway Heights via Browne's Addition	\$ 0.84
62	Medical Lake	\$ 1.20
66	Cheney/EWU	\$ 1.00
68	Cheney Local	\$ 0.52
90	Sprague	\$ 0.77
94	East Central/Millwood	\$ 0.73
96	Pines/Sullivan	\$ 0.74
97	South Valley	\$ 0.74
98	Liberty Lake via Sprague	\$ 0.62
124	North Express	\$ 0.91
165	Cheney Express	\$ 1.10
173	VTC Express	\$ 1.13
174	Liberty Lake Express via Mirabeau	\$ 1.20
X	New or Special Event Route	\$ 0.68
B	Base Utility Rate	\$ 0.30
P	Paratransit Utility Rate	\$ 1.50

Appendix

Section I

2014 Route Performance Results

Route	Route Name	Ridership		Energy		Fares	
		Benchmark	Actual	Benchmark	Actual	Benchmark	Actual
1	Plaza/Arena	26.22	20.71	6.20	3.76	11.10%	16.07%
2	Southside Medical Shuttle	26.22	21.06	6.20	4.82	11.10%	14.08%
20	SFCC	26.22	41.74	4.94	9.80	11.10%	26.39%
21	West Broadway	26.22	27.35	4.94	6.05	11.10%	18.79%
22	Northwest Boulevard	26.22	25.30	4.94	5.69	11.10%	18.46%
23	Maple/Ash	26.22	33.41	4.94	4.92	11.10%	25.38%
24	Monroe	26.22	43.06	4.94	8.20	11.10%	31.50%
25	Division	26.22	36.61	4.94	10.98	11.10%	29.74%
26	Lidgerwood	26.22	26.41	4.94	8.45	11.10%	20.20%
27	Hillyard	26.22	29.08	4.94	9.11	11.10%	22.98%
28	Nevada	26.22	27.20	4.94	7.45	11.10%	22.67%
29	SCC	26.22	35.36	4.94	10.20	11.10%	22.88%
32	Trent/Montgomery	13.11	22.85	4.88	7.02	11.10%	15.18%
33	Wellesley	13.11	36.01	4.94	6.17	11.10%	25.78%
34	Freya	13.11	12.81	4.94	3.10	11.10%	7.99%
39	Mission	26.22	32.00	4.88	7.14	11.10%	22.33%
42	South Adams	26.22	32.49	4.88	5.22	11.10%	20.09%
43	Lincoln/37th Avenue	26.22	27.14	4.94	5.16	11.10%	20.58%
44	29th Avenue	26.22	33.98	4.94	7.38	11.10%	25.21%
45	Regal	26.22	31.43	4.94	8.15	11.10%	24.75%
60	Airport via Browne's Addition	26.22	21.73	4.88	4.04	11.10%	15.54%
61	Hwy 2 via Browne's Addition	26.22	30.71	4.94	10.03	11.10%	22.52%
62	Medical Lake	26.22	14.24	4.94	7.82	11.10%	14.90%
66	Cheney/EWU	26.22	34.26	6.88	17.79	11.10%	34.08%
68	Cheney Local	13.11	19.42	4.88	2.99	11.10%	12.47%
90	Sprague	26.22	43.69	4.94	14.85	11.10%	31.18%
94	East Fifth/Millwood	26.22	20.85	4.94	6.30	11.10%	15.63%
96	Pines/Sullivan	13.11	15.28	4.88	3.84	11.10%	10.90%
97	South Valley	13.11	20.33	4.88	5.12	11.10%	14.15%
98	Liberty Lake via Sprague	13.11	19.39	4.88	3.63	11.10%	14.45%
124	North Express	33.76	22.97	7.66	7.44	11.10%	27.14%
165	Cheney Express	11.25	19.58	10.66	12.70	11.10%	19.00%
173	VTC Express	33.76	28.49	7.66	11.36	11.10%	26.25%
174	Liberty Lake Express	33.76	25.82	7.66	11.03	11.10%	30.47%

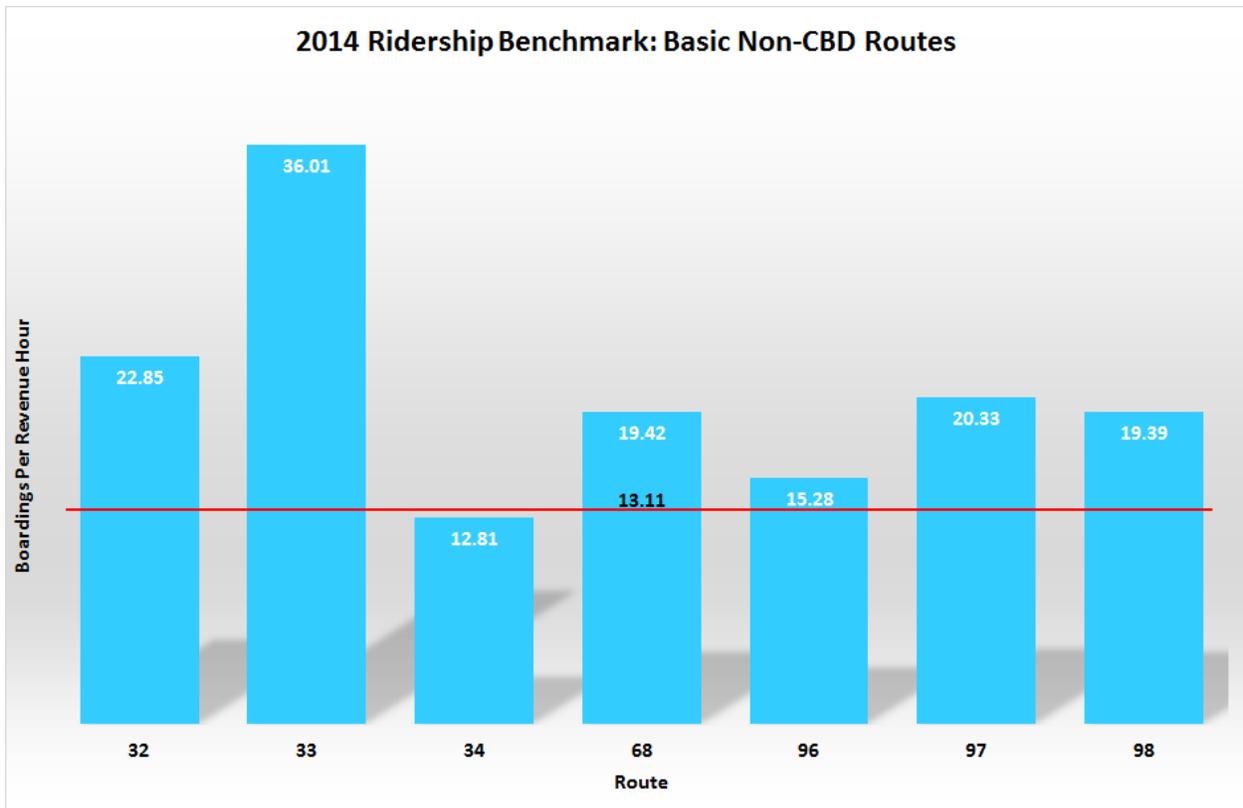
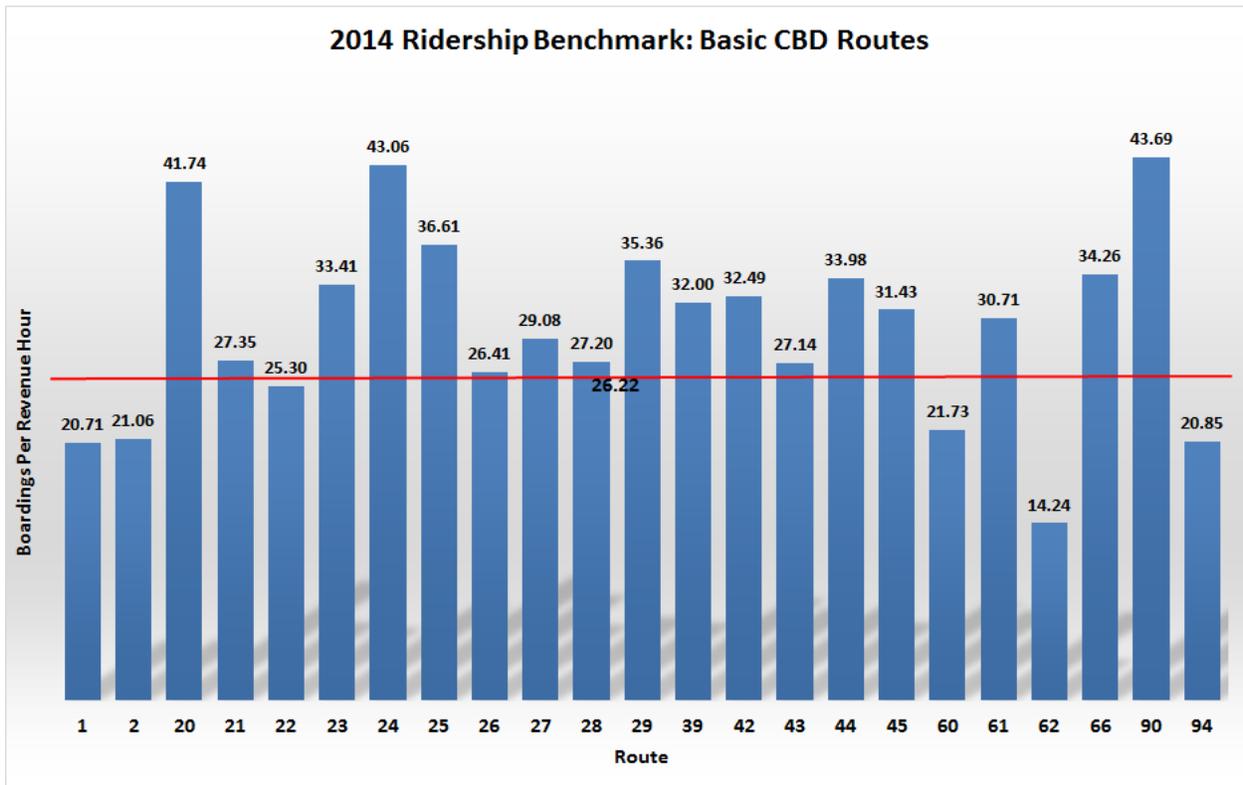
Did not meet benchmark

2014/2013 Route Performance Results Comparison

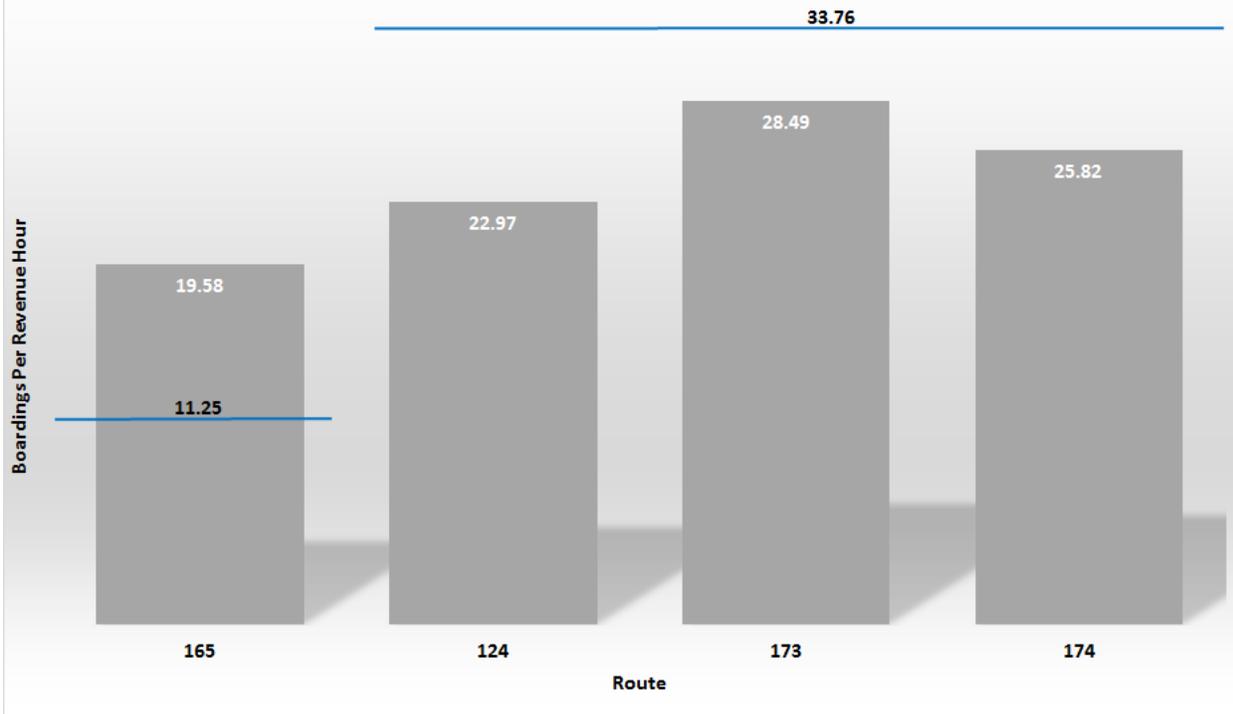
Route	Route Name	Riderhip Benchmark		Energy Benchmark		Fares Benchmark	
		2014	2013	2014	2013	2014	2013
1	Plaza/Arena	NOT MET	NOT MET	NOT MET	NOT MET	PASS	PASS
2	Southside Medical Shuttle	NOT MET	NOT MET	NOT MET	NOT MET	PASS	PASS
20	SFCC	PASS	PASS	PASS	PASS	PASS	PASS
21	West Broadway	PASS	PASS	PASS	PASS	PASS	PASS
22	Northwest Boulevard	NOT MET	NOT MET	PASS	PASS	PASS	PASS
23	Maple/Ash	PASS	PASS	NOT MET	NOT MET	PASS	PASS
24	Monroe	PASS	PASS	PASS	PASS	PASS	PASS
25	Division	PASS	PASS	PASS	PASS	PASS	PASS
26	Lidgerwood	PASS	NOT MET	PASS	PASS	PASS	PASS
27	Hillyard	PASS	PASS	PASS	PASS	PASS	PASS
28	Nevada	PASS	NOT MET	PASS	PASS	PASS	PASS
29	SCC	PASS	PASS	PASS	PASS	PASS	PASS
32	Trent/Montgomery	PASS	PASS	PASS	PASS	PASS	PASS
33	Wellesley	PASS	PASS	PASS	NOT MET	PASS	PASS
*34	Freya	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET	NOT MET
39	Mission	PASS	PASS	PASS	PASS	PASS	PASS
42	South Adams	PASS	PASS	PASS	NOT MET	PASS	PASS
43	Lincoln/37th Avenue	PASS	PASS	PASS	NOT MET	PASS	PASS
44	29th Avenue	PASS	PASS	PASS	PASS	PASS	PASS
45	Regal	PASS	PASS	PASS	PASS	PASS	PASS
60	Airport via Browne's Addition	NOT MET	NOT MET	NOT MET	NOT MET	PASS	PASS
61	Hwy 2 via Browne's Addition	PASS	PASS	PASS	PASS	PASS	PASS
62	Medical Lake	NOT MET	NOT MET	PASS	PASS	PASS	PASS
66	Cheney/EWU	PASS	PASS	PASS	PASS	PASS	PASS
68	Cheney Local	PASS	PASS	NOT MET	NOT MET	PASS	PASS
90	Sprague	PASS	PASS	PASS	PASS	PASS	PASS
94	East Fifth/Millwood	NOT MET	NOT MET	PASS	PASS	PASS	PASS
96	Pines/Sullivan	PASS	PASS	NOT MET	NOT MET	NOT MET	PASS
97	South Valley	PASS	PASS	PASS	NOT MET	PASS	PASS
98	Liberty Lake via Sprague	PASS	PASS	NOT MET	NOT MET	PASS	PASS
124	North Express	NOT MET	NOT MET	NOT MET	PASS	PASS	PASS
165	Cheney Express	PASS	PASS	PASS	PASS	PASS	PASS
173	VTC Express	NOT MET	NOT MET	PASS	PASS	PASS	PASS
174	Liberty Lake Express	NOT MET	NOT MET	PASS	PASS	PASS	PASS

*Route did not operate for the entire year in 2013

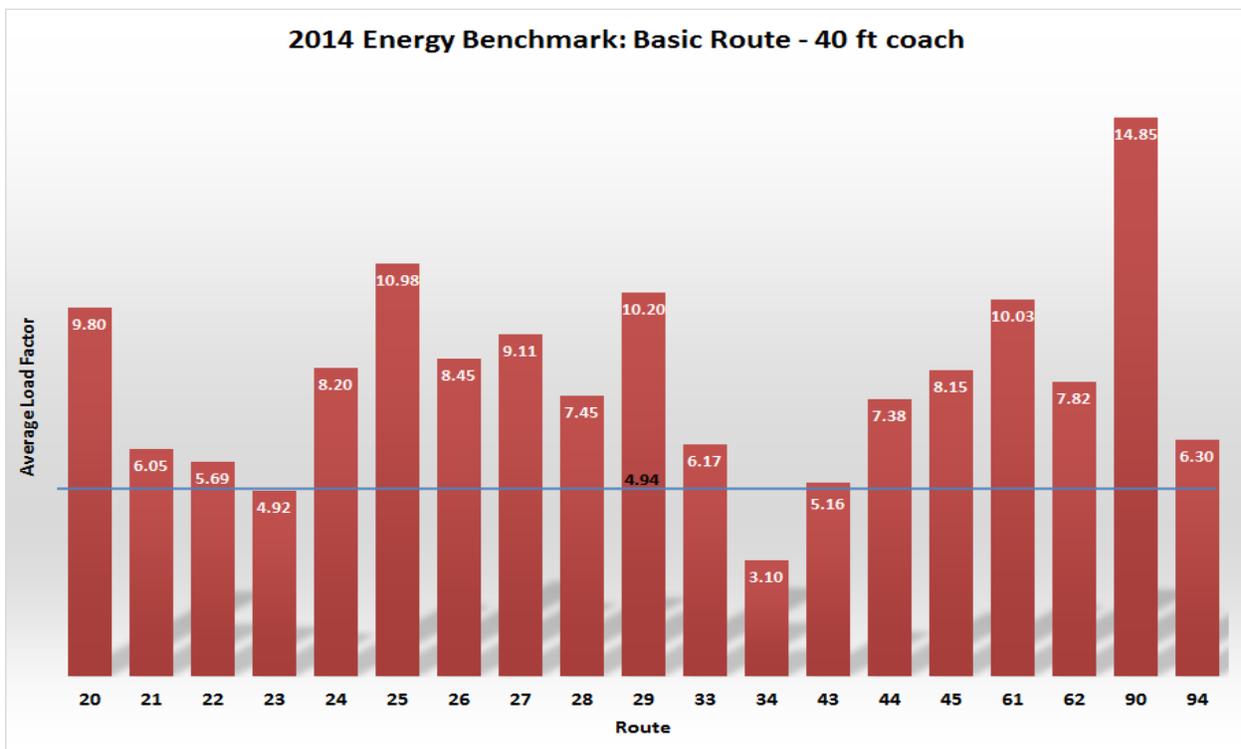
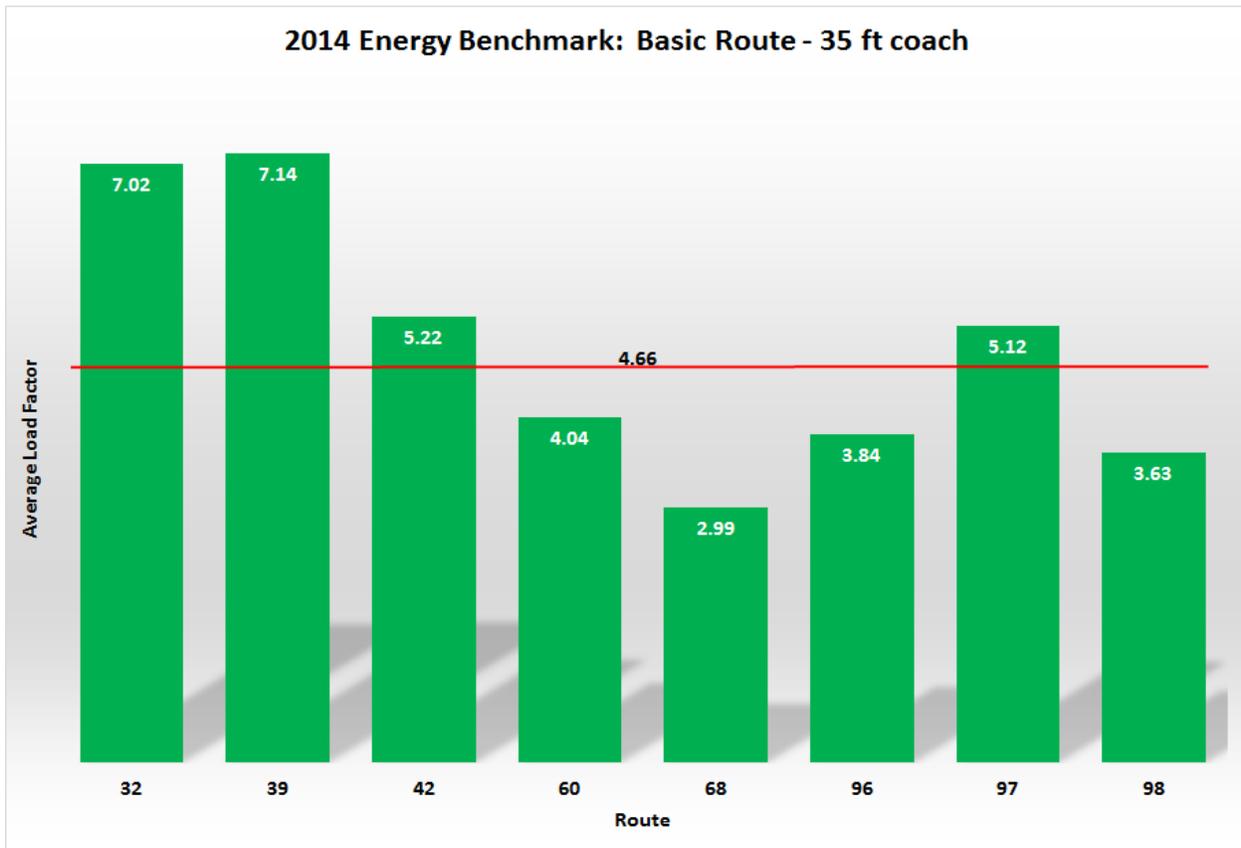
2014 Ridership Benchmark Charts



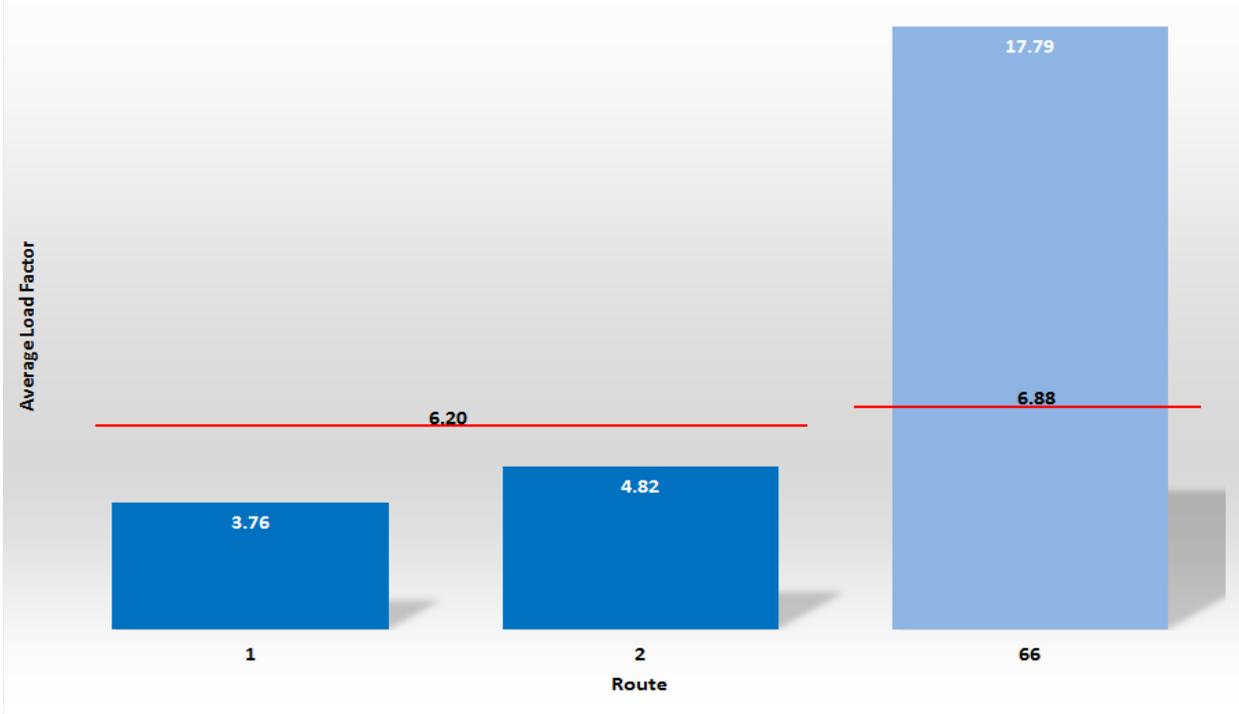
2014 Ridership Benchmark: Commuter Peak CBD Routes



2014 Energy Benchmark Charts



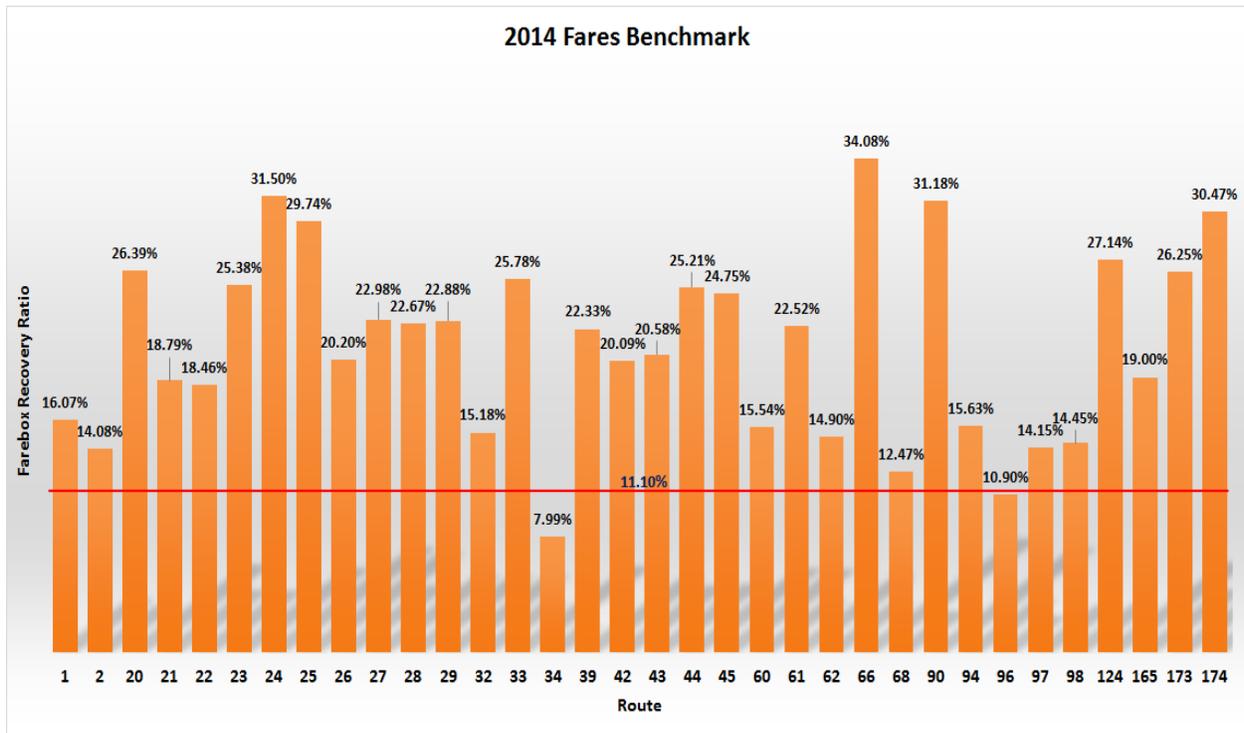
2014 Energy Benchmark: Basic Route - 30 ft coach and 60 ft coach



2014 Energy Benchmark: Commuter Route - 40 ft coach and 60 ft coach



2014 Fares Benchmark Chart



Section II

2014 Average Weekday Boardings

