

County Connector Passenger Survey Report

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whatcom council of governments

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Introduction

The County Connector bus service began in 2005 with funding from a two million dollar state appropriation. Island Transit, Skagit Transit (SKAT) and Whatcom Transportation Authority (WTA) initiated a collaborative transit service connecting four counties along state routes. There are four county connector routes as of June 30, 2015. This report summarizes results of the first passenger survey conducted on the county connector service. The County Connector Passenger Survey was funded by the Washington State Department of Transportation (WDOT) using Regional Transportation Planning Organization (RTPO) funds. The Whatcom Council of Governments (WCOG) conducted the survey in March and April of 2015.

- Route **80x** connects Skagit Station in Mount Vernon with the Bellingham Transit Station in Bellingham, stopping at Lincoln Creek Park and Ride, Alger Park and Ride and Chuckanut Park and Ride. There are eight trips Monday – Friday and four trips on Saturday, shared evenly between Skagit Transit and Whatcom Transportation Authority.
- Route **90x** connects the Chuckanut Park & Ride to Everett Station (with connections to Seattle), stopping at Skagit Station, South Mount Vernon Park & Ride, Everett Community College and Providence Hospital. There are eleven round trips a day Monday – Friday. It is operated by Skagit Transit.
- Route **411W** is operated by Island Transit and connects Whidbey Island to March’s Point. The route originates in Oak Harbor and makes a number of stops en route to March’s Point. There are thirteen roundtrips Monday – Friday. Skagit Transit Route **40x** adds to this route connecting March’s Point to Skagit Station in Mt. Vernon. Route 40x is considered local service and is not reported with this survey data.
- Route **411C** is operated by Island Transit and connects Camano Island with Skagit Station, with a few stops in Stanwood (Snohomish County). There are nine roundtrips Monday – Friday.

Goals

The County Connector Survey had four broad goals:

- To show park and ride usage
- To show the environmental impact of corridor transit service
- To communicate the importance of county connector service to policy makers
- To have 80 percent of riders respond to the survey



Figure 1: County Connector bus routes

Methodology

There are a total of 82 County Connector runs per day. WCOG worked closely with the transit agencies to develop the survey instrument, choose survey days, develop passenger interview protocols and staff training requirements. WCOG surveyed each route on a Tuesday and a Wednesday for a total of 164 runs.

Survey Dates:

- 80x & 90x: March 10, 11, 17 & 18
- 411w: April 7 & 8
- 411c: April 14, 15, 21 & 22

WCOG hired and trained five temporary employees to administer surveys. Paper surveys were distributed when passengers boarded the bus. The one-page survey form was printed in English on one side and Spanish on the other. As an incentive for taking the survey passengers were given a pen with the inscription “I ride the county connector”.

Route Identification

Each transit run has a distinct departure time, date and location. Each run was given a unique identification code that included the route name, the direction of travel, the day of the week and the run number. For example: 411wSBW1.

Results

A total of 1,450 passengers filled out a survey form. Ten percent of those surveyed were on route 411C, 24 percent on route 411W, 30 percent on route 90x and 36 percent on route 80x. The distribution of survey responses per route is shown in Figure 2. The total estimated passenger miles for the survey participants is 33,238.

Route	Total Miles
411c	1,896
411w	4,106
80x	12,980
90x	14,256
Grand Total	33,238

Table 1: Passenger miles.

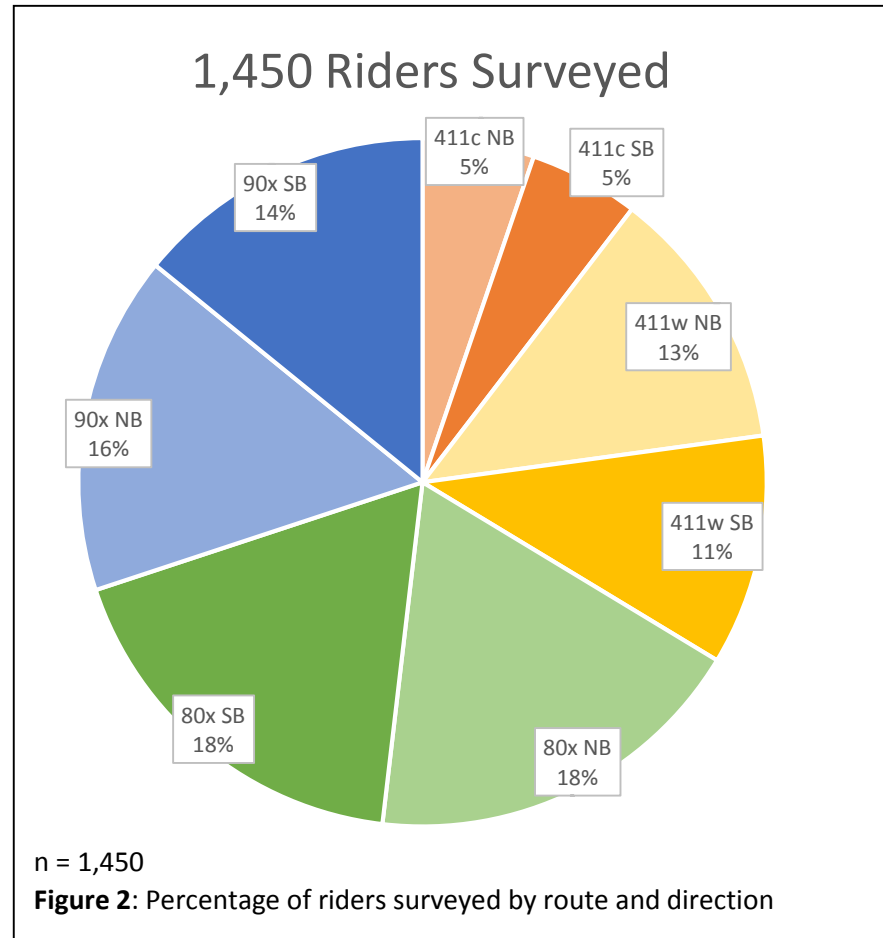
Analysis:

A total of 1,450 people filled out a survey and the reported ridership during the survey period was 1,812. A total of 80 percent of passengers filled out a survey card. Detailed ridership for each route is shown in Table 2.

The distribution of ridership on Northbound (NB) and Southbound (SB) route is balanced; the rest of this document reports total ridership by route and does not call out NB or SB. Unless otherwise noted, results are reported as a percentage of the total number of riders that filled out a survey.

Route	Surveys	Ridership	Percent of Riders who Took Survey
90x	436	509	86%
80x	526	649	81%
411w	336	461	73%
411c	152	193	79%
<i>SUM</i>	<i>1450</i>	<i>1812</i>	<i>80%</i>

Table 2: Ridership and percent of riders who took survey



Question 1: What is your zip code?

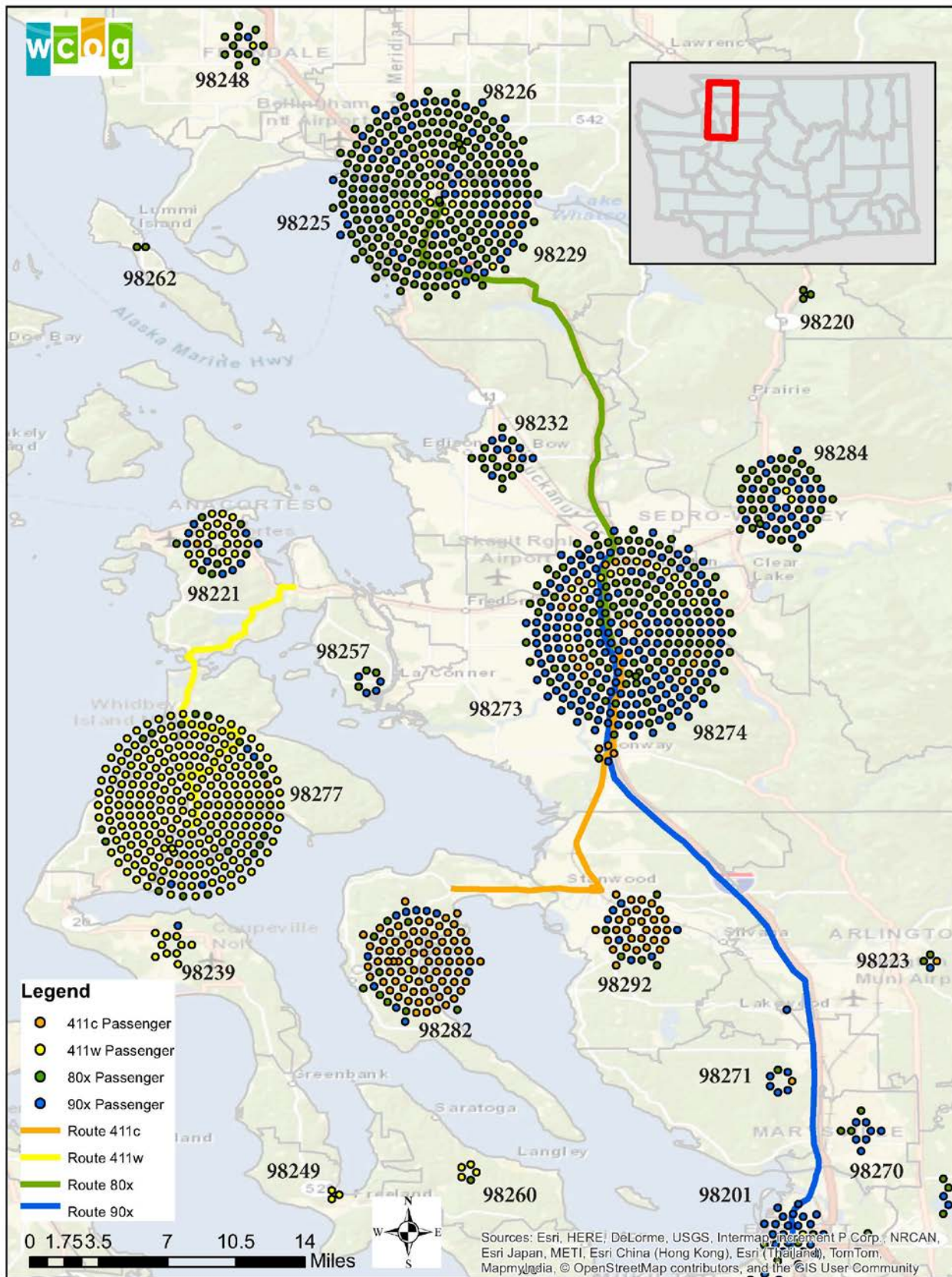
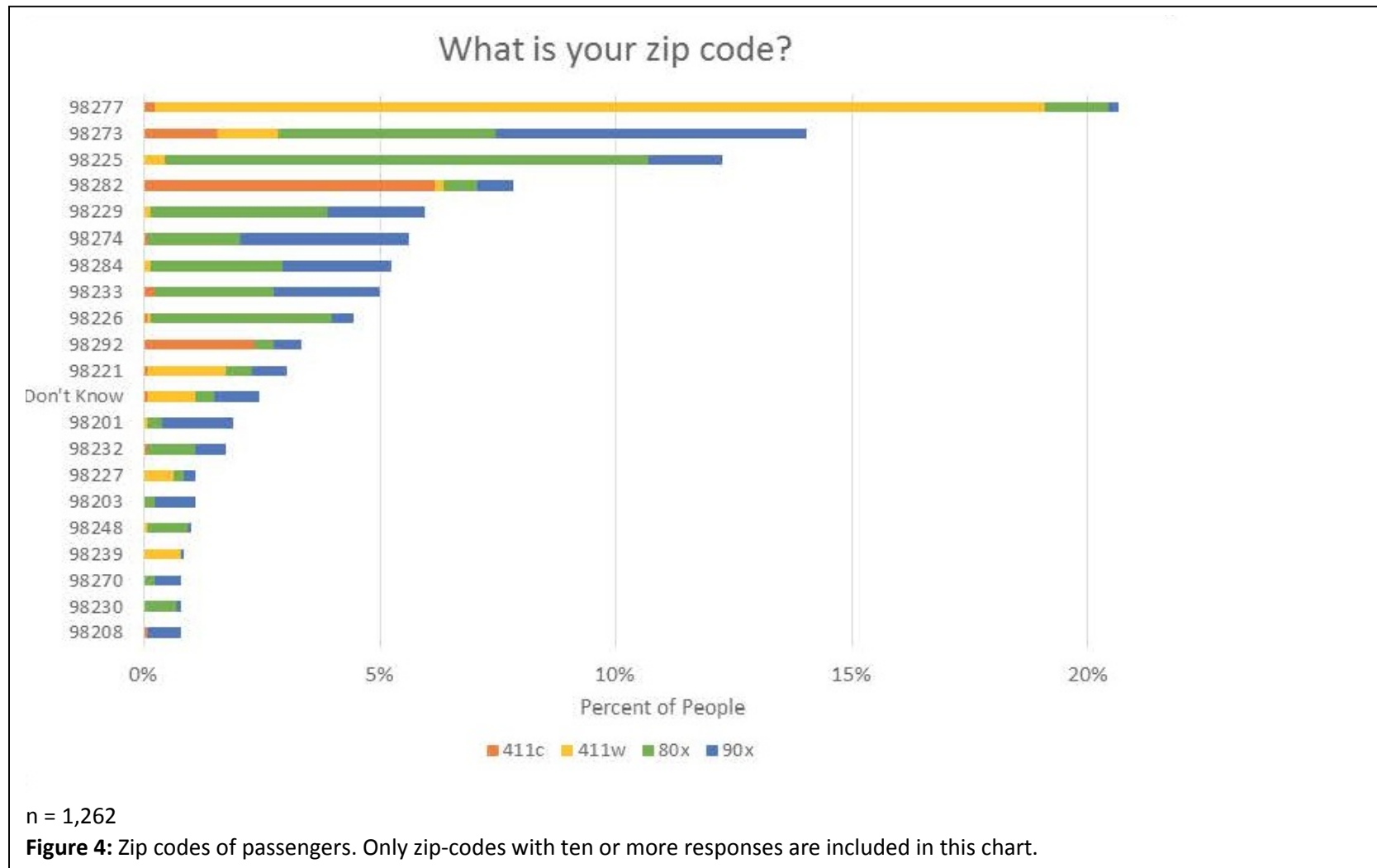


Figure 3: Map of Passenger Zip Code Residences. Each dot represents one person that filled out a survey. A green dot in the 98229 zip code means that a person living in zip code 98229 rode the 80x.

Analysis:

Relative to where riders live, 80x is a two-way flow as evidenced by significant amounts of passenger residences on each end of the route. 90x serves more of a southbound flow. Both services draw a significant portion of ridership from areas east of the I-5 corridor.



Question 4: Where will you get off this bus?

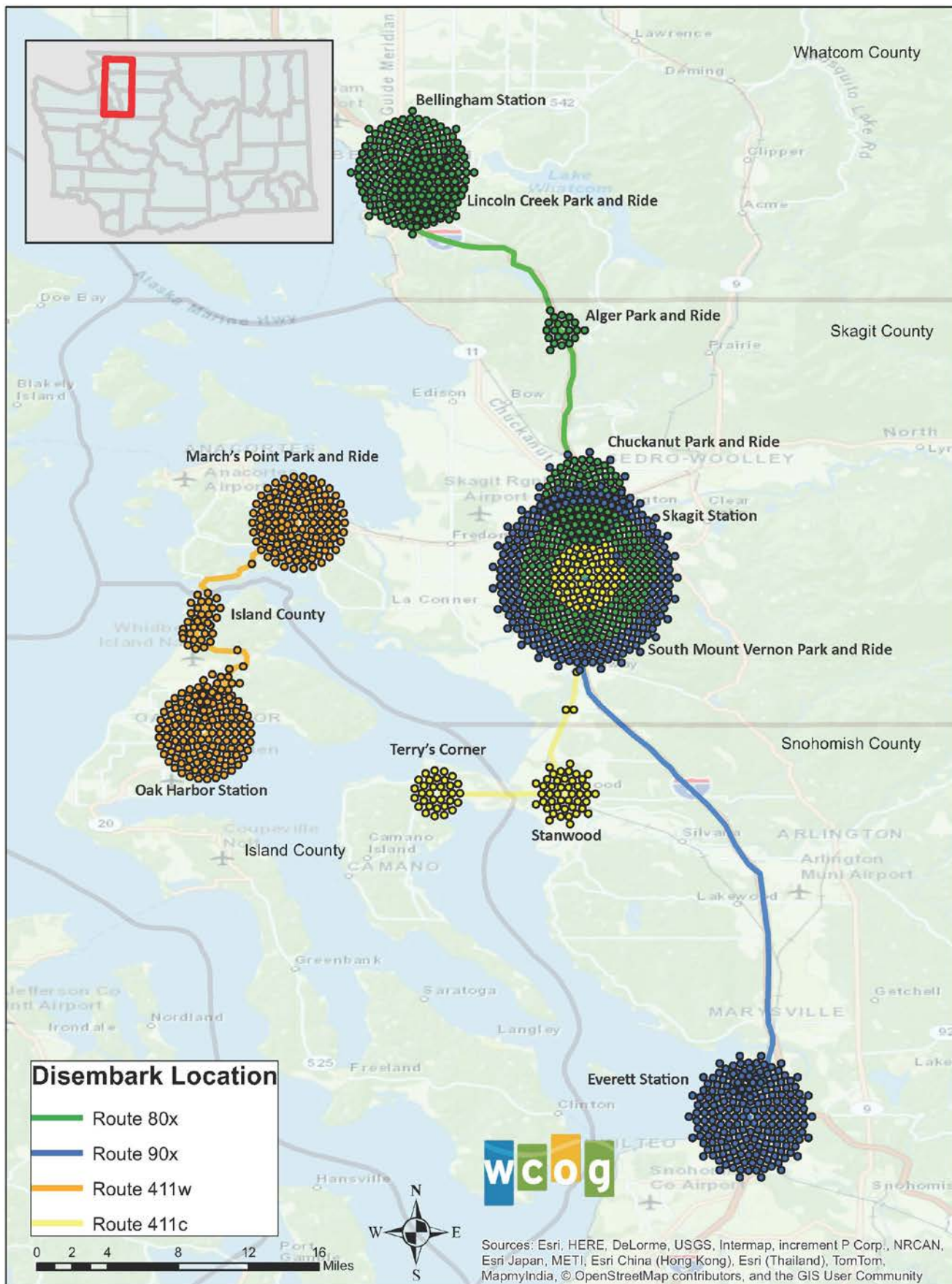


Figure 5: Disembark Location. Each dot represents one person that disembarked from the bus.

Question 4: Where will you get off this bus?

Since boarding and disembark locations are nearly identical only disembark locations are shown in this report.

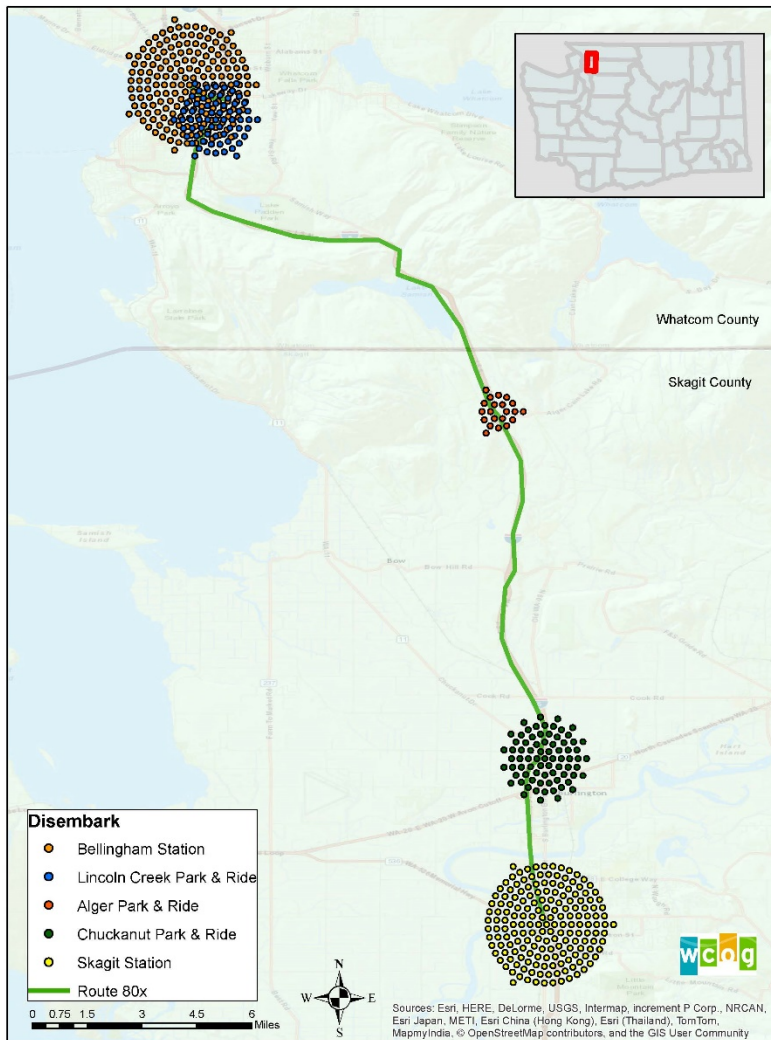


Figure 6: Disembark location of 80x passengers.

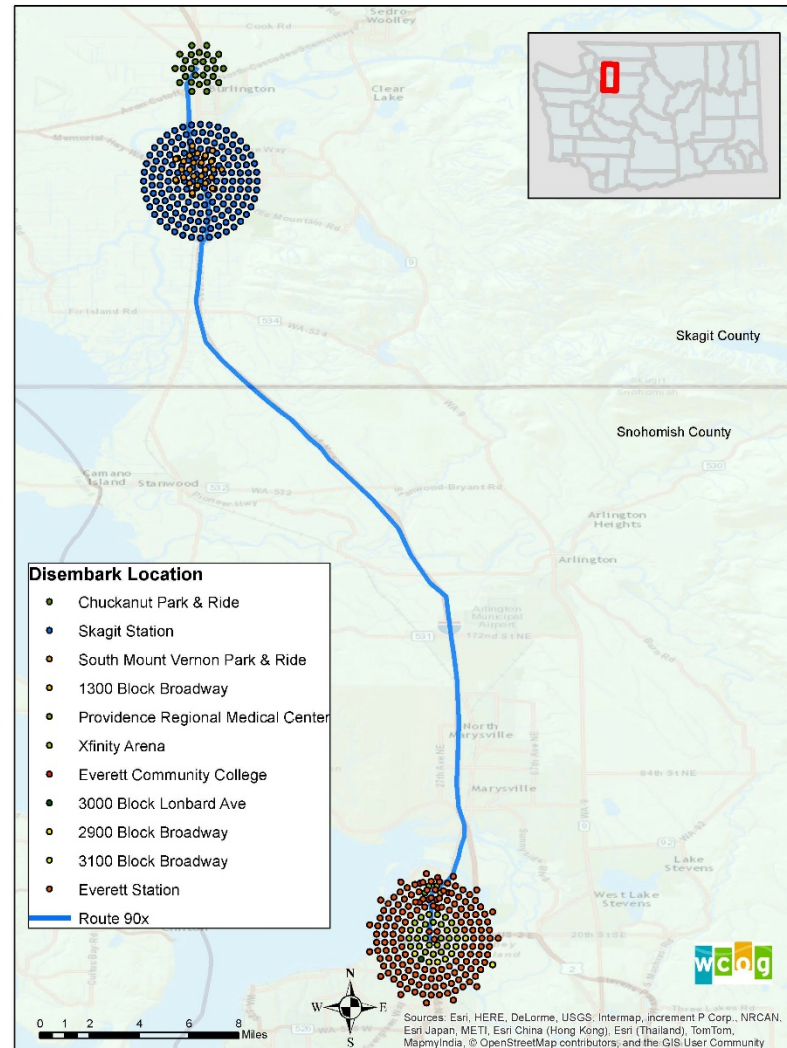


Figure 7: Disembark location of 90x passengers.

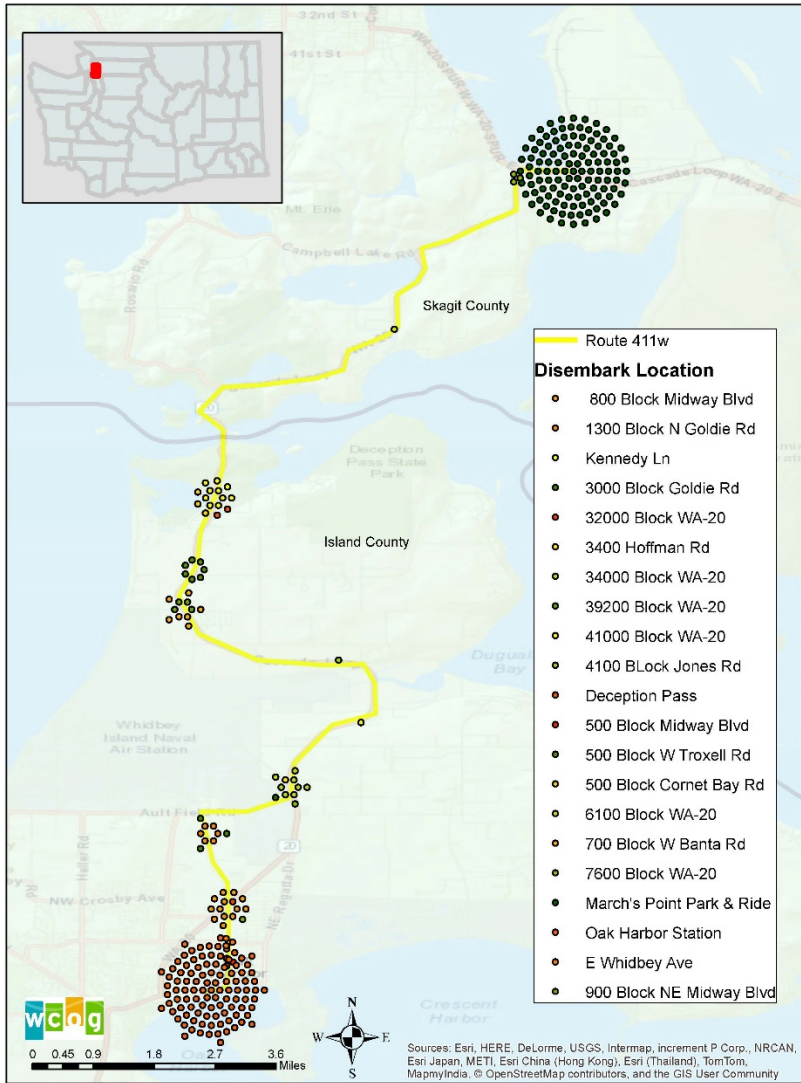


Figure 8: Dis embark location of 411w passengers.

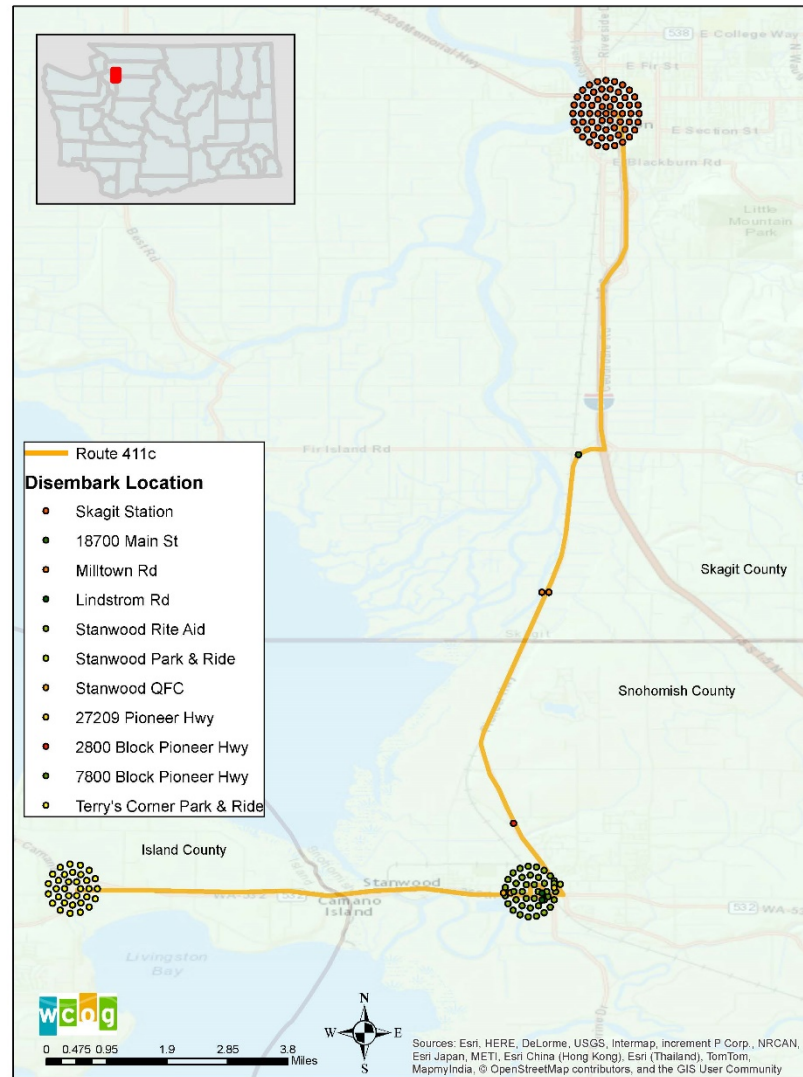
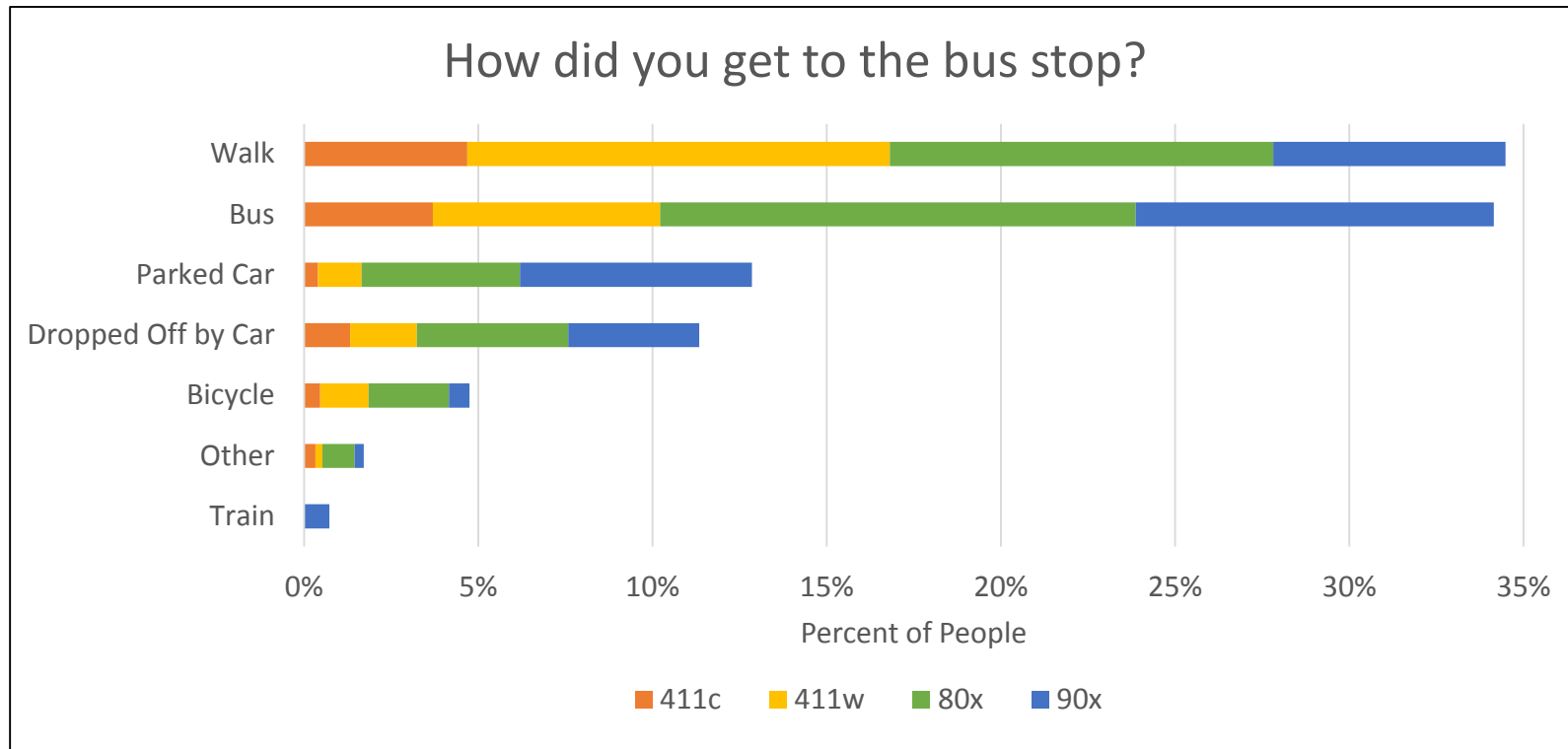


Figure 9: Dis embark location of 411c passengers.

Question 3: How did you get to the bus stop?

Although the question didn't ask respondents to choose more than one arrival mode, some did. This is why there are 1,522 mode choice responses for the 1,450 completed surveys. There did not seem to be an effective way to determine the most pertinent response so all are reported.



n = 1,522

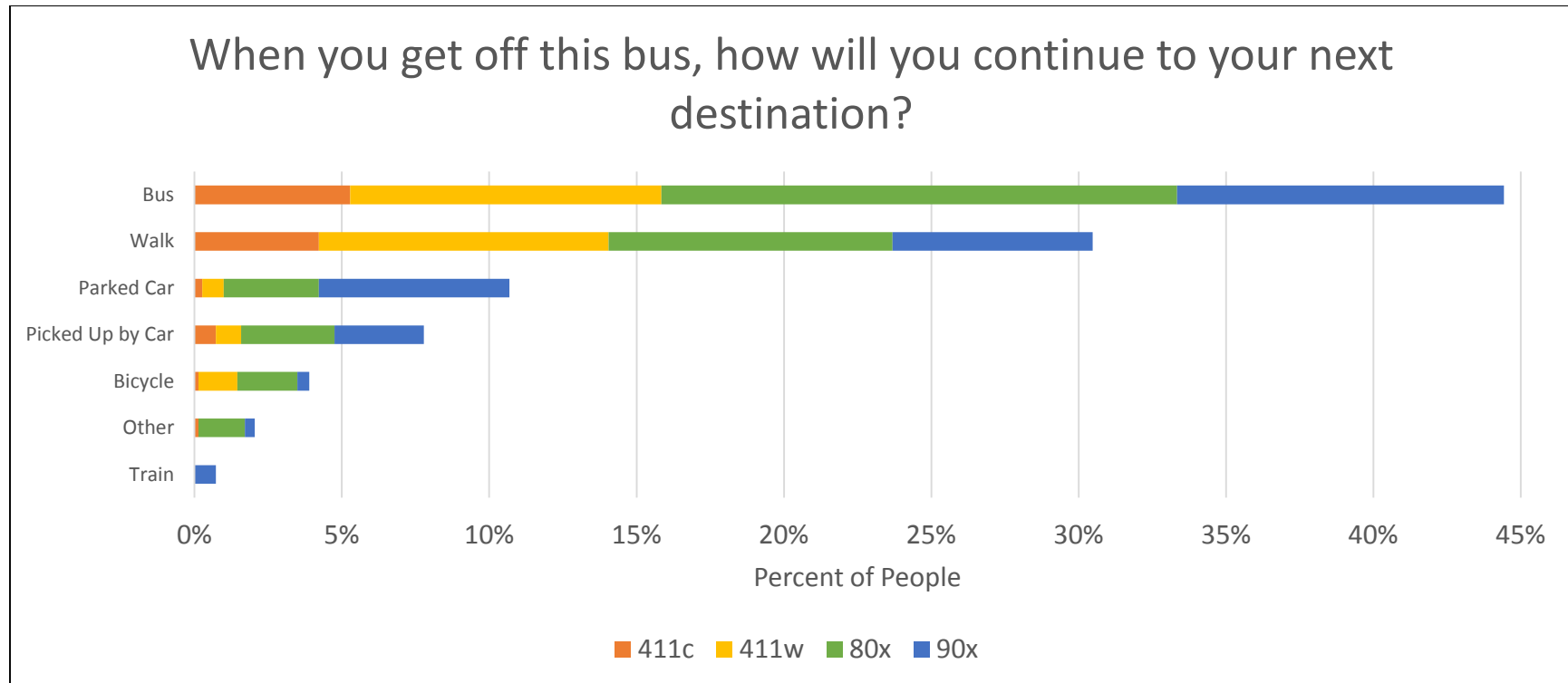
Figure 10: Arrival mode to bus stop.

Analysis:

Nearly 35 percent of people walked to the bus stop, followed closely by taking another bus. About 13 percent drove a car and parked it while about 12 percent were dropped off by car. Only people who took the 90x connected to the route via train. Both the Everett Station and the Skagit Station are served by trains. The high percentage of people who walked to the boarding location shows the value of transit proximity. While overall boardings at park and ride locations are very high, the percentage of those passengers who parked a car at those locations is relatively low.

Question 5: When you get off this bus, how will you continue to your next destination?

As with boarding mode, we didn't specify for people to choose more than one disembark mode, however some did. This is why there are 1,531 mode choice responses while only 1,450 people took the survey. There is no way to determine the most pertinent response so we reported all of them.



n = 1,531 **Figure 11:** Transportation mode to next destination.

Analysis:

The high rate (nearly 45%) of bus connections illustrates effective integration with other regional and local transit service such as Community Transit and the Sounder train and that the County Connector is part of a larger service framework providing transportation along the entire I-5 corridor in Washington.

Question 6: What city is your final destination in?

Mount Vernon is the most common destination with 21 percent of passengers naming it as their final destination. It is followed by Bellingham, Oak Harbor and Everett. 64 percent of riders surveyed named one of those four cities as their final destination.

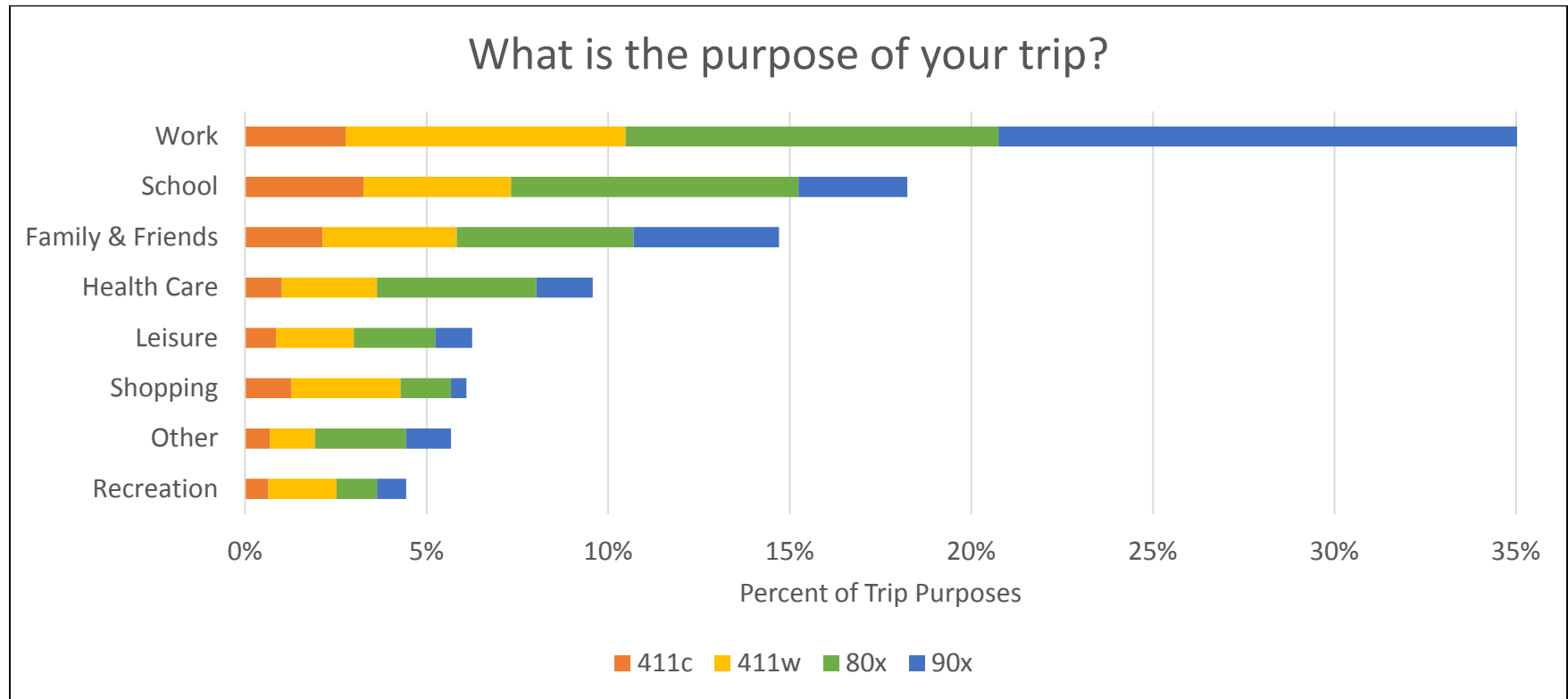
Only cities that had ten or more responses are shown in Table 3.

What city is your final destination in?	Number	Percent
Mount Vernon	306	21%
Bellingham	286	20%
Oak Harbor	187	13%
Everett	138	10%
Burlington	66	5%
Anacortes	61	4%
Camano Island	47	3%
Seattle	46	3%
Blank	43	3%
Stanwood	40	3%
Sedro Woolley	33	2%
Arlington	25	2%
Alger	22	2%
Marysville	10	1%

Table 3: Location of passenger’s final destination

Question 7: What is the purpose of your trip?

The question instructed respondents that they could choose more than one answer. With 1,450 completed surveys there were 1,870 trip purposes identified.

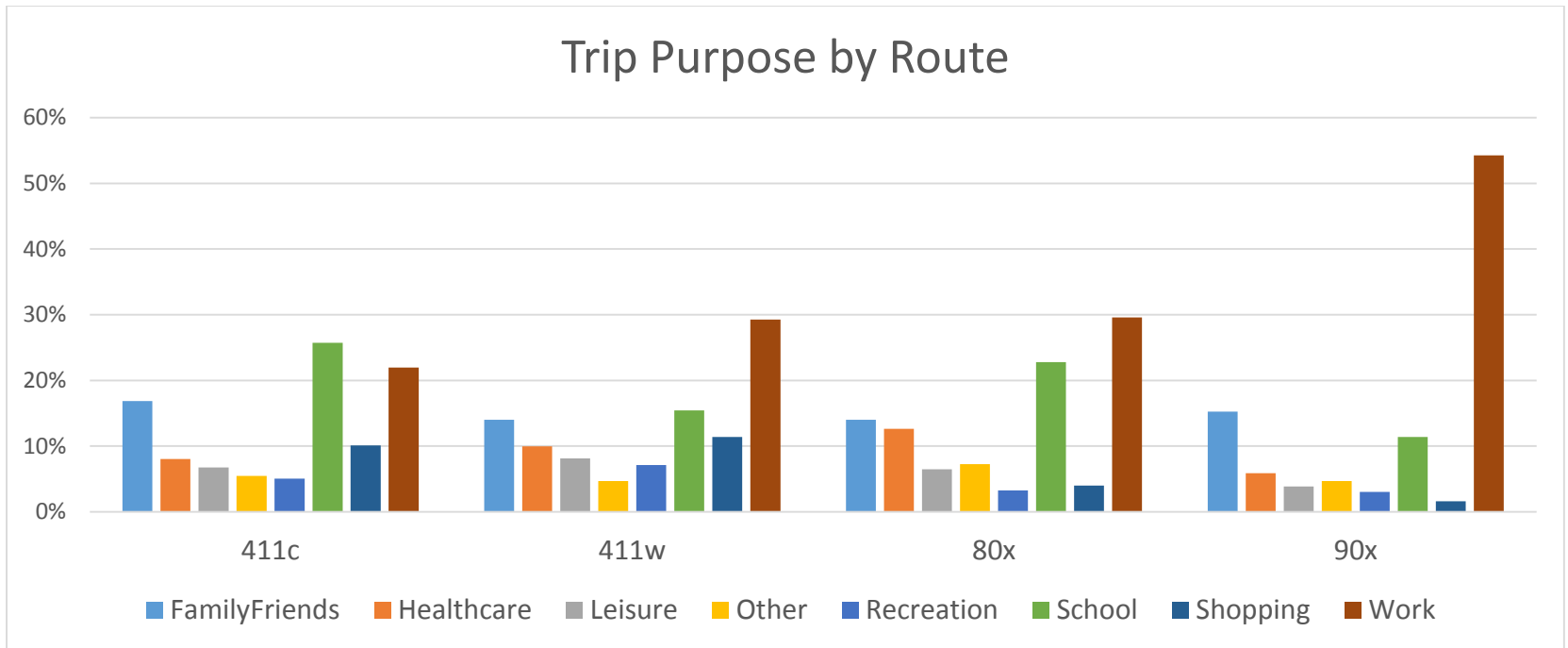


n=1,870

Figure 12: Trip purpose.

Analysis:

Trips to and from work are by far the largest single trip purpose (35 percent) followed by school trips (18 percent).



n = 411c: 237, 411w:492, 80x: 649, 90x: 492

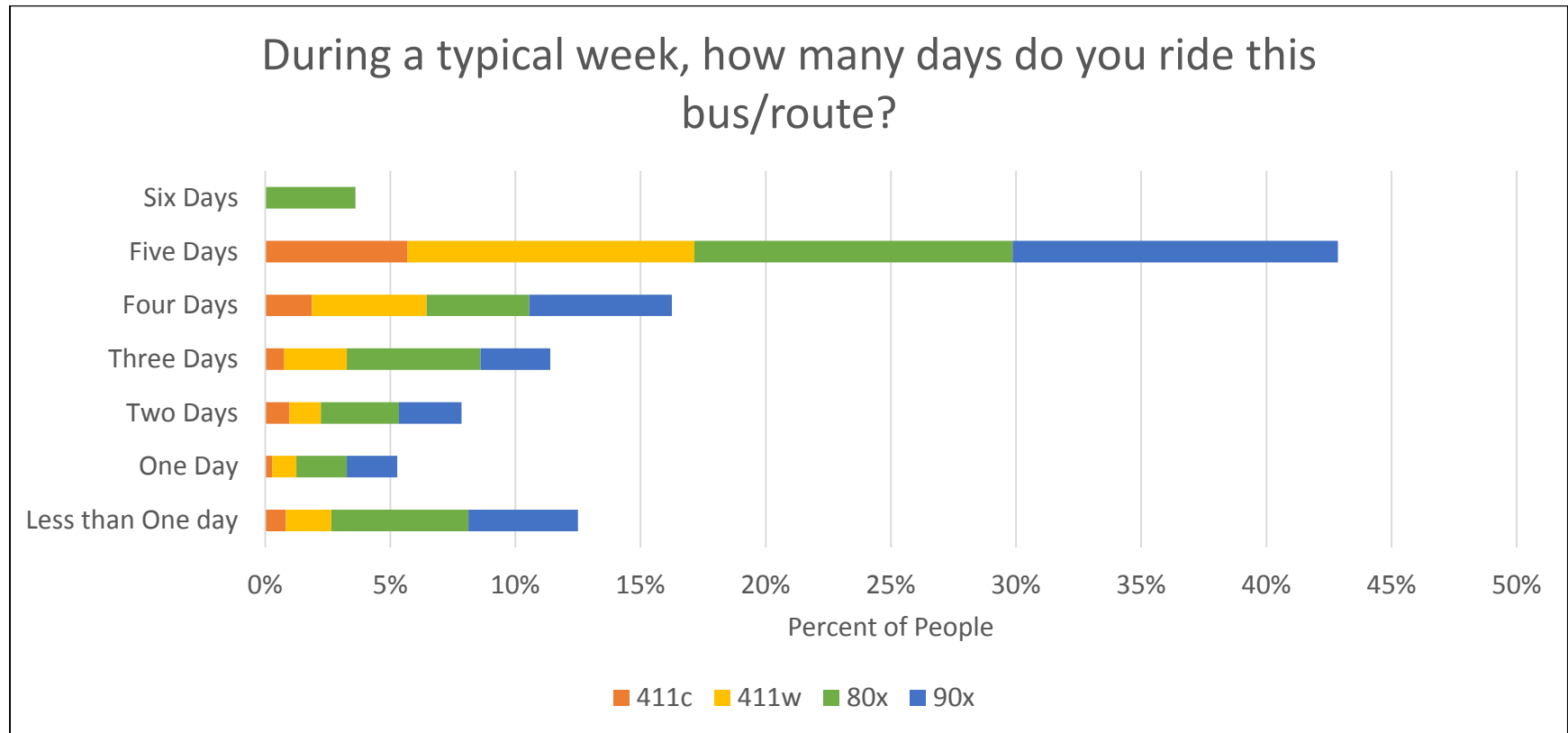
Figure 13: Trip purpose by route.

Analysis:

About 55 percent of passengers on the 90x are going to work; very few people ride the 90x for recreation and shopping. Passengers on route 411C ride the bus for school trips at a higher rate than they do for work trips.

Question 8: During a typical week, how many days do you ride this bus/route?

This question was asked to better understand the extent to which the County Connector has become part of people’s routine transportation and the corresponding implication for the Connector’s effectiveness in enabling would be drivers to use a non-SOV mode.



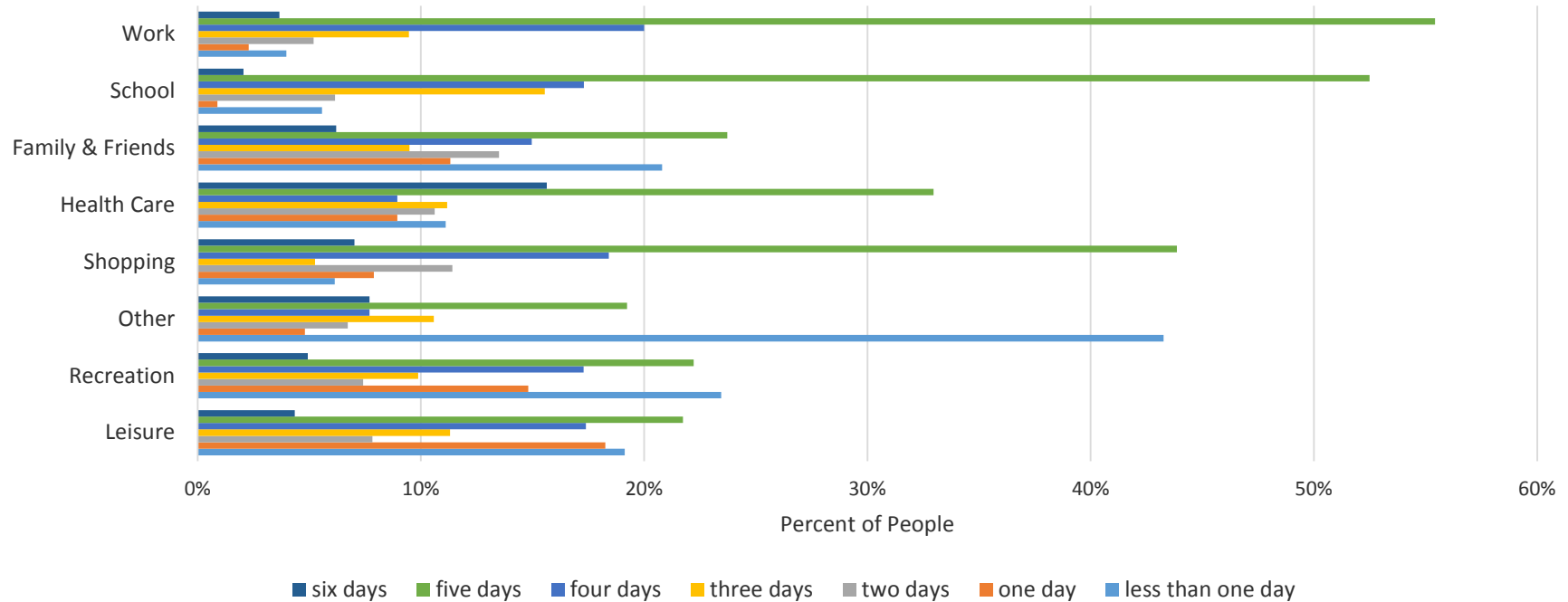
n = 1,450

Figure 15: Frequency that passengers ride the county connector.

Analysis:

As might be expected given the concentration of trip purposes around employment, the vast majority of passengers ride the bus four or five days a week (57 percent). The least amount of passengers ride the county connector six days a week, which is to be expected since only the 80x runs six days a week.

Trip Purpose & Frequency



n = Work: 655, School: 341, Family & Friends: 274, Health Care: 179, Shopping: 114, Other: 104, Recreation: 81, Leisure: 115

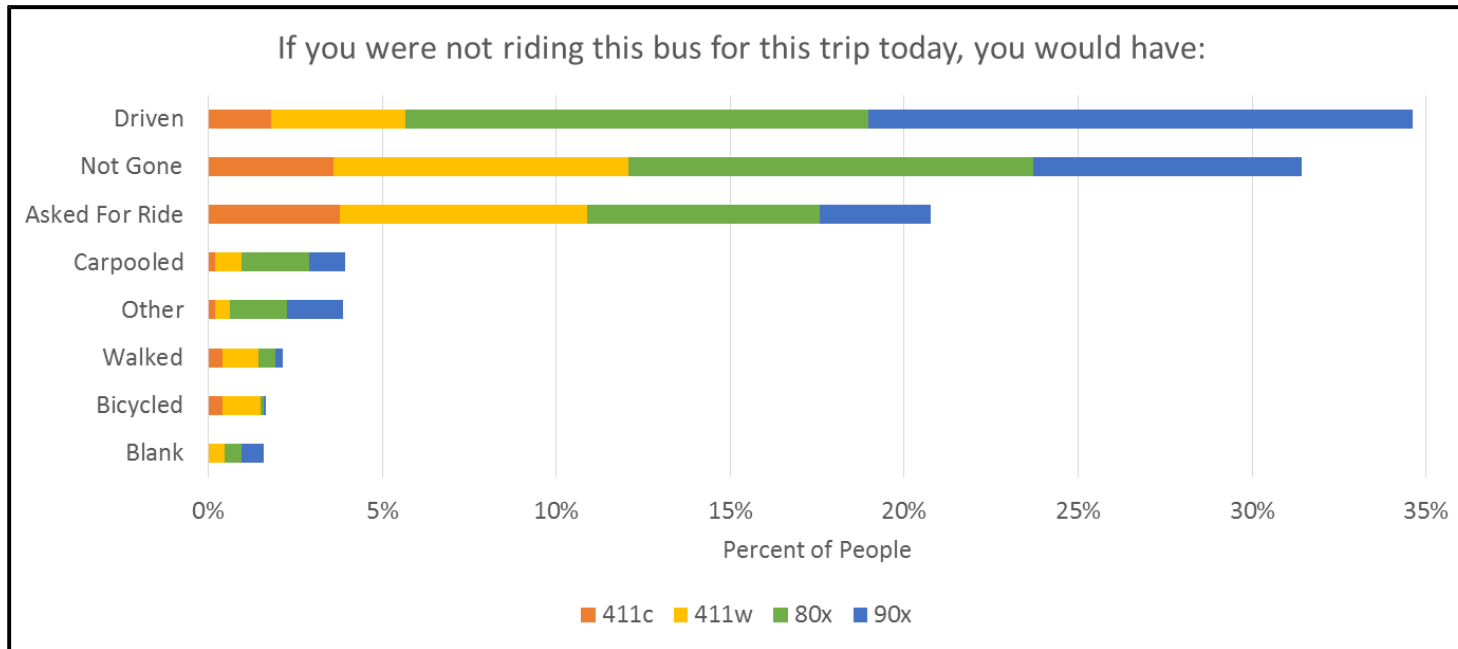
Figure 14: Trip purpose and frequency that passengers ride the bus for that purpose.

Analysis:

About 55 percent of people who ride the County Connector for work or school purposes are doing so five days a week. A relatively high percentage (35 percent) of people said they ride the bus five days a week for health care. The high percentage may be due to the fact that people were able to choose more than one trip purpose while filling out the survey, e.g. today I'm riding the bus for work and health care and I usually ride the bus five days a week. That person may ride the bus to work five days a week, but only go to a health appointment once or twice a month.

Question 9: If you were not riding this bus for this trip today, you would have _____.

Another gauge of benefits created by the County Connector is the next-best transportation alternative of people who are currently using the service.



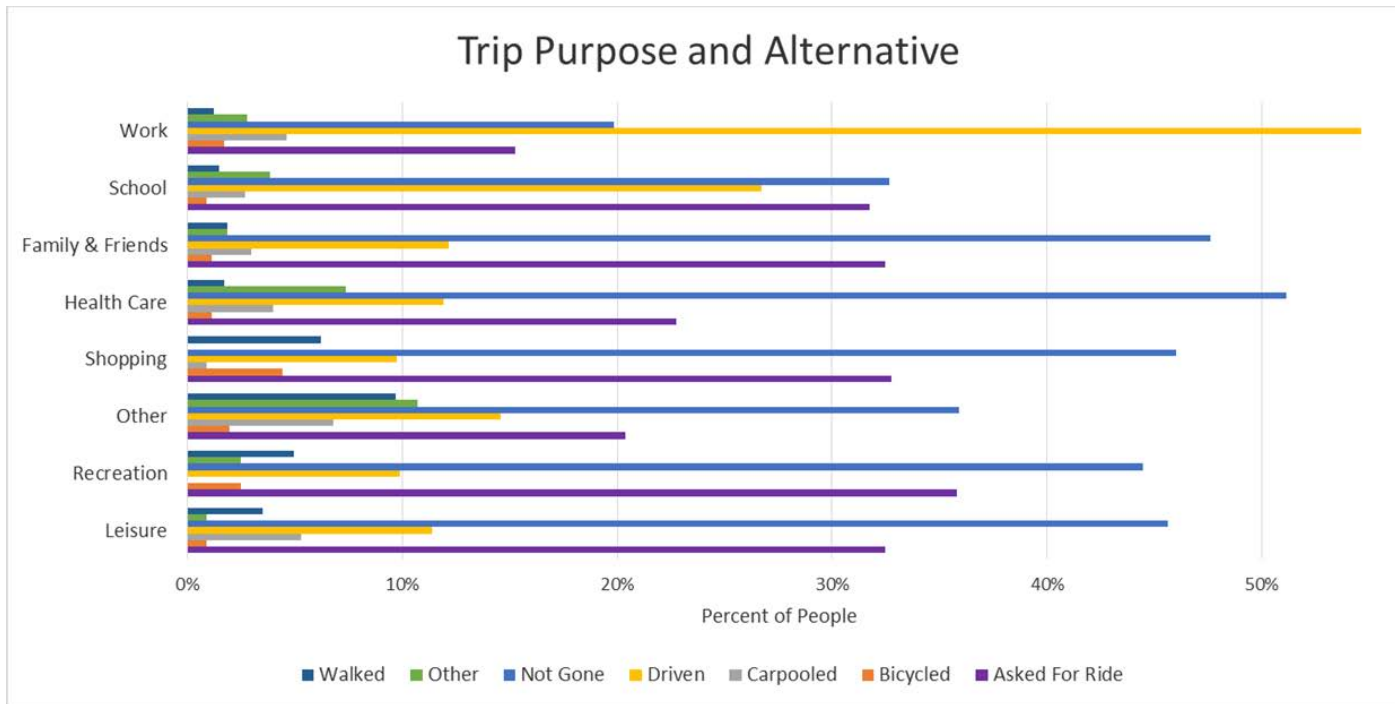
n = 1,450 **Figure 16:** Transportation alternative to bus.

Analysis:

Nearly 35 percent of passengers surveyed would have driven if they were not riding the bus. About 32 percent of passengers had no immediate alternative to the bus. A little over 21 percent would have asked for a ride. Under 5 percent said they would have carpooled, walked or bicycled. This data provides an important estimate of the number of cars that the County Connector removes from the state system. About 4 percent of passengers marked “Other”, some filled in the blank with Greyhound, Bolt bus, other bus, skate board and some left it blank. About 2 percent of passengers did not answer the question.

	411c	411w	80x	90x
Blank	0%	2%	1%	2%
Asked For Ride	36%	31%	18%	11%
Bicycled	4%	5%	0%	0%
Carpooled	2%	3%	5%	3%
Driven	17%	17%	37%	52%
Not Gone	34%	36%	32%	26%
Other	2%	2%	5%	5%
Walked	4%	4%	1%	1%

Table 4: Trip alternative by route.



n = Work: 650, School: 337, Family & Friends: 271, Health Care: 176, Shopping: 113, Other: 103, Recreation: 81, Leisure: 114

Figure 17: Trip purpose and transportation alternative.

Analysis:

Looking at trip purpose and alternative we see that 55 percent of those that use the bus for work would have driven their own car if the bus was not available. For every trip purpose other than Work “Not Gone” was the alternative chosen most often. 51 percent of people who were riding the bus to or from Health Care would not have gone if the bus wasn’t an option.

Under 15 percent of those surveyed would have driven their own car for purposes other than work and school.

Question 10: Have you already taken this survey?

This survey gathered information about trips and trip characteristics on the County Connector. While it was fine that individuals completed the survey more than once, we did want to have a sense of the extent to which this was the case.

Yes: 589 41 percent
 No: 861 59 percent

Environmental Benefits

When people ride a full bus instead of driving their own car they are helping to reduce greenhouse gas emissions. Passengers told us what mode of transportation they would have used if the bus was not available. Detailed alternatives for each route are shown in Table 4. Since we have estimated passenger miles for each route and data on passenger's next best transportation alternatives we can estimate the environmental benefits of people using the bus rather than driving a car. To estimate the total car trip miles avoided, the percent of passengers that would have driven (driven + ask for a ride) was multiplied by passenger miles per weekday.

An estimated 11,400 miles would have been driven each weekday by passengers if the county connector service was not available. To estimate the amount of greenhouse gases not emitted per weekday the estimated added miles was multiplied by 0.9147144798¹: the average pounds of CO₂

Route	CO2 Avoided via Reduced Car Trips				CO2 Emitted by Buses					Net +/- CO2
	Passenger Miles per Weekday	Percent That Would Have Added a Car Trip	Total Additional Car Trip miles	Carbon Dioxide (lbs/avoided per weekday)	Daily Miles	MPG	lbs CO2/gallon	CO2 lbs/mile	Carbon Dioxide (lbs/emitted by Bus)	Net lbs. of Carbon Dioxide per Weekday
				0.9147 #/mile						
411C NB	549	53%	291	266	154	6.9	19.6	2.84	437	171
411C SB	723	53%	383	351	154	6.9	19.6	2.84	437	86
411W NB	1,770	48%	850	777	221	6.4	22.2	3.47	767	-10
411W SB	1,347	48%	647	591	221	6.4	22.2	3.47	767	176
80X NB	3,328	55%	1830	1,674	229	6.4	22.2	3.47	794	-880
80X SB	3,536	55%	1945	1,779	229	6.4	22.2	3.47	794	-985
90X NB	4,412	63%	2780	2,543	369	6.4	22.2	3.47	1,279	-1,264
90X SB	4,246	63%	2675	2,447	369	6.4	22.2	3.47	1,279	-1,168
Combined	19,911		11,400	10,428	1,944				6,553	-3,875

Table 5: Carbon Dioxide avoided via reduced car trips and Carbon Dioxide emitted by buses.

emitted per passenger vehicle mile. To adequately estimate the net pollution avoided the Carbon Dioxide emissions from the transit vehicles are also included. As shown in Table 5 the 80x, 90x and 411w NB have a net CO₂ emissions decrease; the 411w SB and 411c routes have a net CO₂ emissions increase. The County Connector Services as a whole reduce CO₂ emissions by 3,875 pounds per weekday or 1,011,375 pounds of CO₂ not being emitted into the air annually².

¹ Environmental Protection Agency: (8,887 grams of CO₂ per gallon of gasoline / 21.4 miles per gallon) / 454 = pounds CO₂ per mile

<http://www.epa.gov/cleanenergy/energy-resources/refs.html>

² 261 working days * 3,875 lbs CO₂ per day

Health Benefits

The health benefits of transit can be quantified by both the amount of pollution not emitted into local air and water and by the physical activity experienced by those who walked or bicycled to the bus stop. Nearly 40 percent of passengers either walked or bicycled to their transit stop. An unquantifiable benefit is the increase in mental health experienced by passengers when they interact with fellow passengers. This is especially important for senior citizens who are unable to drive themselves and would be home-bound without transit.

While a relatively low number of people use the County Connector to access health care (about nine percent) over 50 percent of those riders would not have been able to make it to their appointment and about 20 percent would have to ask for a ride if they were not able to ride the bus.

Economic Benefits

When people ride transit instead of driving their own car they save money on gas and maintenance. Roundtrip from Bellingham Station to Skagit Station is 54 miles and would cost about \$8 in gas alone. That calculates to \$2,088 annually for those that make the trip five days a week. A monthly County Connector bus pass is \$50 or \$600 for the year. The cost savings of \$1,488 can be put into our local economy, instead of towards gasoline purchases. The IRS standard mileage reimbursement rate for 2015 is 57.5 cents per mile; this takes into consideration vehicle depreciation, insurance, maintenance and fuel. Applying the 57.5 cents per mile to the 11,400 miles that would otherwise be driven each weekday nets a cost savings to riders of \$1,710,855 annually¹.

About 18 percent of passengers are riding the County Connector to go to school; most trips being to post-secondary institutions. Ensuring access to higher education is an important ingredient to our state's competitiveness and economic vitality. The County Connector allows people who live in one county and work in another to arrive at work without driving a single occupant vehicle. 35 percent of passengers are riding the County Connector to go to or from work; some survey respondents stated that they would need to move or find a new job if the County Connector was not available.

Conclusion

This study was undertaken because, while regional transit is of growing interest, and the County Connector has enjoyed quick and sustained ridership, there was insufficient information to estimate and describe the benefits of the service in terms of the state transportation system, regional economies, and quality-of-life measures. This study provides the information that decision makers were asking for in order to have a meaningful conversation about a changing state role in supporting regional transit operations.

¹(11,400 miles per weekday * 261 weekdays) * 57.5 cents

The study verified several important themes:

- The County Connector takes a significant number of cars off of state highways, advancing state goals of congestion relief, system preservation, and multi-modalism.
- The County Connector serves transportation that is essential to our economy. The largest majority of trips consist of people going to work and school (35 percent and 18 percent).
- The County Connector is the only option for a significant portion of riders (about 32 percent); a little over 20 percent of riders would have to ask for a ride if the bus were not available.

The County Connector buses are used by hundreds of residents daily in Whatcom, Skagit, Snohomish and Island Counties. The majority of people who ride the County Connector for work and school do so five days a week and would have otherwise driven a car. The County Connector is used by both choice and transit dependent riders. It serves as a means to access work, school, shopping, health care, leisure and social outings.

Goals of the survey:

- To show park and ride usage
 - ✓ Approximately 12 percent of all passengers arrived to their bus stop by driving their own car

By individual route the percentages that drove to the bus stop are:

- Route 411c: 4 percent
 - Route 411w: 5 percent
 - Route 80x: 12 percent
 - Route 90x: 23 percent
- To show the environmental impact of corridor transit service
 - ✓ 1,011,375 pounds of CO₂ are not emitted yearly.
 - To communicate the importance of county connector service to policy makers
 - ✓ This report serves as a communication tool for transit agencies and the public to use.
 - To have 80 percent of riders respond to the survey
 - ✓ 80 percent of riders took the survey.

Appendix A: Boarding Location

Boarding Location	411c NB	411c SB
286 & Pioneer Hwy	0	1
Broadmoore	0	1
Camano Island	6	0
Conway	2	0
Milltown Rd	5	0
Skagit Station	0	73
Stanwood	11	1
Stanwood Park & Ride	1	0
Stanwood QFC	0	4
Stanwood Rite-Aid	25	2
Terrys Corner	31	0
SUM	81	82

Boarding Location	90xNB	90x SB
Ashway	1	0
Broadway & Pacific	3	0
Broadway & Tower	1	0
Chuckanut Park & Ride	0	62
Comcast Arena	8	0
Everett Broadway & Pacific	4	0
Everett Community College	2	0
Everett Station	212	0
evergreen & 57th	1	0
Evergreen Way	1	0
Everett Hospital	1	0
Skagit Station	0	85
South Mount Vernon Park & Ride	1	55
Sum	235	202

Boarding Location	80x NB	80x SB
Skagit Station	191	0
Lincoln Street Park & Ride	2	60
Bellingham Station	0	209
Chuckanut Park & Ride	60	3
Alger Park & Ride	17	4
Sum	278	276

Boarding Location	411w NB	411w SB
10th & Q		1
Banta Rd	2	10
Chicago Title	1	
Cornet Bay Rd	6	5
Crosby Rd	1	
Deception Pass		1
Deception Pass	2	11
Dollar Tree	2	
Ducken Rd	2	
Fakama Taylor		1
Freeland	1	
Freeland Bush Pt	1	
Gabrielson	1	
Goldie Rd	3	
Goldie	1	
Heller Rd	1	
Hoffman Rd		1
Hwy 20 & Troxell		1
Jonus Oak harbor		1
Kennedy Ln	1	
Liberty	2	2
Liberty Market	8	3
March's Point		113
McDonalds	7	
Midway Street	8	2
Midway & 8th	1	
Midway @ US Bank	2	
Midway log cabin	1	
Mudbay Playhouse	1	
N. Oak Harbor Rd	1	
North Gate	1	1
North Gate Terrace	3	4
North Whidbey Community College	1	
Oak Harbor Playhouse	2	
Oak Harbor Station	99	
Route 6 Le Mesa Stop	1	
Sharps Corner		1
Soundview		1
Troxell Road	4	4
Troxell & Monkey Hill	1	
US Bank Oak Harbor	4	
Whidbey General Hospital North	3	
Whidbey	2	
Whidbey Playhouse	1	
SUM	180	162

Appendix B: Ridership Data From Transit Agencies

Each of the three transit agencies provided ridership data for the survey dates. The number of surveys collected was compared to the reported number of riders. Surveyors were not counted as a bus passenger. Surveyors also took note of how many people were on the bus.

Surveyors indicated how many people declined to take the survey and that number added to the number of surveys per route was consistent for these routes.

411C Camano Island

Ridership Adjusted takes into account the fact that the surveyor was counted. One rider was deducted from the ridership number reported by Island Transit.

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
15-Apr	6:40am	411CSBW1	0	1	0	
15-Apr	7:40am	411CSBW2	1	2	1	100%
15-Apr	8:40am	411CSBW3	5	6	5	100%
15-Apr	10:40am	411CSBW4	3	6	5	60%
22-Apr	2:10pm	411CSBW5	4	7	6	67%
22-Apr	4:10pm	411CSBW6	6	9	8	75%
22-Apr	5:10pm	411CSBW7	6	9	8	75%
22-Apr	6:10pm	411CSBW8	5	17	16	31%
22-Apr	7:10pm	411CSBW9	7	10	9	78%
		SUM	37	67	58	64%

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
15-Apr	5:55am	411CNBW1	3	4	3	100%
15-Apr	6:45am	411CNBW2	6	7	6	100%
15-Apr	7:55am	411CNBW3	5	7	6	83%
15-Apr	9:55am	411CNBW4	5	6	5	100%
22-Apr	1:30pm	411CNBW5	6	8	7	86%
22-Apr	3:30pm	411CNBW6	3	5	4	75%
22-Apr	4:30pm	411CNBW7	3	5	4	75%
22-Apr	5:30pm	411CNBW8	0	1	0	
22-Apr	6:30pm	411CNBW9	0	1	0	
		SUM	31	44	35	89%

411C Camano Island

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
21-Apr	6:40am	411CSBT1	2	5	4	50%
14-Apr	7:40am	411CSBT2	3	4	3	100%
14-Apr	8:40am	411CSBT3	3	4	3	100%
14-Apr	10:40am	411CSBT4	4	6	5	80%
14-Apr	2:10pm	411CSBT5	10	11	10	100%
14-Apr	4:10pm	411CSBT6	7	12	11	64%
14-Apr	5:10pm	411CSBT7	1	6	5	20%
14-Apr	6:10pm	411CSBT8	4	6	5	80%
14-Apr	7:10pm	411CSBT9	4	5	4	100%
		SUM	38	59	50	76%

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
21-Apr	5:55am	411CNBT1	9	10	9	100%
14-Apr	6:45am	411CNBT2	9	10	9	100%
14-Apr	7:55am	411CNBT3	8	11	10	80%
14-Apr	9:55am	411CNBT4	4	6	5	80%
14-Apr	1:30pm	411CNBT5	7	8	7	100%
14-Apr	3:30pm	411CNBT6	5	7	6	83%
14-Apr	4:30pm	411CNBT7	2	3	2	100%
14-Apr	5:30pm	411CNBT8	1	2	1	100%
14-Apr	6:30pm	411CNBT9	1	2	1	100%
		SUM	46	59	50	92%

411W Whidbey Island

Ridership Adjusted takes into account the fact that the surveyor was counted. One rider was deducted from the ridership number reported by Island Transit.

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
7-Apr	5:35am	411WNBT1	9	11	10	90%
7-Apr	6:35am	411WNBT2	14	19	18	78%
7-Apr	7:35am	411WNBT3	8	10	9	89%
7-Apr	8:35am	411WNBT4	9	14	13	69%
7-Apr	9:35am	411WNBT5	4	14	13	31%
7-Apr	10:35am	411WNBT6	1	4	3	33%
7-Apr	11:35am	411WNBT7	4	9	8	50%
7-Apr	2:00pm	411WNBT8	9	14	13	69%
7-Apr	3:00pm	411WNBT9	6	12	11	55%
7-Apr	4:00pm	411WNBT10	5	9	8	63%
7-Apr	5:00pm	411WNBT11	5	6	5	100%
7-Apr	6:00pm	411WNBT12	10	13	12	83%
7-Apr	7:00pm	411WNBT13	6	12	11	55%
		SUM	90	147	134	67%

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
7-Apr	6:10am	411WSBT1	0	1	0	
7-Apr	7:10am	411WSBT2	5	7	6	83%
7-Apr	8:10am	411WSBT3	3	5	4	75%
7-Apr	9:10am	411WSBT4	6	10	9	67%
7-Apr	10:10am	411WSBT5	4	6	5	80%
7-Apr	11:10am	411WSBT6	1	2	1	100%
7-Apr	12:10pm	411WSBT7	5	8	7	71%
7-Apr	2:40pm	411WSBT8	3	10	9	33%
7-Apr	3:40pm	411WSBT9	18	22	21	86%
7-Apr	4:40pm	411WSBT10	16	19	18	89%
7-Apr	5:40pm	411WSBT11	9	11	10	90%
7-Apr	6:40pm	411WSBT12	6	10	9	67%
7-Apr	7:40pm	411WSBT13	7	9	8	88%
		SUM	83	120	107	78%

411W Whidbey Island

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
8-Apr	6:10am	411WSBW1	1	5	4	25%
8-Apr	7:10am	411WSBW2	6	8	7	86%
8-Apr	8:10am	411WSBW3	6	11	10	60%
8-Apr	9:10am	411WSBW4	2	6	5	40%
8-Apr	10:10am	411WSBW5	5	10	9	56%
8-Apr	11:10am	411WSBW6	9	13	12	75%
8-Apr	12:10pm	411WSBW7	11	15	14	79%
8-Apr	2:40pm	411WSBW8	14	15	14	100%
8-Apr	3:40pm	411WSBW9	DNS	DNS	DNS	DNS
8-Apr	4:40pm	411WSBW10	3	6	5	60%
8-Apr	5:40pm	411WSBW11	12	13	12	100%
8-Apr	6:40pm	411WSBW12	DNS	DNS	DNS	DNS
8-Apr	7:40pm	411WSBW13	4	7	6	67%
		SUM	73	109	98	74%

Date	Time	Route ID	Surveys	Ridership	Ridership Adjusted	Percent of Riders Who Took Survey
8-Apr	5:35am	411WNBW1	8	11	10	80%
8-Apr	6:35am	411WNBW2	11	14	13	85%
8-Apr	7:35am	411WNBW3	11	17	16	69%
8-Apr	8:35am	411WNBW4	10	11	10	100%
8-Apr	9:35am	411WNBW5	11	20	19	58%
8-Apr	10:35am	411WNBW6	4	9	8	50%
8-Apr	11:35am	411WNBW7	7	11	10	70%
8-Apr	2:00pm	411WNBW8	8	11	10	80%
8-Apr	3:00pm	411WNBW9	DNS	DNS	DNS	DNS
8-Apr	4:00pm	411WNBW10	7	12	11	64%
8-Apr	5:00pm	411WNBW11	7	10	9	78%
8-Apr	6:00pm	411WNBW12	DNS	DNS	DNS	DNS
8-Apr	7:00pm	411WNBW13	6	7	6	100%
		SUM	90	133	122	74%

80x

The 80x is jointly operated by SKAT and WTA.

Date	Time	Route ID	Transit	surveys	Ridership	Percent of Riders Who Took Survey
18-Mar	6:45	80XNBW1	SKAT	17	24	71%
18-Mar	7:45	80XNBW2	WTA	6	14	43%
18-Mar	8:45	80XNBW3	SKAT	15	19	79%
18-Mar	10:45	80XNBW4	SKAT	18	14	129%
11-Mar	14:10	80XNBW5	WTA	18	30	60%
11-Mar	16:10	80XNBW6	WTA	21	22	95%
11-Mar	17:10	80XNBW7	SKAT	10	13	77%
11-Mar	18:15	80XNBW8	WTA	17	18	94%
			SUM	122	154	79%

Date	Time	Route ID	Transit	surveys	Ridership	Percent of Riders Who Took Survey
	6:40	80XSBW1	WTA	20	25	80%
18-Mar	7:40	80XSBW2	SKAT	19	18	106%
18-Mar	9:40	80XSBW3	SKAT	11	9	122%
18-Mar	11:40	80XSBW4	SKAT	9	8	113%
11-Mar	13:00	80XSBW5	WTA	7	7	100%
11-Mar	15:15	80XSBW6	WTA	31	32	97%
11-Mar	17:15	80XSBW7	WTA	26	33	79%
11-Mar	18:15	80XSBW8	WTA	15	18	83%
			SUM	138	150	92%

80x

The 80x is jointly operated by SKAT and WTA.

Date	Time	Route ID	Transit	surveys	Ridership	Percent of Riders Who Took Survey
10-Mar	6:45	80XNBT1	SKAT	24	31	77%
10-Mar	7:45	80XNBT2	WTA	9	13	69%
10-Mar	8:45	80XNBT3	SKAT	24	25	96%
10-Mar	10:45	80XNBT4	SKAT	29	37	78%
17-Mar	14:10	80XNBT5	WTA	11	13	85%
17-Mar	16:10	80XNBT6	WTA	22	33	67%
17-Mar	17:10	80XNBT7	SKAT	13	15	87%
17-Mar	18:15	80XNBT8	WTA	10	11	91%
			SUM	142	178	80%

Date	Time	Route ID	Transit	surveys	Ridership	Percent of Riders Who Took Survey
10-Mar	6:40	80XSBT1	WTA	23	26	88%
10-Mar	7:40	80XSBT2	SKAT	20	28	71%
10-Mar	9:40	80XSBT3	SKAT	6	7	86%
10-Mar	11:40	80XSBT4	SKAT	10	12	83%
17-Mar	13:00	80XSBT5	WTA	10	10	100%
17-Mar	15:15	80XSBT6	WTA	23	33	70%
17-Mar	17:15	80XSBT7	WTA	26	42	62%
17-Mar	18:15	80XSBT8	WTA	6	9	67%
			SUM	124	167	74%

90x

The 90x is operated by SKAT.

Date	Time	Route ID	surveys	Ridership	Percent of Riders Who Took Survey
10-Mar	5:50am	90XNBT1	6	6	100%
10-Mar	6:20am	90XNBT2	6	6	100%
10-Mar	6:50am	90XNBT3	4	6	67%
10-Mar	7:50am	90XNBT4	11	13	85%
10-Mar	8:35am	90XNBT5	4	5	80%
17-Mar	3:10pm	90XNBT6	20	23	87%
17-Mar	4:10pm	90XNBT7	21	27	78%
17-Mar	5:10pm	90XNBT8	17	24	71%
17-Mar	5:32pm*	90XNBT9	10	10	100%
17-Mar	6:20pm	90XNBT10	6	7	86%
17-Mar	7:20pm	90XNBT11	6	7	86%
		SUM	111	134	83%

Date	Time	Route ID	surveys	Ridership	Percent of Riders Who Took Survey
10-Mar	4:50am	90XSBT1	9	12	75%
10-Mar	5:15am	90XSBT2	5	7	71%
10-Mar	5:40am	90XSBT3	18	22	82%
10-Mar	6:20am	90XSBT4	13	16	81%
10-Mar	7:15am	90XSBT5	16	20	80%
17-Mar	1:50pm	90XSBT6	11	14	79%
17-Mar	2:50pm	90XSBT7	7	6	117%
17-Mar	4:05pm	90XSBT8	20	23	87%
17-Mar	4:20pm	90XSBT9	2	3	67%
17-Mar	5:15pm	90XSBT10	5	5	100%
17-Mar	6:15pm	90XSBT11	6	11	55%
		SUM	112	139	81%

90x

The 90x is operated by SKAT

Date	Time	Route ID	surveys	Ridership	Percent of Riders Who Took Survey
18-Mar	5:50am	90XNBW1	1	3	33%
18-Mar	6:20am	90XNBW2	7	9	78%
18-Mar	6:50am	90XNBW3	4	4	100%
18-Mar	7:50am	90XNBW4	10	11	91%
18-Mar	8:35am	90XNBW5	8	6	133%
11-Mar	3:10pm	90XNBW6	22	24	92%
11-Mar	4:10pm	90XNBW7	23	25	92%
11-Mar	5:10pm	90XNBW8	15	16	94%
11-Mar	5:32pm*	90XNBW9	14	14	100%
11-Mar	6:20pm	90XNBW10	8	10	80%
11-Mar	7:20pm	90XNBW11	8	8	100%
		SUM	120	130	92%

Date	Time	Route ID	surveys	Ridership	Percent of Riders Who Took Survey
18-Mar	4:50am	90XSBW1	12	12	100%
18-Mar	5:15am	90XSBW2	4	6	67%
18-Mar	5:40am	90XSBW3	19	22	86%
18-Mar	6:20am	90XSBW4	14	21	67%
18-Mar	7:15am	90XSBW5	13	11	118%
11-Mar	1:50pm	90XSBW6	7	7	100%
11-Mar	2:50pm	90XSBW7	1	2	50%
11-Mar	4:05pm	90XSBW8	10	12	83%
11-Mar	4:20pm	90XSBW9	3	1	300%
11-Mar	5:15pm	90XSBW10	5	5	100%
11-Mar	6:15pm	90XSBW11	5	7	71%
		SUM	93	106	88%

Appendix C: Passenger Miles Calculations

	Total Miles	# of surveys	Average Passenger miles	Average Reported Ridership	Est Total Passenger Miles/ Weekday	Would have Driven	Asked for Ride	"Would have Driven" Miles	"asked for ride" miles	Total added miles
Route	Distance from boarding to disembark		# surveys/miles		Ridership * Average miles	Would have driven	asked for ride	Est Passenger Miles * would have driven	Est Passenger Miles * asked for ride	Driven + Ask
411c NB	945.00	74	12.77	43	549.12	17%	36%	93.35	197.68	291.03
411c SB	951.00	71	13.39	54	723.30	17%	36%	122.96	260.39	383.35
411w NB	2,157.30	156	13.83	128	1,770.09	17%	31%	300.92	548.73	849.64
411w SB	1,948.40	149	13.08	103	1,346.88	17%	31%	228.97	417.53	646.50
80x NB	6,531.00	261	25.02	133	3,328.06	37%	18%	1,231.38	599.05	1,830.43
80x SB	6,449.00	259	24.90	142	3,535.75	37%	18%	1,308.23	636.43	1,944.66
90x NB	7,511.00	223	33.68	131	4,412.29	52%	11%	2,294.39	485.35	2,779.74
90x SB	6,745.00	197	34.24	124	4,245.58	52%	11%	2,207.70	467.01	2,674.72
										11,400.08
										miles

Appendix D: Survey Card 80x & 90x

This survey is voluntary and anonymous. The results will be used to communicate the importance of the County Connector bus services. Whatcom Transportation Authority, Skagit Transit and Island Transit value your feedback and thank you for your participation. We are asking you about the trip you are currently taking right now, so we do ask that you fill out the form even if you already did so on another route.

1. What is your zip code? _____

2. Where did you get on this bus? _____

3. How did you get to the bus stop:

- | | |
|---|---|
| <input type="checkbox"/> walk | <input type="checkbox"/> bicycle |
| <input type="checkbox"/> bus | <input type="checkbox"/> train |
| <input type="checkbox"/> dropped off by car | <input type="checkbox"/> drove own car and parked |
| <input type="checkbox"/> other _____ | |

4. Where will you get off this bus? _____

5. When you get off this bus, how will you continue to your next destination?

- | | |
|---|--|
| <input type="checkbox"/> walk | <input type="checkbox"/> bicycle |
| <input type="checkbox"/> other bus | <input type="checkbox"/> train |
| <input type="checkbox"/> picked up by car | <input type="checkbox"/> I have a car parked there |
| <input type="checkbox"/> other _____ | |

6. What city is your final destination in? _____

7. What is the main purpose of your travel right now (you may choose more than one):

- | | |
|--|--|
| <input type="checkbox"/> to/from work | <input type="checkbox"/> to/from school |
| <input type="checkbox"/> to/from health care | <input type="checkbox"/> to/from family or friends |
| <input type="checkbox"/> to/from leisure | <input type="checkbox"/> recreation |
| <input type="checkbox"/> to/from shopping | <input type="checkbox"/> other _____ |

8. During a typical week, how many days do you ride this bus/route:

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> 6 days/week | <input type="checkbox"/> 5 days/week |
| <input type="checkbox"/> 4 days/week | <input type="checkbox"/> 3 days/week |
| <input type="checkbox"/> 2 days/week | <input type="checkbox"/> 1 day/week |
| <input type="checkbox"/> Less than 1 day per week | |

9. If you were not riding this bus for this trip today, you would have:

- | | |
|--|---|
| <input type="checkbox"/> driven your own car | <input type="checkbox"/> carpoled |
| <input type="checkbox"/> bicycled | <input type="checkbox"/> asked someone to drive you |
| <input type="checkbox"/> would not have gone | <input type="checkbox"/> walked |
| <input type="checkbox"/> other _____ | |

10. Have you already taken this survey? Yes No

11. What days and/or times would you like to see added to this bus route (please be specific)?

Route # _____ Date _____

Esta encuesta es voluntaria y anónima. Los resultados se usarán para comunicar la importancia de los servicios de conexión de autobuses del condado. Whatcom Transportation Authority, Skagit Transit e Island Transit valoramos sus comentarios y agradecemos su participación. Le preguntaremos sobre el viaje que está haciendo en este momento, por lo que le pedimos que conteste incluso si ya lo hizo en otra ruta.

1. ¿Cuál es su código postal? _____

2. ¿Dónde tomó este autobús? _____

3. Cómo llegó a la parada del autobús:

- | | |
|--|---|
| <input type="checkbox"/> caminando | <input type="checkbox"/> bicicleta |
| <input type="checkbox"/> autobús | <input type="checkbox"/> tren |
| <input type="checkbox"/> lo dejaron en coche | <input type="checkbox"/> condujo su propio coche y lo estacionó |
| <input type="checkbox"/> otro _____ | |

4. ¿Dónde se bajará de este autobús? _____

5. Cuando se baje este autobús, ¿cómo seguirá a su próximo destino?

- | | |
|--|---|
| <input type="checkbox"/> caminando | <input type="checkbox"/> bicicleta |
| <input type="checkbox"/> otro autobús | <input type="checkbox"/> tren |
| <input type="checkbox"/> lo recogen en coche | <input type="checkbox"/> tiene un coche estacionado ahí |
| <input type="checkbox"/> otro _____ | |

6. ¿Qué ciudad es su destino final? _____

7. ¿Cuál es el propósito principal de su viaje en este momento (puede elegir más de una respuesta):

- | | |
|---|--|
| <input type="checkbox"/> desde/hacia el trabajo | <input type="checkbox"/> desde/hacia la escuela |
| <input type="checkbox"/> desde/hacia un centro de salud | <input type="checkbox"/> desde/hacia visitar a la familia o amigos |
| <input type="checkbox"/> desde/hacia tiempo libre | <input type="checkbox"/> recreación |
| <input type="checkbox"/> desde/hacia las compras | <input type="checkbox"/> otro _____ |

8. Durante una semana normal, cuántos días toma este autobús/ruta:

- | | |
|---|--|
| <input type="checkbox"/> 6 días/semana | <input type="checkbox"/> 5 días/semana |
| <input type="checkbox"/> 4 días/semanas | <input type="checkbox"/> 3 días/semana |
| <input type="checkbox"/> 2 días/semana | <input type="checkbox"/> 1 día/semana |
| <input type="checkbox"/> menos de 1 día a la semana | |

9. Si no hubiera tomado este autobús para el viaje de hoy, usted habría:

- | | |
|---|--|
| <input type="checkbox"/> manejado su propio coche | <input type="checkbox"/> compartido un vehículo |
| <input type="checkbox"/> usado una bicicleta | <input type="checkbox"/> pedido a alguien que lo llevara |
| <input type="checkbox"/> no habría ido | <input type="checkbox"/> caminado |
| <input type="checkbox"/> otro _____ | |

10. ¿Ya ha respondido antes esta encuesta?

- Sí
 No

11. ¿Qué días y/u horarios le gustaría que se añadieran a esta ruta (por favor sea específico)?

Appendix D: Survey Card 411c & 411w

This survey is voluntary and anonymous. The results will be used to communicate the importance of the County Connector bus services. Whatcom Transportation Authority, Skagit Transit and Island Transit value your feedback and thank you for your participation. We are asking you about the trip you are currently taking right now, so we do ask that you fill out the form even if you already did so on another route.

1. What is your zip code? _____

2. Where did you get on this bus? _____

3. How did you get to the bus stop:

- | | |
|---|---|
| <input type="checkbox"/> walk | <input type="checkbox"/> bicycle |
| <input type="checkbox"/> bus | <input type="checkbox"/> train |
| <input type="checkbox"/> dropped off by car | <input type="checkbox"/> drove own car and parked |
| <input type="checkbox"/> other _____ | |

4. Where will you get off this bus? _____

5. When you get off this bus, how will you continue to your next destination?

- | | |
|---|--|
| <input type="checkbox"/> walk | <input type="checkbox"/> bicycle |
| <input type="checkbox"/> other bus | <input type="checkbox"/> train |
| <input type="checkbox"/> picked up by car | <input type="checkbox"/> I have a car parked there |
| <input type="checkbox"/> other _____ | |

6. What city is your final destination in? _____

7. What is the main purpose of your travel right now (you may choose more than one):

- | | |
|--|--|
| <input type="checkbox"/> to/from work | <input type="checkbox"/> to/from school |
| <input type="checkbox"/> to/from health care | <input type="checkbox"/> to/from family or friends |
| <input type="checkbox"/> to/from leisure | <input type="checkbox"/> recreation |
| <input type="checkbox"/> to/from shopping | <input type="checkbox"/> other _____ |

8. During a typical week, how many days do you ride this bus/route:

- | | |
|---|--------------------------------------|
| <input type="checkbox"/> 6 days/week | <input type="checkbox"/> 5 days/week |
| <input type="checkbox"/> 4 days/week | <input type="checkbox"/> 3 days/week |
| <input type="checkbox"/> 2 days/week | <input type="checkbox"/> 1 day/week |
| <input type="checkbox"/> Less than 1 day per week | |

9. If you were not riding this bus for this trip today, you would have:

- | | |
|--|---|
| <input type="checkbox"/> driven your own car | <input type="checkbox"/> carpoled |
| <input type="checkbox"/> bicycled | <input type="checkbox"/> asked someone to drive you |
| <input type="checkbox"/> would not have gone | <input type="checkbox"/> walked |
| <input type="checkbox"/> other _____ | |

10. Have you already taken this survey? Yes No

11. We may need to eliminate some of the 411 runs. For your needs, what times are most important for us to continue offering service?

Route # _____ Date _____

Esta encuesta es voluntaria y anónima. Los resultados se usarán para comunicar la importancia de los servicios de conexión de autobuses del condado. Whatcom Transportation Authority, Skagit Transit e Island Transit valoramos sus comentarios y agradecemos su participación. Le preguntaremos sobre el viaje que está haciendo en este momento, por lo que le pedimos que conteste incluso si ya lo hizo en otra ruta.

1. ¿Cuál es su código postal? _____

2. ¿Dónde tomó este autobús? _____

3. Cómo llegó a la parada del autobús:

- | | |
|--|---|
| <input type="checkbox"/> caminando | <input type="checkbox"/> bicicleta |
| <input type="checkbox"/> autobús | <input type="checkbox"/> tren |
| <input type="checkbox"/> lo dejaron en coche | <input type="checkbox"/> condujo su propio coche y lo estacionó |
| <input type="checkbox"/> otro _____ | |

4. ¿Dónde se bajará de este autobús? _____

5. Cuando se baje este autobús, ¿cómo seguirá a su próximo destino?

- | | |
|--|---|
| <input type="checkbox"/> caminando | <input type="checkbox"/> bicicleta |
| <input type="checkbox"/> otro autobús | <input type="checkbox"/> tren |
| <input type="checkbox"/> lo recoger en coche | <input type="checkbox"/> tiene un coche estacionado ahí |
| <input type="checkbox"/> otro _____ | |

6. ¿Qué ciudad es su destino final? _____

7. ¿Cuál es el propósito principal de su viaje en este momento (puede elegir más de una respuesta):

- | | |
|---|--|
| <input type="checkbox"/> desde/hacia el trabajo | <input type="checkbox"/> desde/hacia la escuela |
| <input type="checkbox"/> desde/hacia un centro de salud | <input type="checkbox"/> desde/hacia visitar a la familia o amigos |
| <input type="checkbox"/> desde/hacia tiempo libre | <input type="checkbox"/> recreación |
| <input type="checkbox"/> desde/hacia las compras | <input type="checkbox"/> otro _____ |

8. Durante una semana normal, cuántos días toma este autobús/ruta:

- | | |
|---|--|
| <input type="checkbox"/> 6 días/semana | <input type="checkbox"/> 5 días/semana |
| <input type="checkbox"/> 4 días/semanas | <input type="checkbox"/> 3 días/semana |
| <input type="checkbox"/> 2 días/semana | <input type="checkbox"/> 1 día/semana |
| <input type="checkbox"/> menos de 1 día a la semana | |

9. Si no hubiera tomado este autobús para el viaje de hoy, usted habría:

- | | |
|---|--|
| <input type="checkbox"/> manejado su propio coche | <input type="checkbox"/> compartido un vehículo |
| <input type="checkbox"/> usado una bicicleta | <input type="checkbox"/> pedido a alguien que lo lleve |
| <input type="checkbox"/> no habría ido | <input type="checkbox"/> caminado |
| <input type="checkbox"/> otro _____ | |

10. ¿Ya ha respondido antes esta encuesta?

- Sí
 No

11. Es posible que debamos suprimir algunas de las 411 rutas. De acuerdo con sus necesidades, ¿qué horarios son los más importantes para seguir ofreciendo el servicio?

Ruta # _____ Fecha _____