

Title VI Fare Equity Analysis

2018 Fare Simplification for Sound Transit Express Bus Service

Introduction

In 2016, board members and council representatives of the seven ORCA agencies in the central Puget Sound region came together in a third Regional Fare Forum for the purpose of providing the next generation ORCA program with guidance on the regional fare structure to be included in the new system design.

The mission of the 2016 Forum was to:

- Reaffirm a commitment to regional fare coordination
- Provide guiding principles for the next generation ORCA system's fare structure design
- Discuss strategies to further integrate and simplify fares for seamless regional travel.

The 2016 Fare Forum recommended that the ORCA agencies simplify fares by, in part, by eliminating zone-based fare structures for bus service.

Currently, Sound Transit's Regional Express service has a two-zone fare structure, shown in the table below. Each county represents a separate zone, with the zone boundary at the county lines between King and Pierce Counties, and King and Snohomish Counties, as shown in Figure 1. Riders making trips within one-county pay a one-zone or one-county fare. Riders making trips between two-counties pay a two-zone or two-county fare.

Table 1: Current ST Express bus fares

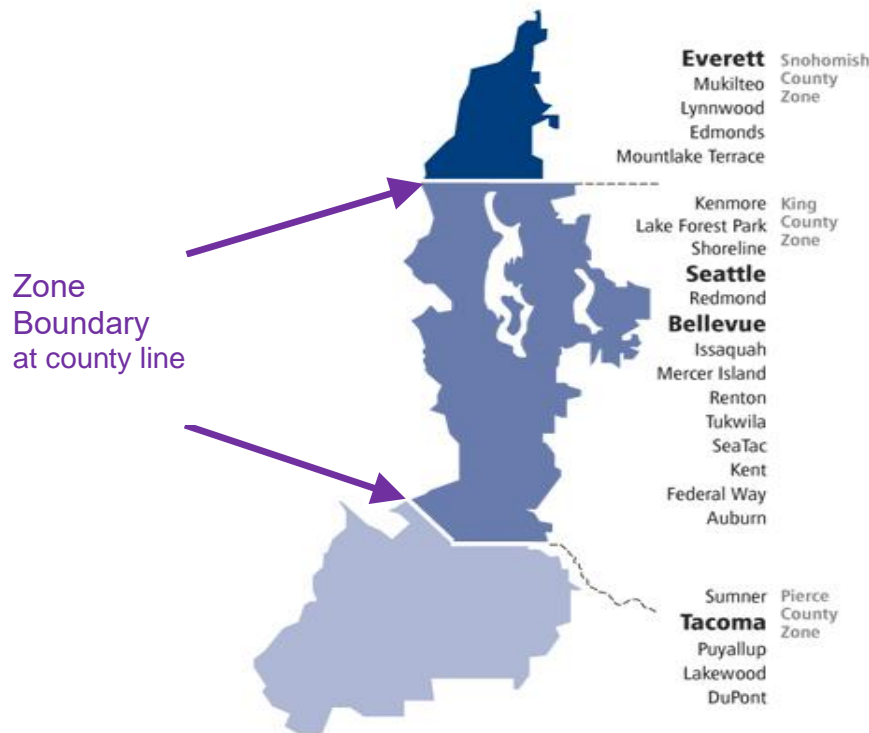
Customer Category	One-county (1-zone) fare	Two-county (2-zone) fare
Adult (age 19-64):	\$2.75	\$3.75
Low-Income Adult*	\$1.50	\$2.75
Youth (age 6-18):	\$1.50	\$2.75
Senior/Disabled** (age 65+ or qualifying disability):	\$1.00	\$1.75

Children age five and younger ride free with a fare-paying passenger.

* Requires ORCA LIFT card.

** Requires Regional Reduced Fare Permit

Figure 1: ST Express Zone Boundaries



Fare Options

Sound Transit is considering two options for simplifying the ST Express fare structure:

Option 1: \$3.25 Adult Flat Fare - A flat fare structure that would establish the following fares by customer category:

Adult	\$3.25
ORCA LIFT (Low-Income)	\$1.50
Youth	\$1.50
Seniors and Riders with Disabilities (RRFP)	\$1.00

This option would eliminate the zone fare structure for all customer categories, and establish flat fares for ORCA LIFT, Youth and RRFP riders at the current one-zone level.

Option 2: One-county and Two-county Route-based Adult Fare – Would establish a route-based fare structure for full-fare Adult riders, based on whether a route is a one-county or a two-county route.

Adult Trips on One-County Routes	\$2.75
Adult Trips on Two-County Routes	\$3.75

ORCA LIFT (Low-Income)	\$1.50
Youth	\$1.50
Seniors and Riders with Disabilities (RRFP)	\$1.00

For full-fare Adult riders, this option would maintain the current one-zone fare on one-county routes, and establish the current two-zone fare for all Adult riders on two-county routes. This option would not allow Adult riders making trips within one county on two-county routes to ask the driver to “override” the fare setting to enable them to pay the lower, one-county fare. This option would also establish flat fares for ORCA LIFT, Youth and RRFP riders at the current one-zone level.

Fare equity analysis policy

Sound Transit Board of Directors Resolution R2013-19 established policies for conducting equity analyses of fare changes impacting minority and low income populations. This policy establishes that Sound Transit will conduct a fare equity analysis during the planning phase of a potential fare change to determine whether the proposed fare change would have a disparate impact on minority populations and/or a disproportionate burden on low-income populations. If any disparate impact or disproportionate burden is found, Sound Transit will consider steps to avoid, minimize, or mitigate the adverse impacts and reanalyze the modified changes to determine if the impacts are removed or lessened.

Sound Transit’s policy defines these impacts as follows:

A disparate impact occurs when the minority percentage of the population adversely affected by a fare change is greater than the average minority percentage of the population of Sound Transit’s service area.

A disproportionate burden occurs when the low income percentage of the population adversely affected by a fare change is greater than the average low income percentage of the population of Sound Transit’s service area.

Public involvement in developing the recommended fare change was conducted pursuant to Sound Transit’s Inclusive Public Participation Policy, Resolution R2011-15. This public involvement effort is described in greater detail in the following sections.

Definitions & Data Sources

The data used in this analysis were collected from on-board surveys conducted by Sound Transit in 2015-16 (Sound Transit Express Bus Origin and Destination Study: Final Report, July, 2017, DRAFT). The final sample size for this survey was about 5,000 valid responses from Sound

Transit Express customers. Data were weighted to represent boardings at the corridor and route level. This analysis was based only on 3,500 survey responses that had indicated ethnicity, income level and household size. The minority/non-minority status of riders is based upon this subset of survey responses. Overall, 39 percent of respondents were minority, and 61 percent were non-minority

For the purposes of this analysis, and to qualify for the ORCA LIFT low income fare discount, Low Income is defined as at or below 200% of the Federal poverty level, based on 2016 Federal guidelines.

2016 - 200% of Federal Poverty Level	
Household size	Annual Income
1	\$23,540
2	\$31,860
3	\$40,180
4	\$48,500
5	\$56,820
6	\$65,140
7	\$73,460
8	\$81,780

The survey asked respondents to identify household size and household income within eleven income categories. The responses collected from respondents on household size and income category was used to classify respondents as low income, or non-low income.

The fare change options examined do not vary by fare payment method. Therefore, this analysis does not separately examine respondents by fare payment method.

Fare Change Options and Impacts by Customer Category

The fare change options are shown in Table 2 and Table 3 below for each of Sound Transit’s rider categories: Full Fare Adult, ORCA LIFT (low-income adult), Seniors and Riders with Disabilities (Regional Reduced Fare Permit - RRF) and Youth (age 6-18).

Table 2. ST Express Option 1 - \$3.25 Adult Flat Fare

Option 1 - Flat Fare				
Proposed Fare Change by Rider Group	Fare		Change	
	Existing	Proposed	\$	%
Adult				
One-County Trips on a One-County Route	\$2.75	\$3.25	\$0.50	18%
One-County Trips on a Two-County Route	\$2.75	\$3.25	\$0.50	18%
Two-County Trips	\$3.75	\$3.25	(\$0.50)	-13%
ORCA LIFT (low-income)				
One-County Trips on a One-County Route	\$1.50	\$1.50	-	-
One-County Trips on a Two-County Route	\$1.50	\$1.50	-	-
Two-County Trips	\$2.75	\$1.50	(\$1.25)	-45%
RRFP (seniors, riders with disabilities)				
One-County Trips on a One-County Route	\$1.00	\$1.00	-	-
One-County Trips on a Two-County Route	\$1.00	\$1.00	-	-
Two-County Trips	\$1.75	\$1.00	(\$0.75)	-43%
Youth				
One-County Trips on a One-County Route	\$1.50	\$1.50	-	-
One-County Trips on a Two-County Route	\$1.50	\$1.50	-	-
Two-County Trips	\$2.75	\$1.50	(\$1.25)	-45%

Option 1 would:

- Increase the Adult fare for one-zone trips by \$0.50, from \$2.75 to \$3.25, an increase of 18%. These represent about 70% of Adult ST Express boardings;
- Decrease the Adult fare for two-zone trips by \$0.50, from \$3.75 to \$3.25, a decrease of 13%. These represent about 30% of Adult ST Express boardings; and
- Establish a flat fare for all Low-Income (ORCA LIFT), RRFP and Youth riders at the current one-zone fare level, resulting in a fare decrease of about 45 percent for riders in these groups making two-zone trips.

Table 3. ST Express Option 2 – One- and Two-County Route-based Adult Fares

Option 2 - Eliminate One Zone Override				
Proposed Fare Change by Rider Group	Fare		Change	
	Existing	Proposed	\$	%
Adult				
One-County Trips on a One-County Route	\$2.75	\$2.75	-	-
One-County Trips on a Two-County Route	\$2.75	\$3.75	\$1.00	36%
Two-County Trips	\$3.75	\$3.75	-	-
ORCA LIFT (low-income)				
One-County Trips on a One-County Route	\$1.50	\$1.50	-	-
One-County Trips on a Two-County Route	\$1.50	\$1.50	-	-
Two-County Trips	\$2.75	\$1.50	(\$1.25)	-45%
RRFP (seniors, riders with disabilities)				
One-County Trips on a One-County Route	\$1.00	\$1.00	-	-
One-County Trips on a Two-County Route	\$1.00	\$1.00	-	-
Two-County Trips	\$1.75	\$1.00	(\$0.75)	-43%
Youth				
One-County Trips on a One-County Route	\$1.50	\$1.50	-	-
One-County Trips on a Two-County Route	\$1.50	\$1.50	-	-
Two-County Trips	\$2.75	\$1.50	(\$1.25)	-45%

Option 2 would:

- Result in no change to the Adult fare for one-county trips on routes operating within one county. The Adult fare for these trips would remain at \$2.75. These represent about 63% of Adult ST Express boardings;
- Result in no change to the Adult fare for two-county trips on routes serving two-counties (two-county routes). The Adult fare for these trips would remain at \$3.75. These represent about 30% of Adult ST Express boardings;
- Eliminate the one-county fare for Adult riders making one-county trips on two-county routes. This would increase the fare for these trips by \$1.00, from \$2.75 to \$3.75. These represent about 7% of Adult ST Express boardings; and
- As with Option 1, establish a flat fare for all Low-Income (ORCA LIFT), RRFP and Youth riders at the current one-zone fare level, resulting in a fare decrease of about 45 percent for riders in these groups making two-zone trips.

Fare Change Options and Impacts on Minority/Non-Minority Riders

Tables 4 and 5 below show the impact of these two options on minority and non-minority riders.

Currently, one-zone boardings represent about 70% of total full-fare Adult ST Express boardings. Riders making one-zone trips would have a fare increase with Option 1. Thirty-eight percent of these boardings are taken by minority riders. This is in line with the percentage of minority residents in the Sound Transit service area. Thus, Option 1 is determined to have no disparate impact pursuant to Sound Transit’s policies.

Table 4. ST Express Option 1 – Impacts on Minority and Non-Minority Riders

	Sound Transit Service Area	ST Express boardings negatively affected
% minority	38%	38%
% non-minority	62%	62%

Currently, one-zone trips on two-zone routes represent seven percent of ST Express full-fare Adult boardings. Riders making these trips would have a fare increase with Option 2. Forty-one percent of these boardings are taken by minority riders. This is slightly higher than the 38 percent of minority residents in the Sound Transit service area. Thus, Option 2 is determined to have a small, disparate impact pursuant to Sound Transit’s policies.

Table 5. ST Express Option 2 – Impacts on Minority and Non-Minority Riders

	Sound Transit Service Area	ST Express boardings negatively affected
% minority	38%	41%
% non-minority	62%	59%

Fare Change Options and Impacts on Low-Income Riders

As noted above, Sound Transit provides a discounted fare for low-income Adult riders via the ORCA LIFT fare. Sound Transit’s discounted fares for Youth, Seniors and Disabled riders also provide a discounted fare for low-income riders in these customer categories.

As shown in Tables 1 and 2, neither fare option would increase fares for low-income (ORCA LIFT), Youth, Seniors or Disabled riders. Both options maintain existing discounts for riders in these groups who make one-zone trips, and provide a fare reduction of about 45 percent for riders in these groups who currently make two-zone trips. Therefore, these options do not place a disproportionate burden on low-income riders.

Steps to Mitigate Disparate Impacts

Sound Transit Board Resolution R2013-19 also provides that if a proposed fare change is expected to result in a potential disparate impact or disproportionate burden, Sound Transit consider steps to avoid, minimize or mitigate the adverse impacts from this proposed fare change. Option 2 would increase the fare from \$2.75 to \$3.75 for the 7% of ST Express full-fare Adult boardings that are currently 1-zone trips on routes serving two counties. Survey data indicate that these riders are somewhat more likely to be minority (41%) than the minority percentage of the population of Sound Transit's service area (38%). Thus, Option 2 would have a slight, disparate impact on minority riders.

These impacts can be avoided by selecting Option 1 for implementation. If Option 2 is selected by the Sound Transit Board for implementation, Sound Transit will undertake the following steps to minimize and mitigate these impacts:

- 1) Provide customer information highlighting service alternatives that riders can take to avoid the higher fare – such as ST Link and Metro service between downtown Seattle and the U-District/University of Washington as an alternative to ST Express Route 512;
- 2) Provide targeted outreach to those locations without good service alternatives to try to ensure that all low-income riders (both minority and non-minority) who qualify are enrolled in the ORCA LIFT program and can take advantage of the reduced fare. Routes with the greatest number of impacted riders would be:
 - Route 535 – Lynnwood to Bellevue,
 - Route 574 – Lakewood to SeaTac,
 - Route 578 –Puyallup to Seattle.

Finally, regardless of the option adopted, Sound Transit will use this fare change as an opportunity to conduct additional outreach to encourage those riders who qualify to enroll in the ORCA LIFT program to take advantage of the reduced fare for low-income riders.

Public Outreach

Sound Transit implemented a public outreach effort to engage a cross section of customers, representative of the diversity of Sound Transit's service area. This effort is documented in the [2018 ST Express Fare Simplification Public Outreach Report](#).