Alaskan Way Viaduct and Seawall Replacement Project
Moving Forward Projects Construction Traffic Mitigation

Enhanced Transit, Transit Travel Time and Demand Management Performance Report

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WSDOT

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Projects Overview

SUMMARY

To keep people and goods moving during construction of the Moving Forward Projects (primarily the Holgate to King project) of the Alaskan Way Viaduct and Seawall Replacement Project , the Washington State Department of Transportation (WSDOT) provided $31.9 million to King County Metro (Metro) to enhance transit and water taxi service, improve bus monitoring equipment, and to provide transportation demand management services. This investment in transit and demand management services is one part of the state's construction traffic mitigation investments, which total more than $125 million. Other projects include South Spokane Street Widening, State Route 519 improvements, electronic travel time signs and intelligent transportation systems.

These efforts are governed by three contracts - GCA 5820 Enhanced Transit Services, GCA 5864 Expanded Bus Monitoring Project and GCA 5865 South End Transportation Demand Management and Downtown Transportation Demand Management. Performance reports are a requirement of each of these contracts. Therefore, in an effort to consolidate and streamline the reporting process, this single performance report has been developed to address the contractual requirement for all three agreements.

This report is broken down into three sections:

- **Enhanced Transit Services**: This section compares the Spring 2013 service change data to the baseline 2009 data. This section will track the performance of WSDOT supported transit services that were operated during that period to mitigate construction impacts.
- **Transit Travel Time:** This section describes the changes in transit travel times in key corridors that feed into the Seattle Central Business District (CBD) and changes in travel time that occur within the CBD during the Spring 2013 service change.
- **Transportation Demand Management Report.** This section provides the status and impacts of education and outreach programs and marketing of travel options.

These transit and demand management performance reports will be published three times per year during the life of the construction project. The reports will be available approximately two months after each transit service change, which traditionally occur in February, June and September.

In the following chapters you will find baseline data, performance measurement methods and measured performance for state-sponsored transit and demand management services:

- Transit capacity and ridership
- Transit travel times
- Transportation demand management trip reduction
- Budget and expenditures

SERVICES AND ACTIVITIES: FEBRUARY 2013 TO JUNE 2013

Enhanced Transit Service summary

- During this period, ETS trip adds were maintained on Routes 18X, 21X, 56X, 120, 121 and 358. No new trips were added during this period.
- Peak-period service on the West Seattle Water Taxi and Water Taxi Shuttles was maintained through the Winter sailing season, which ended on April 7, 2012
- No new schedule adjustments were implemented during this period
- No flexible hours were used during this period

Ridership summary

- Peak period ridership increased in each of the four ETS pathways, and overall increased by 37% relative to the Spring 2009 baseline.
- Leading the growth in ridership at the corridor level was Pathway J (West Seattle), where WSDOT funded ETS trips on Routes 21X, 56X and 120 during the Spring 2013 service change.
- Among routes that received ETS improvements, Route 358 had the greatest increase in ridership in absolute terms, attracting nearly 1,400 additional rides during the peak and shoulder periods

Travel Time Summary

- Travel times on pathways using SR-99 continue to be impacted by the bottleneck created by the Wosca Detour, especially in the inbound direction during the AM peak. AM inbound travel times on SR-99 have become slightly worse than Fall 2012 conditions
- Lane reductions on Alaskan Way surface street and Elliott Ave have increased travel time on some pathways due to traffic diversion; Ballard pathways have shown the highest impact.
- North Portal and Mercer construction have further impacted pathways on Dexter and Westlake Ave, particularly in the inbound direction. Travel times on these pathways are 1 – 2 minutes longer than Fall 2012 conditions.
- Timber bridge replacement on SR-99 south of the West Seattle Bridge is affecting one pathway in South Seattle during peak hours (Pathway I.1)

Transportation Demand Management Summary

Five TDM Tasks have met their contract targets:

- Promotions of Transit and Ridesharing has reduced 13,196 trips, exceeding the reduction target of 1,380 trips.
- Incentives for Transit and Ridesharing has reduced 325 trips, exceeding the reduction target of 236 trips.
- Employer Outreach has reduced 1,228 trips, exceeding the reduction target of 100 trips.
- Carpool Program has reduced 622 trips, exceeding the reduction target of 370 trips.
- Residential Outreach has reduced 451 trips during peak horus, exceeding the reduction target of 390 trips.

EXPENDITURES: SEPTEMBER 2009 – 2ND QUARTER 2013

As of the end of June 2013, Metro has invoiced WSDOT $23,321,522 ($544,456 under GCA 5864, $21,525,413 under GCA 5820 and $1,251,653 under GCA 5865) of the state's $31.9 million investment in enhanced transit and demand management services.

PERFORMANCE REPORT SCHEDULE

Performance Reports will be produced three times a year, approximately two months after the service change. This reporting schedule is provided in more detail in the chart below.

Performance Report Release Dates

Performance Measure Updates **Submittal Date**	Draft 12-14-09	Volume 1 4-05-10	Volume 2 8-09-10	Volume 3 12-13-10	Volume 4 4-04-11	Volume 5 8-22-11	Volume 6 12-12-11	Volume 7 4-16-12	Volume 8 08-20-12	Volume 9 12-10-12	Volume 10 4-22-13	CURRENT REPORT Volume 11 8-19-13	Volume 12 12-9-13	Volume 13 3-31-14	Volume 14 8-18-14
Reporting Period of Volume Data															
Ridership/ Capacity/ Utilization Baseline		Feb 09 Jun 09 Sep 09													
Travel Time Baseline		Sep 2009*													
Service Plan		As of April 2010	As of Aug 2010	As of Dec 2010	As of April 2011	As of Aug 2011	As of Dec 2011	As of April 2012	As of Aug 2012	As of Dec 2012	As of April 2013	As of Aug 2013	As of Dec 2013	As of April 2014	As of Aug 2014
Travel Time Monitoring, Ridership/ Capacity/ Utilization Data, TDM Measures			Feb 10-Jun 10	Jun 10–Sept 10	Sep 10 – Feb 11	Feb 11 – Jun 11	Jun 11 – Sep 11	Oct 11 – Feb 12	Feb 12 – Jun 12	Jun 12 – Sep 12	Sep 12 – Feb 13	Feb 13 – Jun 13	Jun 13 – Sep 13	Sep 13 – Feb 14	Feb 14 – Jun 14

*The September 2009 travel time data will serve as the travel time baseline, against which, all travel time monitoring activities will be compared

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Enhanced Transit Service Report

INTRODUCTION

The Nisqually earthquake highlighted the structural vulnerability of the State's Alaskan Way Viaduct portion of SR 99 and the region began immediately planning for its reinforcement or replacement. SR 99 serves as a major transportation facility carrying approximately 110,000 vehicles a day to and through downtown Seattle. As the region planned for its replacement it became apparent that a facility of this size could not be planned for and replaced without considering the impacts that the construction phase and final design would have on virtually all major north/south arterials and I-5. Inevitable construction impacts and potential for reduced capacity in the final SR 99 design increased interest in utilization of transit as a more compact travel alternative. In March of 2007, as planning continued on the central waterfront portion of SR 99 and the Viaduct (King St. to Battery Street), Governor Gregoire identified several projects for the Early Safety and Mobility projects, i.e. "Moving Forward Projects". Enhanced transit services were one of the major components of the Moving Forward Projects.

One of the major objectives of the enhanced transit services agreement is to "reduce vehicle travel demand in order to help mitigate construction related mobility impacts on the general public." Metro identified 33 candidate routes that, with additional service could help reduce vehicle travel demand. Greater transit utilization can help maintain public mobility while roadway capacity is constrained. The purpose of this report is to understand and document the usefulness of WSDOT's resources that will be used to maintain and enhance transit service in the SR 99 corridor during the Moving Forward construction projects.

In the Spring of 2009, the baseline against which service in this report will be compared, Metro transit service on these pathways provided an estimated 80,780 unlinked passenger trips daily. A conservative estimate would value these trips to equal approximately 39,000 vehicle trips a day in the SR 99 corridor. This transit service provided mobility to thousands of people per day and removed nearly 39,000 vehicle trips a day reducing delay for all other vehicular traffic in the corridor.

ENHANCED TRANSIT SERVICE REPORT PURPOSE

The Enhanced Transit Service Report provides various data that are useful in understanding the impact of the 30 additional trips funded by WSDOT. The trips funded by WSDOT as part of the February service change were scheduled on routes 21 Express (X), 56X, 120 (part of Pathway J), 121 (part of Pathway I), 18X (part of pathway A) and 358 (part of pathway B). This report compares Spring 2009 baseline performance measures with Spring of 2013 performance measures. As with previous volumes, these transit performance measures are presented in daily totals and by peak, shoulder and midday periods. Ridership data for the past three years, 2010, 2011 and 2012 is also included to show short term trends.

Time of Day and Pathway Group designations are described below:

- **Time of Day Designations**: Time of day designations measure changes in transit supply and use by peak period (6-9am, 3-6pm), shoulder periods (9-10am, 2-3pm, 6-7pm) and midday periods (10am-2pm).
- **Pathway Groups**: The four pathway groups defined below are the transit corridors of emphasis for this contract. A more complete description is available in Travel Time Table 1. System-wide ridership numbers are also shown to give perspective on the relative performance of the four pathway groups when compared to the system as a whole.

  Pathway A - Ballard/Magnolia: 15th Avenue and Elliot Avenue W between NW 85th Street and 1st Avenue and Denny Way, Including routes 15, 15X, 17X 18, 18X, 19, 24 and 33.

Pathway B – Aurora/Fremont: Aurora Avenue, Nickerson Street, Dexter Avenue and Westlake Avenue between NW 85th Street, Ballard Bridge, Fremont and 3rd Avenue/Denny Way, including routes 5, 5X, 16, 17, 26, 26X, 28, 28X and 358.

Pathway I: - SODO: 1st Avenue S, East Marginal Way, and 4th Avenue S between S Michigan and S Jackson Streets, including routes 23, 113, 121, 123, 124, 131, 132, 134.

Pathway J: - West Seattle: Admiral Way, Fauntleroy Way, 35th Avenue SW, Delridge Way and SR 99 between California Avenue, SW Morgan Street, Andover Street and Columbia/Seneca Streets, including routes 21, 21X, 37, 54, 54X, 55, 56, 56X, 57, 116, 120, 125.

RIDERSHIP TRENDS

Transit ridership is influenced by many factors, including amount of service provided, seasonal travel patterns, the cost of driving (fuel/vehicle expenses and time), employment, route design, and construction impacts. The purpose of looking at ridership trend data is to measure and understand these influences. This section includes a brief overview of ridership trends over the last three years.

Three-Year Ridership Trends – Ridership grew steadily between Spring 2011 and Spring 2013. Much of the growth in ridership is attributable to the recovery of the economy. Between Spring 2011 and Spring 2013, unemployment declined from 8.3 percent to 4.9 percent, and overall employment increased by 7.2 percent. During this same period, gas prices decreased by 7 percent.

The Enhanced Transit Service Table 1 below shows that the ridership trends of the Enhanced Transit Service pathways are much better than the system-wide ridership trend. The system-wide and pathway trends provide the context for which we will evaluate the effectiveness of the WSDOT funded construction mitigation.

Enhanced Transit Service Table 1

3 YEAR TRANSIT CORRIDOR WEEKDAY RIDERSHIP TREND FOR SPRING SERVICE CHANGE				
Ridership Group	**2011**	**2012**	**2013**	**% Change 2011-2013**
System-wide Ridership	374,000	384,000	395,000	6%
Total of Pathways	80,350	93,760	113,390	41%
Pathway A – Ballard/Magnolia‡	16,610	17,590	22,370	35%
Pathway B – Aurora Fremont‡	31,570	35,100	44,060	40%
Pathway I – SODO/Georgetown	10,570	13,090	14,380	36%
Pathway J – West Seattle	21,600	27,970	32,580	51%
‡ Pathway A is lower and B is higher than shown in prior volumes because Route 17 trips were incorrectly assigned to pathway A.				

RIDERSHIP CHANGE IN SPRING 2013 COMPARED TO 2009 BASELINE

The Enhanced Transit Service Table 2 below compares the Spring 2013 system-wide and Enhanced Transit Service pathway ridership with the Spring 2009 baseline for average weekday ridership by time of day

Ridership Changes Vary by Time of Day – Evaluating aggregate ridership numbers alone can sometimes hide shifts in ridership that have important planning implications. Ridership analysis by time of day allows you to see which time period has the greatest demand for resources. Employment driven transit service tends to be oriented toward the peak period (6-9 am) and (3-6 pm) while general purpose mobility occurs during all periods of the day. As shown in Table 2, at a system-wide level peak period ridership accounts for about half of daily ridership. This is also true for the total of all pathways. Ridership has increased in every pathway and every time period relative to the baseline.

The system-wide and pathway trends shown in Table 2 provide more context for which we will evaluate the effectiveness of the WSDOT funded construction mitigation.

Enhanced Transit Service Table 2

COMPARISON OF SPRING 2009 BASELINE WEEKDAY RIDERSHIP BY TIME OF DAY AND PATHWAY WITH SPRING 2012 SERVICE CHANGE RIDERSHIP

Ridership Group	Avg. Weekday		Peak Period*		Shoulder Periods		Midday Period	
	2009	2013 (% Change)	2009	2013 (% Change)	2009	2013 (% Change)	2009	2013 (% Change)
System-wide Ridership	375,000	395,000 (6%)	184,000	188,000 (5%)	68,000	69,000 (0%)	79,000	77,000 (-3%)
Total of Pathways†	80,090	109,330 [113,390] (37%)	39,930	55,330 [57,150] (39%)	14,260	18,560 [19,240] (30%)	15,580	20,580 [21,370] (32%)
Pathway A – Ballard/Magnolia‡	16,920	22,370 (32%)	8,930	12,130 (36%)	2,950	3,540 (20%)	3,080	3,680 (19%)
Pathway B – Aurora Fremont‡	31,970	44,060 (38%)	14,880	20,700 (39%)	5,860	8,010 (37%)	6,690	9,090 (36%)
Pathway I – SODO/Georgetown†	8,260	10,320 [14,380] (25%)	4,440	5,770 [7,590] (30%)	1,370	1,610 [2,300] (18%)	1,400	1,670 [2.460] (19%)
Pathway J – West Seattle†	22,940	32,580 (42%)	11,680	16,730 (43%)	4,080	5,390 (32%)	4,410	6,140 (39%)

*Peak Period is 6-9 am and 3-6 pm; Shoulder Period is 9-10 am, 2-3 pm, and 6-7 pm; Midday is 10 am - 2 pm.
†The increase in ridership reported in the brackets is due to the addition of route 124 to Pathway I. Route 124 began operating in Pathway I in September 2009.
‡ †Pathway A is lower and B is higher than shown in the Vol 5 baseline because Route 17 trips were incorrectly assigned to pathway A.

PERFORMANCE OF ENHANCED TRANSIT SERVICE ADDITIONS

Ridership increased during the peak period on all six routes that received Enhanced Transit Service (ETS) funding during the Spring 2013 service change. With the exception of Route 121, ridership also increased during the shoulder periods on routes that received ETS funding. The largest absolute change in peak and shoulder period ridership occurred on Route 358, where frequencies were upgraded from every 15 minutes to every 7-10 minutes. This improvement, in combination with other factors, resulted in an estimated 1,370 additional boardings during peak and shoulder periods. The second largest increase occurred during the peak and shoulder periods on Route 120, where frequencies during these time periods were improved from every 7-15 minutes to every 7-10 minutes, with resulting growth of 1,050 boardings. In total, ridership performance of ETS routes outperformed the system-wide trend by 17 percentage points.

Enhanced Transit Service Table 3

COMPARISON OF RIDERSHIP PERFORMANCE OF SERVICES THAT RECEIVED WSDOT FUNDED ENHANCEMENTS WITH SPRING 2009 BASELINE

Route/Pathway	Avg. Weekday		Peak Period*		Shoulder Periods		Midday Period	
	2009	2013 (% Change)	2009	2013 (% Change)	2009	2013 (% Change)	2009	2013 (% Change)
18X / Pathway A	760	980 (29%)	760	930 (22%)	No Service	50 (N/A)	No Service	No Service
21X / Pathway J	770	1,030 (34%)	740	950 (28%)	30	80 (167%)	No Service	No Service
56X / Pathway J	590	760 (29%)	510	570 (12%)	70	170 (143%)	No Service	No Service
120 / Pathway J	6,850	8,620 (26%)	2,900	3,680 (27%)	1,370	1,640 (20%)	1,600	1,970 (23%)
121 / Pathway I	1,090	1,100 (1%)	730	890 (22%)	210	140 (-33%)	90	No Service
358 / Pathway B	9,900	11,990 (21%)	4,260	5,250 (23%)	1,880	2,260 (20%)	2,240	2,630 (17%)
Enhanced Transit Service Route Total	19,960	24,480 (23%)	9,910	12,270 (24%)	3,560	4,320 (22%)	3,920	4,600 (17%)

*Peak Period is 6-9 am and 3-6 pm; Shoulder Period is 9-10 am, 2-3 pm, and 6-7 pm; Midday is 10 am - 2 pm.
New ETS Routes relative to 2009 baseline: 18X, 120 and 358

TRANSIT CAPACITY

The primary way transit services will mitigate construction impacts is by providing an alternative travel option to driving alone. In order to attract people to transit service, that service must be reliable. In addition, sufficient transit capacity is a prerequisite to establishing transit as a desirable alternative travel option.

Spring 2013 Transit Capacity Compared to Spring 2009 Baseline – The baseline is the scheduled number of seats that are supplied each weekday within a pathway group for Spring 2009. Enhanced Transit Service Table 4 shows the number of seats by time of day for Spring 2013 for the four different pathways compared to the baseline. The pathway trends shown Table 4 are provided for context to help evaluate the effectiveness of WSDOT investments.

Overall, peak period capacity increased between 2009 and 2012. The Spring 2013 service change continued the additional transit capacity added on Route 18X (Pathway A route), Route 358 (Pathway B route), Route 121 (Pathway I route) and Routes 21X, 56X, and 120 (Pathway J routes). However, other significant changes were implemented in all four pathways as part of the Fall 2012 service restructure. These changes affected both the number of trips and the number of seats per trip, the two factors that together determine seating capacity in each corridor. Consequently, capacity increases on individual WSDOT-funded routes may not directly correlate to changes in the pathways containing those routes due to changes to other routes within the pathway.

Enhanced Transit Service Table 4

SPRING 2013 SERVICE CHANGE COMPARISON OF WEEKDAY TRANSIT SEATING CAPACITY BY CORRIDOR AND TIME OF DAY WITH SPRING 2009 BASELINE

Pathway	Peak Period		Shoulder Periods		Midday Period	
	2009	2013 (% Change)	2009	2013 (% Change)	2009	2013 (% Change)
Pathway A – Ballard/Magnolia†	9,160	10,760 (17%)	2,940	3,380 (15%)	3,600	4,060 (13%)
Pathway B – Aurora Fremont†	15,530	16,830 (8%)	5,810	6,500 (12%)	7,640	7,920 (4%)
Pathway I – SODO/Georgetown*	6,190	6,150 [8,430] -1%	1,890	1,900 [2,830] 1%	1,940	1,770 [2,800] -9%
Pathway J – West Seattle‡	15,920	16,600 (4%)	5,610	5,400 (-4%)	7,220	6,340 (-12%)
Total of all Pathways	**46,790**	**50,340 [52,620] (8%)**	**16,260**	**17,180 [18,110] (6%)**	**20,400**	**20,120 [21,120] (-2%)**

*The increase in seats reported in the brackets is due to the addition of route 124 to the pathway. Route 124 began operating in pathway "I" in September 2009.
†Pathway A is slightly lower and B is slightly higher than the capacity shown in the Vol 4 baseline because Route 17 trips were incorrectly assigned to pathway A.
‡Pathway J baseline is larger than the baseline shown for Vol 4 because express routes 118 and 119 were inadvertently excluded from the previous baseline.

Enhanced Transit Service Table 5 compares the actual transit capacity delivered during the Fall 2012 service change to the Fall 2012 enhanced transit service proposal. Larger coaches assigned to service in these corridors

has resulted in Metro providing slightly more capacity than originally proposed. During the Spring 2013 service change WSDOT funds provided 18 percent more peak period transit capacity on routes 18X, 21X, 56X, 120, 121 and 358. As will be shown in the next section, this additional capacity helped to mitigate the impact on transit capacity level of service caused by a 24 percent increase in peak period ridership relative to the Spring 2009 baseline.

Enhanced Transit Service Table 5

COMPARISON OF WSDOT FUNDED TRANSIT CAPACITY WITH METRO FUNDED PEAK PERIOD TRANSIT CAPACITY

	Spring 2013			
Route/Pathway	**Metro Funded Peak Period***	**Actual WSDOT Funded***	**Spring 2013 ETS Proposal†**	**% Increase in Seating Capacity Compared to Metro Peak Period**
18X	690	120	120	17%
21X	690	350	350	51%
56X	490	220	230	45%
120	3,230	480	460	15%
121	1,240	240	230	19%
358	3,770	370	350	10%
Total	10,110	1,780	1,740	18%

*Actual average seats/trip for Spring2013 was as follows: 18X:58, 21X:58, 56X:55, 120:55, 121:59 and 358:61
†ETS Proposal was based on 58 seats/trip

TRANSIT CAPACITY LEVEL OF SERVICE

Transit capacity level of service (LOS) measures how riders perceive crowding and comfort on transit services. The second edition of the Transit Cooperative Research Program's Transit Capacity and Quality of Service Manual describes the importance of transit capacity LOS in the following statement:

> From the passenger's perspective, passenger loads reflect the comfort level of the on-board vehicle portion of a transit trip—both in terms of being able to find a seat and in overall crowding levels within the vehicle. From a transit operator's perspective, a poor LOS may indicate the need to increase service frequency or vehicle size in order to reduce crowding and provide a more comfortable ride for passengers. A poor passenger load LOS indicates that dwell times will be longer for a given passenger boarding and alighting demand at a transit stop and, as a result, travel times and service reliability will be negatively affected.

The Transit Capacity and Quality of Service Manual provides suggested capacity LOS guidelines. This report uses the ratio of passengers to seats, or Load Factor to evaluate the transit capacity LOS on routes in the identified pathways. The level of service thresholds are described in the table below.

Enhanced Transit Service Table 6

TRANSIT CAPACITY AND QUALITY OF SERVICE MANUAL LOAD FACTOR GUIDELINES		
LOS	**Load Factor (passengers/seat)**	**Comments**
A	0.00-0.50	No passenger need sit next to another
B	0.51-0.75	Passengers can choose where to sit
C	0.76-1.00	All passengers can sit
D	1.01-1.25*	Comfortable standee load for design
E	1.26-1.50*	Maximum schedule load
F	>1.50*	Crush load

*Approximate value for comparison, for vehicles designed to have most passengers seated.

Spring 2013 Transit Capacity Compared to Spring 2009 Baseline – Enhanced Transit Service tables 7, and 8 display the number and percent of riders experiencing a transit capacity LOS of C or worse when traveling in the peak direction during the peak period as compared to the Spring 2009 baseline.

Crowding happens when demand pushes the limits of capacity. Changes in crowding reflect a change in the capacity, the demand or both. The 24 percent increase in peak period ridership among routes with WSDOT-funded trips has resulted in a greater number of riders experiencing transit capacity level of service C or worse, despite WSDOT's investment. Overall, there were 870 more AM and 220 more PM peak period riders experiencing transit capacity level of service C or worse than there were in Spring 2009. Relative to Spring 2012, the increase was even more pronounced, with 970 more AM and 920 more PM peak period riders experiencing transit capacity level of service C or worse. The increase in riders experiencing transit capacity level of service C or worse was less pronounced for the routes with WSDOT-funded trips than for the pathways overall, as shown in Tables 9 and 10.

Enhanced Transit Service Table 7

COMPARISON OF SPRING 2013 TRANSIT CAPACITY LOS WITH SPRING 2009 BASELINE								
AM 6:00-9:00 Inbound								
Route/ Pathway	Average Load Factor		# of trips providing a transit capacity LOS of C or worse		% of riders at a transit capacity LOS of C or worse		Est. Number of daily riders at a transit capacity LOS of C or worse	
	2009	**2013**	**2009**	**2013**	**2009**	**2013**	**2009**	**2013**
18X	0.87	1.12	4	6	77%	100%	270	440
21X	0.83	0.83	5	6	87%	83%	340	400
56X	0.70	0.77	3	3	76%	71%	200	190
120	0.76	0.83	6	11	46%	82%	400	900
121	0.47	0.71	0	2	0%	35%	0	120
358	0.73	0.83	9	10	57%	82%	730	760
Total							1,940	2,810

Enhanced Transit Service Table 8

COMPARISON OF SPRING 2012 TRANSIT CAPACITY LOS WITH SPRING 2009 BASELINE								
PM 3:00-6:00 Outbound								
Route/ Pathway	Average Load Factor		# of trips providing a transit capacity LOS of C or worse		% of riders at a transit capacity LOS of C or worse		Est. Number of daily riders at a transit capacity LOS of C or worse	
	2009	**2013**	**2009**	**2013**	**2009**	**2013**	**2009**	**2013**
18X	0.78	0.85	4	6	63%	98%	260	480
21X	0.78	0.75	2	5	47%	71%	160	330
56X	0.68	0.71	2	1	53%	17%	130	50
120	0.77	0.70	9	5	60%	30%	610	430
121	0.68	0.47	2	0	29%	0%	90	0
358	0.80	0.87	15	17	74%	60%	1,140	1,320
Total							2,390	2,610

Enhanced Transit Service tables 9, and 10 display similar information as tables 7 and 8 for all the ETS pathways. In addition they give the number and percent of riders that experience a transit capacity LOS of C or worse for those traveling in off peak periods. The off peak information is included to show that crowding occurs at times outside the peak period. The table also provides the total daily trips and estimated number of riders that experience LOS C or worse. These tables are provided for context to evaluate the effectiveness of WSDOT funded construction mitigation services.

Enhanced Transit Service Table 9

SPRING 2013 SERVICE CHANGE COMPARISON OF INBOUND WEEKDAY PASSENGER LOADS BY CORRIDOR PEAK PERIOD SUMMARY WITH SPRING 2009 BASELINE						
AM 6:00-9:00 Inbound						
Pathway	% of riders at a transit capacity LOS of C or worse		# of trips in period providing a transit capacity LOS of C or worse		Est. Number of daily riders at a transit capacity LOS of C or worse	
	2009	**2013**	**2009**	**2013**	**2009**	**2013**
Pathway A – Ballard/Magnolia	58%	84%	24	41	1,480	3,000
Pathway B – Aurora Fremont	53%	74%	37	57	2,500	4,050
Pathway I – SODO/Georgetown	16%	29%	6	10	270	550
Pathway J – West Seattle	52%	80%	38	58	2,170	3,980
All Pathways	49%	73%	105	166	6,420	11,580
Inbound Trips All Other Times of Day						
	2009	**2013**	**2009**	**2013**	**2009**	**2013**
Pathway A – Ballard/Magnolia	27%	47%	27	35	1,360	2,510
Pathway B – Aurora Fremont	26%	22%	46	51	2,870	3,120
Pathway I – SODO/Georgetown	8%	19%	5	13	210	700
Pathway J – West Seattle	16%	18%	22	22	1,150	1,570
All Pathways	22%	25%	100	121	5,590	7,900
Total Inbound Trips			**205**	**287**	**12,010**	**19,480**

Enhanced Transit Service Table 10

SPRING 2013 SERVICE CHANGE COMPARISON OF OUTBOUND WEEKDAY PASSENGER LOADS BY CORRIDOR PEAK PERIOD SUMMARY WITH SPRING 2009 BASELINE						
PM 3:00 – 6:00 Outbound						
Corridor	% of riders at a transit capacity LOS of C or worse		# of trips in period providing a transit capacity LOS of C or worse		Est. Number of daily riders at a transit capacity LOS of C or worse	
	2009	**2013**	**2009**	**2013**	**2009**	**2013**
Pathway A – Ballard/Magnolia	45%	66%	22	40	1,320	2,850
Pathway B – Aurora Fremont	59%	62%	48	70	3,000	5,010
Pathway I – SODO/Georgetown	40%	29%	12	11	560	670
Pathway J – West Seattle	51%	52%	34	46	2,090	3,480
All Pathways	52%	56%	116	167	6,970	12,010
Outbound Trips All Other Times of Day						
	2009	**2013**	**2009**	**2013**	**2009**	**2013**
Pathway A – Ballard/Magnolia	22%	41%	24	54	1,280	3,730
Pathway B – Aurora Fremont	23%	16%	38	45	2,550	2,620
Pathway I – SODO/Georgetown	6%	21%	3	23	140	1,320
Pathway J – West Seattle	11%	39%	14	67	840	4,830
All Pathways	18%	28%	79	189	4,810	12,510
Total Outbound Trips			**195**	**356**	**11,780**	**24,520**

FLEXIBLE TRANSIT SERVICE

The Enhanced Transit Service contract provides for the use of flexible hours to meet the day to day variations in construction related traffic disruptions. These hours are important for Metro to be able to respond immediately to conditions on the street. In the February 2013 ETS proposal, Metro budgeted 1,300 hours of flexible services to meet these needs. However, no flexible hours were deployed during the course of the February 2013 service change.

WATER TAXI AND SHUTTLE SERVICE

The Winter 2012-2013 sailing season was the second season that WSDOT provided financial support for the West Seattle Water Taxi and Water Taxi shuttle services as part of the Alaskan Way Viaduct and Seawall Replacement Project Moving Forward Projects Construction Traffic Mitigation. For the winter sailing season the Water Taxi and shuttle services operated on a peak oriented schedule from October 29, 2012 to April 7, 2013. The period from February 16th to April 7th, 2013 coincided with Metro's Spring 2013 service change. As shown in Table 12 below, the Water Taxi attracted over 400 rides and provided over 4,000 additional seats each day between West Seattle and Downtown Seattle. Many of the trips on the Water Taxi were made in combination with trips on the Water Taxi shuttle services.

Enhanced Transit Service Table 12

Daily Ridership and Capacity, Water Taxi and Shuttle, Spring 2013						
	Peak Period		**Shoulder Periods**		**TOTAL**	
Route	Rides	Seats	Rides	Seats	Rides	Seats
Water Taxi	350	3,610	60	860	410	4,470
Water Taxi Shuttles	N/A*	N/A*	N/A*	N/A*	180	810

* Trip-level ridership was not available for the Water Taxi Shuttles; only daily totals were available

Transit Travel Time Report

TRAVEL TIME REPORT PURPOSE

As part of the AWV Moving Forward contract, Metro received funding to improve the equipment that monitors bus travel time through the construction corridors. The Transit Travel Time report uses data from this equipment provided by WSDOT and other sources throughout the network. This report summarizes data collected to monitor transit travel times along pathways that are expected to be most heavily impacted by the Moving Forward project of the AWV program.

This report compares the Spring 2013 service change condition to the previous travel time report (Fall 2012) and the baseline condition (Fall 2009). The list below show the dates of when travel time observations were collected for those conditions:

- Fall 2009 service change (baseline condition): September 21, 2009 through October 16, 2009
- Fall 2012 service change condition: January 22, 2013 through February 15, 2013
- Spring 2013 service change condition: April 1, 2013 through April 26, 2013

Travel time data was collected and processed as discussed below:

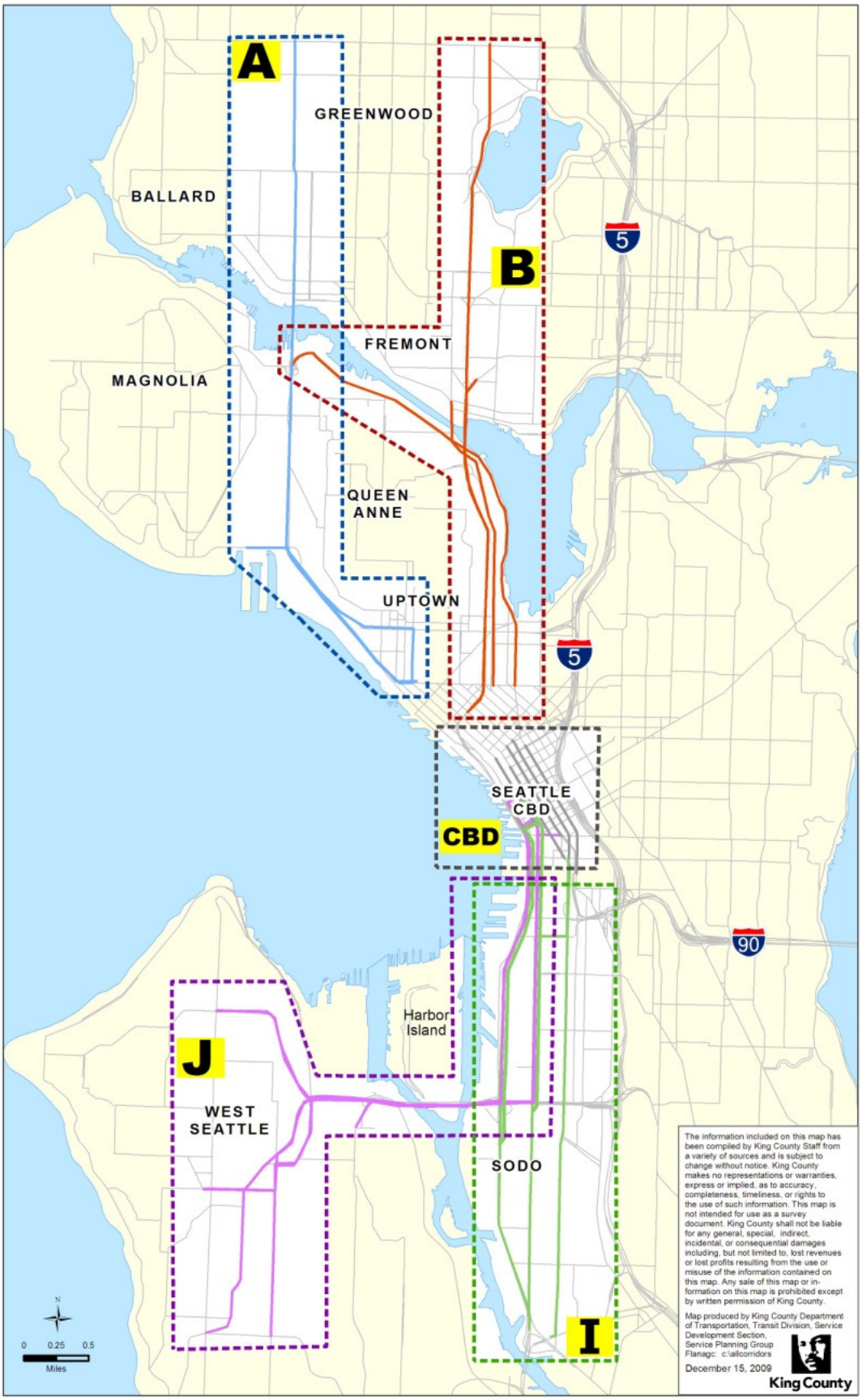
- Transit travel time was measured on key transit corridors feeding into and within the Seattle Central Business District (CBD). The data for this was collected through:
    - Automatic Vehicle Identification (AVI) readers installed at endpoints of key transit corridors
    - Data from Metro's signpost-based Automatic Vehicle Location (AVL) system
    - Logs from the Rapid Ride Transit Signal Priority (TSP) System
- Pathways were defined by the roadway segments on which one or more transit routes operate.
- Pathways were grouped by geographic market area, as shown in the "Pathways and Pathway Groups" map on the next page. Each group consists of several distinct pathways described in the "Description of Pathways and Associated Transit Routes" (Travel Time Table 1).
- Because pathway lengths vary, and travel times will not be comparable across pathways, travel *speeds* are used to assess pathway group performance and travel *times* are used to assess individual pathway performance.

Spring 2013 Service Changes and Impacts to Travel Time Reporting

No significant changes were made to transit service routes during the Spring 2013 service change. Therefore, all pathway definitions remained unchanged since the Fall 2012 report. Many pathway changes were made in Fall 2012 to adjust to the major changes in transit service that were implemented during that period. Refer to Volume 10 for a list of these changes.

Pathways and Pathway Groups

Transit Routes Affected by AWV Project



Travel Time Table 1

Description of Pathways and Associated Transit Routes					
Pathway Group	**Pathway**	**Market Coverage**	**From**	**To**	**Current Transit Routes***
A	A.1	Ballard, Uptown	15th NW/NW 85th	1stAve/Denny	D-Line
	A.2	Ballard	15th NW/NW 85th	1stAve/Denny	15X,[17X,18X]
	A.3	Magnolia	Elliot Ave/Magnolia Br.	1stAve/Denny	19,24,33
B	B.1	North Seattle	Aurora Ave NW/NE 85th	3rdAve/Battery	358
	B.2	North Seattle	Bridge Way/N 38th	3rdAve/Battery	5, [5X,26X,28X]
	B.3	Fremont	Dexter/Westlake/Fremont	Dexter/Denny	26,28
	B.4	South Lake Union	Ballard Br./Nickerson	Denny/Westlake	62
	B.5	South Lake Union	15th NW/Leary Way	Denny/Westlake	40
I	I.1	South Seattle/Burien	1stAve S/E. Marginal (OB) S Alaska/E Marginal (IB)	1stAve/Columbia (OB) 1stAve/Seneca (IB)	121,122, 123
	I.2	South Seattle/Burien	4thAve S/S Michigan	4th/2ndAve/Jackson	131, 132
J	J.1	West Seattle	Alaska Jct	3rd Ave/Seneca	none
	J.2	West Seattle	35thAve SW/SW Morgan	3rd Ave/Seneca	21
	J.3	West Seattle	Alaska Jct.	1stAve/Columbia (OB) 1stAve/Seneca (IB)	C-Line, [21X]
	J.4	West Seattle	California Ave/SW Fauntleroy Way	3rdAve/Yesler	116,118, 119
	J.5	West Seattle/Burien	Delridge Way/Andover	1stAve/Columbia (OB) 1stAve/Seneca (IB)	120,125
	J.7	West Seattle	Admiral Way/California Ave	1stAve/Columbia (OB) 1stAve/Seneca (IB)	56X, 57
CBD	CBD.2	2ndAve	4th Ave/Stewart	2nd/Jackson	Many
	CBD.3	3rdAve	3rdAve/Stewart	3rdAve/Yesler	Many
	CBD.4	4thAve	4thAve/Jackson	4thAve/Stewart	Many
	CBD.5	5thAve	5thAve/Pine	5thAve/Weller	Many
	Columbia	Columbia St	3rd Ave/Seneca	1st Ave/Columbia	Many

*Routes identified with an **X** are express routes. Routes in [BRACKETS] are routes that parallel a significant portion of the pathway, but are not included in the data for that pathway. Because so many routes operate on the CBD pathways they are not all listed here.
Pathways, Endpoints, and Routes shown in *ITALIC* are items changed in this report.

TRAVEL TIME DATA

A summary of performance results are reported on the "Performance by Pathway Group" and "Performance of Pathways with Service Additions" tables below, while detailed travel time charts of the individual pathways are included in Appendix A.

Travel Time Table 2 below shows daily median travel speeds and range of speeds experienced by each pathway group during the am and pm peaks, including a comparison with the baseline condition. The "Median Speed" is the speed where 50 percent of the observed transit speeds are faster and 50 percent of the observed transit speeds are slower than the median speed. The median speed includes all transit trips operating along all of the pathways in each group, in both directions, on weekdays between 5 am and 8 pm. Median speed is reported rather than average speed because the median is less sensitive to unusual events such as bus breakdowns or accidents that could skew the average. This measure gives an overall performance metric for the pathway group, and is a useful aggregate measure to assess whether the speeds of individual pathways in a given group are trending up or down. **It is not, however, appropriate to use the pathway group median speed as an assessment of travel speed for any individual pathway.** In Appendix A, observed travel times are aggregated by hour of day for both directions of each pathway.

The strongest influence in travel time variability is time of day and direction of travel. The "PM Peak Period Hourly Median Range" and "AM Peak Hourly Median Range" are aggregate performance measures for the times of day that traditionally have the most congestion. The PM Peak Range is the range between the median speed for the slowest hour of the slowest pathway and the fastest hour of the fastest pathway between 3 pm and 6 pm; the AM Peak Range is a similar comparison of speeds between 6 am and 9 am. These ranges can be used to understand pathway group performance and assess whether, as a group, speeds are trending up or down during periods when daily travel demand is the greatest.

Travel Time Table 2: Spring 2013, Fall 2012, and Baseline Travel Speeds

Performance by Pathway Group: Spring 2013, Fall 2012, & Baseline Comparison					
Pathway Group	**Area**	**Service Change Period**	**Median Speed [MPH]**	**AM Peak Period* Hourly Median Range [MPH]**	**PM Peak Period* Hourly Median Range [MPH]**
A	Ballard, Interbay	Spring '13	15.9	13.1 – 19.5	13.4 – 16.4
		Fall '12	16.2	13.6 – 20.5	13.5 – 16.7
		Baseline	14.9	12.1 – 23.6	11.4 – 19.0
B	Aurora, Fremont	Spring '13	16.9	10.9 – 22.2	10.8 – 19.0
		Fall '12	16.5	11.4 – 22.2	10.2 – 19.4
		Baseline	18.6	11.0 – 22.7	11.0 – 20.3
I	SODO, Georgetown	Spring '13	19.6	13.7 – 34.3	12.3 – 22.2
		Fall '12	18.8	13.3 – 33.8	12.5 – 23.4
		Baseline	17.7	16.4 – 48.4	12.7 – 21.7
J 1st Ave	West Seattle via 1st Ave S	Spring '13	14.4	12.8 – 19.9	13.1 – 18.0
		Fall '12	14.5	12.7 – 17.8	13.1 – 18.3
		Baseline	15.9	11.9 – 20.7	12.4 – 21.0
J AWV	West Seattle via AWV	Spring '13	30.6	17.0 – 33.1	20.7 – 33.1
		Fall '12	29.5	17.8 – 32.4	20.7 – 35.1
		Baseline	30.1	20.1 – 36.6	22.1 – 33.8
CBD	2nd - 5th Avenues	Spring '13	7.2	5.6 – 10.1	5.0 – 9.9
		Fall '12	7.2	5.7 – 10.3	4.8 – 10.7
		Baseline	7.2	5.9 – 9.9	5.4 – 9.6

* AM peak includes 6 – 9 am and inbound trips only, pm peak includes 3 – 6 pm and outbound trips only, except CBD group includes both directions for am and pm peak ranges.

SPRING 2013 HIGHLIGHTS

During the Spring 2013 reporting period, construction activities in the South Portal area continued to impact transit pathways on the AWV and parallel local streets, but these impacts have generally remained steady since Fall 2012. The Alaskan Way surface street experienced additional long-term lane reductions during Spring 2013, resulting in additional traffic diverted to other routes in the CBD, Sodo, Belltown and Uptown areas.

In the North Portal area, lane reductions began in Spring 2013. The Mercer West widening and North Access projects are closely coordinated, and both projects require lane shifting and reductions during the construction periods for the civil improvements and utility relocations.

More special events occurred in the Sodo area during the Spring 2013 period compared to the Fall 2012 period, resulting in some increased travel time and worse reliability in those areas during afternoon hours.

J Pathways

J Pathways on 1st & 4th Avenue S have shown a slight decrease in median speeds compared to Fall 2012 conditions, likely due to stadium events. J pathways on the AWV have shown a slight improvement in overall median speeds, however travel times in the AM inbound directions have generally become about a minute longer while PM outbound trips have become a minute or less shorter.

B pathways

Pathways B.1 and B.2 in the inbound/southbound direction continue to be impacted by ongoing construction in the vicinity of SR-99 and Mercer area. Although these pathways benefit from the new SB bus lane on Aurora Avenue, they are likely getting delayed crossing Denny Way. Some improvement is shown on these inbound pathways since the previous reporting period. Pathways on Westlake and Dexter (B.3, B.4, and B.5) have shown increased travel times of 1 – 2 minutes during peak hours, particularly in the inbound direction

Additional highlights of changes in travel time and travel speeds observed in Spring 2013 compared to Fall 2012 and baseline conditions are noted below. See Appendix A for details.

- A Pathways overall show reduced median speed and increased travel times. These pathways are likely being impacted by traffic diversion from Alaskan Way and Elliott Ave lane closures.
- Pathway I.1 has shown increased travel time during the AM & PM peak flow directions due to the timber bridge replacement project (south of the West Seattle Bridge). PM outbound trips are operating about one minute longer compared to Fall 2012. AM inbound trips are operating less than a minute longer than Fall 2012 conditions, about 2 - 4 minutes longer compared to baseline conditions.
- Pathway CBD2 continues to show poor reliability, due to impacts from special events, spillover traffic from AWV ramps, traffic diversion from Alaskan Way surface street, and friction from general traffic that occurs in the single bus lane along that corridor.
- Pathway CBD3 has shown consistent travel times and reliability, due to transit priority treatments in place along that corridor. Compared to baseline conditions, travel times are around one minute longer due to conversion from ride-free to pay-on-entry operation in Fall 2012.
- Pathway Columbia has shown slight improvements in speed & reliability during the PM period. This improvement is likely due to riders, operators, and Orca Boarding Assistants becoming more efficient with passenger loading at the busy Columbia & 2nd Avenue bus stop. Bus lanes and queue jump signals allow buses to bypass congestion along this pathway.

SERVICE ADDITIONS TRAVEL TIME

The following is a summary of travel time performance of transit pathways that have received WSDOT funding during this period.

Route 21X [Pathway J.3] – Pathway J.3 shows travel time increases around about one minute during AM/inbound peak flows compared to Fall 2012; other time periods have remained about the same. Pathway J.3 had shown increases in travel time after the beginning of the Wosca Detour, but then showed improvement after implementation of Rapid Ride improvements. Route 21X benefits from a few of the Rapid Ride improvements, such as the AM peak period bus lane on Avalon Way, but does not receive the full complement of C Line Rapid Ride improvements, therefore Route 21X is likely experiencing travel times about 5 - 7 minutes longer than the baseline condition.

Route 56X [Pathway J.7] – Pathway J.7 is a peak-only pathway using the AWV. Performance on this pathway has shown some improvement during the PM peak but has shown an increase of about one minute during the AM peak hour. AM inbound travel times on this pathway are highly variable due to continued use of the Wosca Detour.

Route 121 [Pathway I.1] – Pathway I.1 is a peak-only pathway with limited reverse-peak trips. It has also been impacted significantly by the Wosca detour during the AM peak flow, with added impact this period due to the Timber Bridge replacement project. AM inbound travel times are 2 – 4 minutes greater than baseline conditions.

Route 120 [Pathway J.5] – Pathway J.5 has shown some improvement for the PM peak flow during this reporting period, but AM inbound travel times are still 3 – 5 minutes longer compared to baseline. The reverse-peak PM inbound flow has also been showing steady increases, with trips now running about 1 – 2 minutes longer than baseline conditions.

Route 18X [Pathway A.2] – Pathway A.2, a peak-only pathway using 15th, Elliott, and Western Avenues, has shown slight improvements since Fall 2012, but travel times are still highly variable on this pathway.

Route 358 [Pathway B.1] – Pathway B.1 continues to be impacted in the southbound/inbound direction by construction and lane closures related to the Mercer and North Portal projects, resulting in 3 – 5 minutes additional travel time compared to baseline conditions. Northbound/outbound travel times have shown some improvement since Fall 2012 and are near or better than baseline conditions; bus only lanes on Battery Street have been effective in allowing buses to bypass congestion approaching Denny Way.

Transportation Demand Management Report

TDM Report Purpose

Transportation Demand Management (TDM) projects are designed to improve system efficiency by reducing traffic congestion on SR 99 during the construction of the Moving Forward Projects, primarily S Holgate Street to S King Street. WSDOT is investing $1.7 million in strategic trip reduction projects to complement the Enhanced Transit Service project with incentives, transit subsidies, outreach events and consultations. These projects encourage people to ride the bus, helping to fill seats on the added bus service. The TDM projects also help show people their travel options which include carpooling, vanpooling, teleworking, or flexing their work schedules.

The goal of the overall TDM project is to reduce *4,130 peak round trips each weekday*. The agreement requires that the projects target two areas, downtown Seattle (and impacted surrounding areas) and the south end along the SR 99 corridor. In addition to the WSDOT funded programs, Metro will contribute matching dollars. A description of the various TDM projects follows TDM Table 1 below:

TDM Table 1

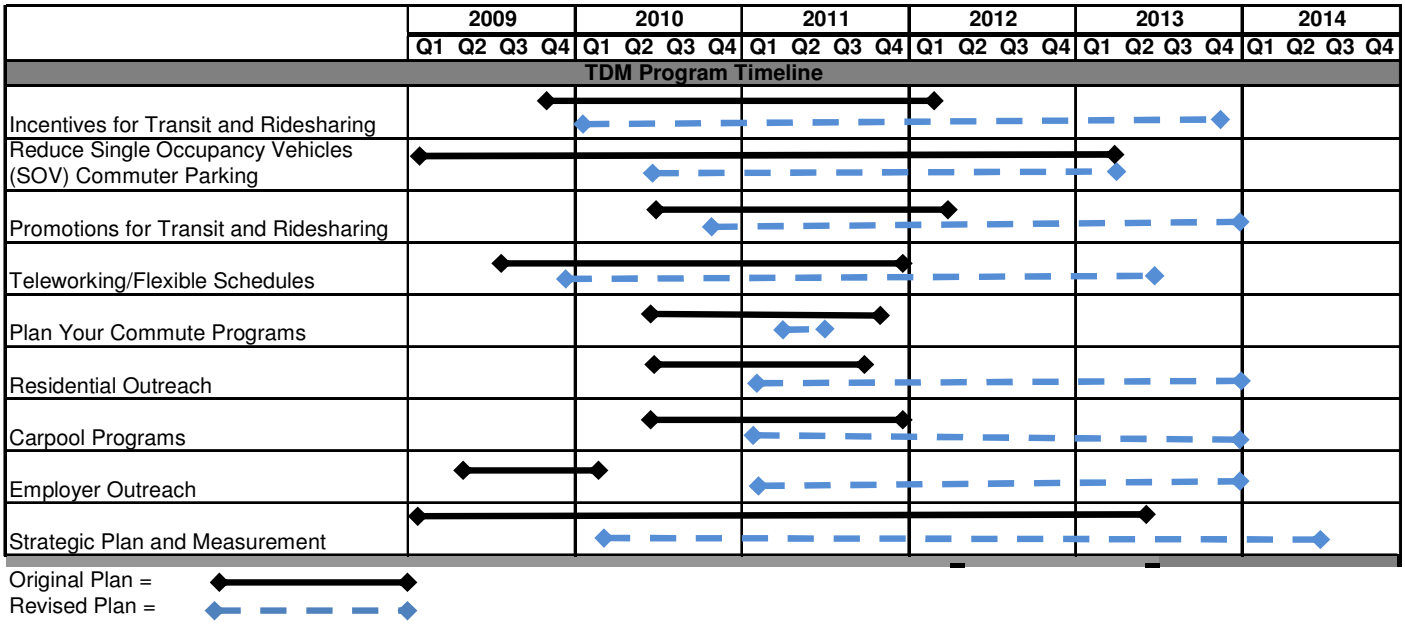
TDM Project Definitions for Downtown Seattle and the South End SR 99 Corridor	
Program	**Description**
Incentives for Transit and Ridesharing $343,520 WSDOT	Provide a minimum of 2,500 transit pass incentives to downtown Seattle employers.
Reduce Single Occupancy Vehicles (SOV) Commuter Parking $225,000 WSDOT	Encourage property owners and drivers to use the City of Seattle's electronic parking guidance system to convert 2,000 long term commuter parking stalls to short-term parking through marketing and incentives.
Promotions for Transit and Ridesharing $362,000 WSDOT	Promote new transit services and all rideshare programs to a minimum of 165,000 households and/or employees.
Teleworking/Flexible Schedules $140,000 WSDOT	Develop telework and flexible schedule plans with a minimum of 15 downtown Seattle companies with the help of a telework consultant. Consultant will also conduct a feasibility study for a telework center in West Seattle.
Plan Your Commute Programs $81,480 WSDOT	Provide one-on-one consultations about commute options with Plan Your Commute Events. Information and free bus ride tickets are usually given to participants.
Residential Outreach $300,000 WSDOT	Conduct residential outreach targeted to neighborhoods potentially affected by construction. Outreach will encourage residents to ride the bus, carpool, bicycle, walk or eliminate trips.
Carpool Programs $105,000 WSDOT	Offer 2,000 incentives to new carpoolers in the SODO/Duwamish and West Seattle areas.

Employer Outreach **$100,000 WSDOT**	Offer transit passes or subsidies to smaller employers (not required to participate in commute trip reduction) in SODO/Duwamish and the downtown neighborhoods (Lower Queen Anne, South Lake Union, First Hill, etc.).
Strategic Plan and Measurement **$51,612 WSDOT**	Analyze and report on overall results of transportation demand management efforts
Match **$1,050,000 Metro**	

TDM Program Timeline

Most TDM programs began in early 2011. Teleworking/Flexible Schedules, Reduce SOV Commuter Parking, Promotions for Transit and Ridership, and the Metro-funded Incentives for Transit began in 2010. The program schedule is below:

TDM Table 2



TDM Program Update and Performance

Listed below in TDM Table 3 are the TDM program updates for February 2013 to June 2013**.**

Each TDM task has a trip reduction target set by contract (GCA 5865). At the beginning of the contract, Metro worked with WSDOT and SDOT staff to develop the methodology to measure progress in meeting the trip reduction targets. The factors used to measure progress in the AWV TDM program used past performance and other factors to estimate performance. The mitigation is a collaboration of efforts to encourage people to meet their travel needs without driving alone. All the TDM elements are implemented in an environment where many different actions interact including but not limited to other promotions, changes in bus service, and construction activities. Broader factors like the price of gas, seasonal effects, unemployment, and other economic factors, can also influence a traveler's choice.

Individual tasks often targeted the same employers and travelers with different approaches. Task implementation also had to remain flexible to respond to factors beyond the project including staffing resources, agency policies, data gathering, gas prices or the economy. These factors made it difficult to attribute a trip reduction to a single task. To address this difficulty, King County Metro and WSDOT reviewed and documented changes to task level deliverables,

trip reduction targets, funding allocations and performance measurement methodology. This ensured the task's deliverables, expected performance, and final cost per trip reduced remained aligned. The adjustments outlined do not result in any net changes at the overall agreement level to deliverables, trip reduction targets or budget for the mitigation program.

Most reporting tools have been revised as of this reporting period; revised performance spreadsheets (and data) are available in the appendix for all TDM tasks.

TDM Table 3

TDM Program Update – (February 2013 - June 2013)	
Incentives for Transit and Ridesharing	**Performance:** 325 trips have been reduced, exceeding the revised trip reduction target of 236. **Activities:** Incentives continue to be offered in the Center City for first year Passport purchases. There were 362 incentives/passes distributed from March 2013 to June 2013.
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	**Performance** *(no change)***:** As of program completion in February 2013, 2,063 long-term parking spaces have been reduced, but no trips have been reduced. However, this service period showed a reduction in the number of vehicles parked by 9AM, which are assumed to be commuters, in five of the six reporting facilities. The decrease in parking occupancy is consistent with the 2012 Downtown Seattle Modesplit Survey from Commute Seattle (http://www.commuteseattle.com/2012survey/) showing a decrease from 2010 to 2012 in the number of commuters that drive alone or carpool to work, with increases in those that take transit, walk or bike. SDOT's e-Park system went 'live' fall 2010 during the Great Recession when unemployment was high and fewer people were using long-term parking in downtown. Now the economic recovery is increasing the number of office workers, shoppers and tourists returning to downtown Seattle looking for long-term and short-term parking. Comparing e-Park baseline obtained during the recession to the subsequent data collected during an economic recovery is not a true measurement of this task's performance. A pre-recession baseline of parking data would provide a more complete understanding of the parking trends in downtown Seattle and the effect of this task. Unfortunately garages are reluctant to share additional information that would enable more accurate trip reduction estimates because they consider the information to be proprietary to their business. **Activities:** Work on this task was completed in December 2012.
Promotions for Transit and Ridesharing	**Performance:** The Promotions trip target of 1,380 has been exceeded with 13,196 trips reduced. **Activities:** Community-specific mailers were prepared and mailed to approximately 11,800 households within one quarter mile of the Route 50. This promotion highlighted new opportunities for connections to north-south oriented routes from the Route 50, and offered an ORCA card incentive to help individuals try out the new service. Approximately 10% of targeted households participated in this promotion. Metro also piloted the Luum.com challenge, a new interactive website promoting alternative transportation, to further bolster participation. A new schematic route map was created to more effectively display the connections between Route 50 and other area routes. We are awaiting ORCA data for evaluation of these promotions, which will be detailed in future reports.
Teleworking/Flexible Schedules	**Performance** *(no change)***:** Companies participating in the program have reduced 290 trips as a result of the telework program. This includes 142 trips from two companies that completed a telework/compressed work week survey and the remainder calculated based on available CTR survey data for participants. **Activities**: The Port of Seattle survey was completed, and will be analyzed this summer. Project case studies and the final report were drafted, and the final report will be completed this summer.

Plan Your Commute	**Performance** *(no change)***:** The program has reduced 33 trips. **Activities** *(no change)***:** Work on this task was completed in June 2011, with 83 of the 36 required events held, and more than 15,000 pledges in Rideshare Online, more than exceeding the 1,800 required. Benefits of this task are on-going.
Residential Outreach	**Performance** *(no change)***:** The program has reduced an average of 451 weekday round trips during peak hours daily, 327 trips during non-peak hours and 397 daily trips on weekends. Both the trip reduction and participation targets have been exceeded for this task. **Activities:** The final In Motion project work under this task concluded in December 2012. Future activity will include analysis of ORCA card reload data.
Carpool Program	**Performance:** 622 trips have been reduced through this program, well above the goal of 370. This is a decrease from last period's report of 641 due to a downward adjustment of average ridership per vanpool. **Activities:** Metro is continuing to fund monthly carpool and vanpool incentives through RideshareOnline.com. Metro will support this with a new promotions campaign that focuses on using existing riders to recruit new riders into existing vans. This promotion will launch July 1 and will offer existing vanpool participants a financial incentive for recruiting a rider into any existing Metro vanpool. These incentive funds are not funded by AWV/WSDOT.
Employer Outreach	**Performance:** This program has reduced 1,228 trips. **Activities:** Employer outreach in this period followed up on the outreach conducted for the RapidRide C and D lines in the previous quarter. Staff contacted over 50 employers who indicated interest in learning more about transit and employee commuter benefit programs. Many employers expressed interest in learning more about implementing a pre-tax transit pass benefit for employees. Two employers in the SODO area began Passport contracts during this period.

As of this reporting period, five TDM Tasks have met their contract targets:

- Promotions: target 1,380 trips, total of 13,196 trips reduced to date
- Incentives: target 236 trips, total of 325 trips reduced to date
- Residential Outreach: target 390 trips, total of 451 trips reduced to date
- Employer Outreach: target 100 trips, total of 1,228 trips reduced to date
- Carpool: target 370 trips, total of 622 trips reduced to date

To date, 16,145 trips have been converted, nearly 400% of the 4,130 trips targeted for reduction.

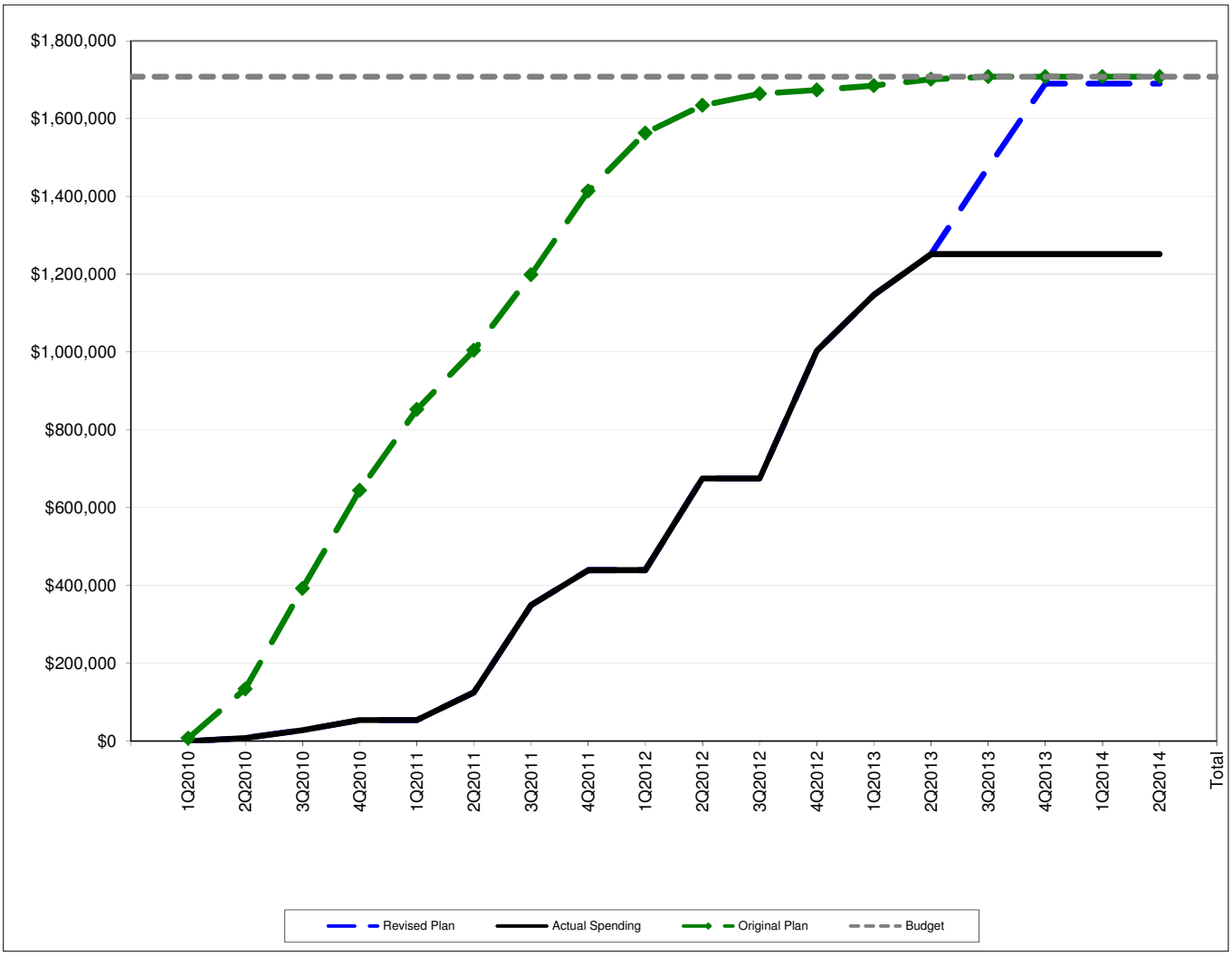
TDM Table 4

Activity	Trip Reduction (round trips reduced daily)		Individual Metrics		
	Target for entire program period	Current performance	Description	Target for entire program period	Current performance
Promotions for Transit and Ridesharing	1,380	13,196	Households / Employees	165,000	194,984
Incentives for Transit or Ridesharing	236	325	Transit Pass Incentives	2,284+	6,531
			Incentives to Garages	5	5
Carpool Program	370	622	Carpool Incentive	2,000	6,089
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	200	0	Net Reduction of Downtown Long-Term Parking Spaces	2,000	2,063
Residential Outreach	390	451	Household Participation Rate	10%	14.2%
Plan Your Commute	744	33	Pledges	1,800	15,000+
			Transit Passes Distributed	N/A	216
			Pre-loaded ORCA Cards Distributed	N/A	331
Teleworking	710	290	Number of Companies Participating	15-20	10
Employer Outreach	100	1,228	Transit Passes Distributed	N/A	725
TOTAL	**4,130**	**16,145**			

TDM BUDGET AND EXPENDITURE – JUNE 2013

The estimated cash flow as of June 2013 by quarter is listed in the table below.

TDM Table 5



Calc Sheet Version 3.5

Task: Promotions for Transit and Ridesharing
Task Lead: Carol Cooper

Target*	
1,380	Trips Reduced*
165,000	Households / Employees

Weekday Ridership, SPR 2009 through FALL 2013																WSDOT Analysis												
	Baseline			Targeted Promotions by Pathway or Route and Service Period												Annualized Trip Reductions												Total Round Trips Reduced
Pathway / Route	SPR 2009	SUM 2009	FALL 2009	SPR 2010	SUM 2010	FALL 2010	SPR 2011	SUM 2011	FALL 2011	SPR 2012	SUM 2012	FALL 2012	SPR 2013	SUM 2013	FALL 2013	SPR 2010	SUM 2010	FALL 2010	SPR 2011	SUM 2011	FALL 2011	SPR 2012	SUM 2012	FALL 2012	SPR 2013	SUM 2013	FALL 2013	SPR 2010 through FALL 2013
Pathway I - SODO / Georgetown	8,260	8,150	7,700	7,540	7,400	7,069	10,571	9,629	8,760			9,356	14,380			0	0	0	400	224	200			313	940			2,077
Pathway J - West Seattle	22,940	22,330	21,860	22,140	21,660	21,374	22,018	26,422	26,970			31,196	32,580			0	0	0	0	620	966			1,764	1,480			4,830
Pathway A - Ballard / Magnolia	16,920	17,090	19,120	18,890	18,610	18,394	19,027	17,732	17,540			21,896				341	230	0	365	97	0			525				1,558
Pathway B - Aurora / Fremont	31,970	31,960	27,120	28,280	29,460	28,529	29,147	34,410	34,380			41,667				0	0	239	0	371	1,372			2,749				4,731
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*Performance of the transit promotions is measured at the transit pathway level which includes routes with enhanced transit services funded by WSDOT. We are unable to distinguish between the effects of the promotion versus the enhanced transit service so their performance is measured jointly. However, not all performance of the enhanced transit service is represented here since measurements are only shown for periods when promotions were implemented. Additionally in fall 2012 a major Metro investment funded the launch of RapidRide, frequent all-day transit services, in pathways A and J. The RapidRide services were promoted as part of the Alaskan Way Viaduct transit promotions task.

Total **13,196**

There is no established trip reduction target to measure against for the WSDOT funded enhanced transit services or Metro's RapidRide investments.

Adjustements were made to the Spring 2009 and Summer 2009 baseline data for Pathways A, B and J. Pathway A baseline is slightly lower and B is slightly higher because 17 express trips were incorrectly assigned to pathway A. Pathway J ridership is larger because express routes 118 and 119 were inadvertently excluded from the previous baseline.

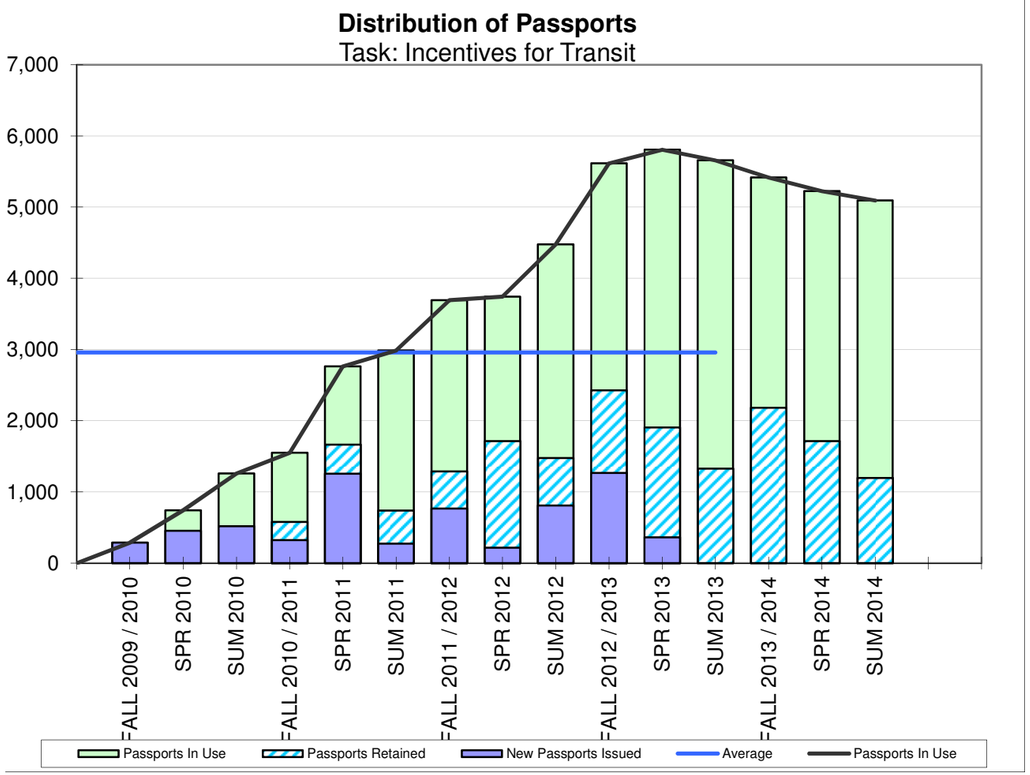
$$Annualized\ Trips\ Reduced = \frac{(Average\ Daily\ Ridership\ in\ Service\ Period\ -\ Baseline\ Daily\ Ridership)}{2\ trips\ per\ day} * \frac{Number\ of\ days\ in\ Service\ Period}{254\ Weekdays\ Per\ Year}$$

	SPR 2011	SUM 2011	FALL 2011	FALL 2012	SPR 2013	XXX 20XX	Total
Households / Employees Reached	75,850	4,084	75,000	28,250	11,800		194,984

Task: Incentives for Transit
Task Lead: Carol Cooper

Target	
236	Trips Reduced
2,284+	Transit Pass Incentives
5	Garage Incentives

ORCA Passport	
Alternate Mode Share (transit and vanpool) for Passport Sites	44.0%
Alternate Mode Share for Non-Passport Sites	33.0%
Retention of Newly Distributed Passports	90.0%



	Service Period	Garage Incentives	New Passports Issued	Passports Expiring	Passports Retained	Passports In Use	Average Passports In Use
Program Period	FALL 2009 / 2010		288			288	2,957
	SPR 2010		453			741	
	SUM 2010		518			1,259	
	FALL 2010 / 2011		321	288	259	1,551	
	SPR 2011		1,257	453	408	2,763	
	SUM 2011		274	518	466	2,985	
	FALL 2011 / 2012	5	765	580	522	3,692	
	SPR 2012		216	1,665	1,498	3,742	
	SUM 2012		810	740	666	4,478	
	FALL 2012 / 2013		1,267	1,287	1,158	5,616	
	SPR 2013		362	1,714	1,543	5,806	
	SUM 2013			1,476	1,329	5,659	
Post Program Period	FALL 2013 / 2014			2,425	2,183	5,416	5,266
	SPR 2014			1,905	1,714	5,226	
	SUM 2014			1,329	1,196	5,093	
	Total	5	6,531				

Average Daily Round Trips Reduced Through Distribution of New Passports

$$= \left(\begin{pmatrix} \text{Alt. Mode Share} \\ \text{for Passport Sites} \\ \text{During Program} \end{pmatrix} - \begin{pmatrix} \text{Alt. Mode Share} \\ \text{for non-Passport Sites} \\ \text{During Program} \end{pmatrix} \right) * \begin{pmatrix} \text{Average \# of Passports} \\ \text{In Use During Program} \end{pmatrix}$$

$$=((44.0\%)-(33.0\%))*(2{,}957)= \quad 325$$

Calc Sheet Version 3.4

Task: Carpool Program
Task Lead: Tom Devlin

Target	
370	Trips Reduced
2,000	Carpool Incentives

Average Ridership Per Vanpool	7.5
Average Number of One-Way Trips Per Vanpool Rider Per Week	8

	Service Period	New Vanpools Formed	Vanpools Disbanded	Current Vanpools	Vanpool Riders	One-Way Vanpool Trips	Reported One-Way Carpool Trips		Commute Days in Service Period	Ridesharing Incentives Distributed
Program Period (Service Change, Year)	SPR 2010			0	0	0			88	
	SUM 2010			0	0	0			77	
	FALL 2010 / 2011			0	0	0			86	
	SPR 2011	33	1	32	240	33,792	45,595		88	1,216
	SUM 2011	42	0	74	555	68,376	65,174		77	733
	FALL 2011 / 2012	74	4	144	1,080	165,888	82,423		96	1,508
	SPR 2012	21	5	160	1,200	149,760	61,014		78	705
	SUM 2012	41	16	185	1,388	170,940	81,829		77	809
	FALL 2012 / 2013	69	12	242	1,815	278,784	124,381		96	918
	SPR 2013	29	15	256	1,920	239,616	82,776		78	200
	SUM 2013			256	1,920	236,544			77	
	FALL 2013 / 2014			256	1,920	294,912			96	
	% of Reported Trips Resulting in Trip Reductions by Mode					88%	50%	**Total**		6,089
	Participants Newness to Alternate Mode by Type*					57%	36%			
	Total Round Trip Reduction(see formula below)					539	83	**622**		

Total Trip Reduction =

$$\left(\frac{\textit{Total Reported One Way Trips by Mode Type}}{\textit{Commute Days During Program Period}}\right) * \left(\frac{1\ \textit{round trip}}{2\ \textit{one way trips}}\right) * \left(\frac{\%\ \textit{of Reported Trips Resulting}}{\textit{in Trip Reductions by Mode Type}}\right) * \left(\frac{\%\ \textit{of Participants Newness to}}{\textit{Alternate Mode by Type 0 -- 6 months}}\right)$$

* Participants newness to alternate mode by type was derived from data King County Metro collected. The vanpool percentage was based on King County Metro's vanpool entry survey (sent to all new vanpool participants).

Task: Reduce Single Occupancy Vehicles (SOV) Commuter Parking
Task Lead: Meghan Shepard (SDOT)

Targets	
2,000	Net Reduction of Available Long-Term Parking Spaces
200	Trips Reduced

	Average Occupancy at 9am Monday - Friday (non-Holidays) by Garage and Service Period								Annualized Trip Reductions*				
Garage	FALL 2010	SPR 2011	SUM 2011	FALL 2011	SPR 2012	SUM 2012	FALL 2012	SPR 2013	FALL 2011	SPR 2012	SUM 2012	FALL 2012	SPR 2013
Garage A	190	210	200	230	272	272	230		(40)	(62)	(72)	0	
Garage B	235	240	216	236	227	199	186		(1)	13	17	50	
Garage C	294	368	300	321	364	369	425		(27)	4	(69)	(104)	
Garage D	244	255	195	185	191	218	175		59	64	(23)	10	
Garage E	334	351	332	333	325	344	245		1	26	(12)	88	
Garage F	190	199	162	171	201	168	152		19	(2)	(6)	19	
Total by Period									11	43	(165)	63	
Average Trip Reduction for All Periods											**0**		

Deliverables	
Net Reduction of Available Long-Term Parking Spaces	2,063

*Parking spaces occupied at garages in downtown Seattle by 9am on weekday non-holidays are presumed to be occupied by commuters using the space for all day parking. A reduction over time of the number of parking spaces used all day for commuters is considered a trip reduction.

Calc Sheet Version 3.6

Task: Telework / Flexible Schedules
Task Lead: Sunny Knott

Target	
710	Trips Reduced
15	Companies Participating

Company	Total Employees	Teleworkers %	Estimated Trip Reduction*
Russell Investments	950	36%	92
Fred Hutchinson Cancer Research Center	3,539	8%	49
Perkins Coie LLP	891	12%	-5
Starbucks Coffee Company	3,627	12%	73
Vulcan Inc.	309	5%	1
Gates Foundation	926	36%	7
Fisher Broadcasting Inc.	409	3%	1
Seattle Housing Authority	214	12%	3
US EPA	584	28%	19
Port of Seattle	613	20%	50
			290*

Example Russell Investments
Total Number of Employees at Company 950

Mode	Number of Reported Trips in a Typical Week: All Respondents 545 respondents		Non-Teleworkers 351 respondents		Teleworkers 194 respondents		Estimated Number of Trips Teleworkers Would Have Taken in a Week Without Telework Option	Resulting Daily Round Trip Reduction
Drive Alone	187	7.4%	138	8.7%	49	5.1%	83	12
Bus	1,322	52.0%	972	61.2%	350	36.6%	585	-79
Train	441	17.3%	242	15.2%	199	20.8%	146	18
Carpool	182	7.2%	131	8.3%	51	5.3%	79	-5
Bicycle	18	0.7%	16	1.0%	2	0.2%	10	-3
Walk	99	3.9%	87	5.5%	12	1.3%	52	-14
Telework	289	11.4%	0	0.0%	289	30.3%	0	101
Compressed Work Week	4	0.2%	1	0.1%	3	0.3%	1	1
Total	2,542		1,587		955			92*

% of Reported Trips Resulting in Trip Reductions by Mode	
Bus	97%
Light Rail / Train	98%
Carpool	50%
Bicycle	100%
Walk	100%
Telework	100%
Compressed Work Week	100%

Estimated Number of Trips Teleworkers Would Have Taken in a Week Without Telework Option

$$= \left(\frac{\text{Mode Share for Non-Teleworkers}}{\text{Mode Share for Teleworkers}}\right) * \left(\frac{\text{\# of Reported Trips in a}}{\text{Typical Week by Teleworkers by Mode}}\right)$$

*Resulting daily round trip reduction equals the sum of

$$= \left(\begin{array}{c}\text{+ for drive alone}\\ \text{mode}\\ \text{- for all higher}\\ \text{efficiency modes}\end{array}\right) * \left(\left(\begin{array}{c}\text{Estimated \# of Trips Teleworkers}\\ \text{Would Have Taken in a Week}\\ \text{Without Telework Option by Mode}\end{array}\right) - \left(\begin{array}{c}\text{\# of Reported Trips}\\ \text{in a Typical Week}\\ \text{by Teleworkers by Mode}\end{array}\right)\right) * \left(\begin{array}{c}\text{\% of Reported Trips}\\ \text{Resulting in Trip Reductions}\\ \text{by Mode}\end{array}\right) * \left(\frac{\text{1 week}}{\text{5 days}}\right) * \left(\frac{\text{Total Employees at Company}}{\text{Total Survey Respondents}}\right)$$

for all modes except if the sum of the bus/train modes is negative in which case the bus/train modes are ignored. Negative summations of the bus/train modes are ignored since transit ridership is likely to be backfilled by new riders.

Task: Plan Your Commute
Task Lead: Carol Cooper

Target	
744	Trips Reduced
216	Transit Pass Incentives
1,800	Pledges

Distribution of $6 Pre-Loaded ORCA Cards

pre-loaded cards distributed to employees	331
total commute days during program	212
total calendar months during program	10.0
program period	5/1/2011 to 2/29/2012
maximum amount considered a transit transfer	$0.50
Card Use Stats	
cards reloaded	43
cards reloaded with monthly pass	6
purse trips	1,859
purse trips per day	9
cards reloaded more than once or with a monthly pass	33

Total Trip Reduction = (E-Purse Trip Reductions) + (Monthly Pass Trip Reductions)

where

$$\text{E-Purse Reductions} = \left(\frac{\text{\# of Transit Purse Transactions} > \text{Maximum Amount Considered a Transit Transfer}}{\text{Eligible Commute Days}}\right) * \left(\frac{\text{1 round trip}}{\text{2 one-way trips}}\right)$$

$$\text{Monthly Pass Trip Reductions} = \frac{(\text{\#of Monthly Pass Reloads}) * \left(\frac{\text{Total Commute Days During Program}}{\text{Total Calendar Months During Program}}\right)}{\text{Eligible Commute Days}}$$

Eligible Commute Days
= Count of Commute Days Between Earliest Date of Card Use and Program End Date

Trip Reductions	
E-Purse	6
monthly pass	3
Total	9

* Monthly passes are assumed to be used for each commute day in a month.

ORCA Passport (Transit Pass) Sales

Passports (transit passes) sold to employers	216
alternate mode share for Passport sites	44.0%
alternate mode share for non-Passport sites	33.0%

ORCA Passport Sales Trip Reductions

$$= \left(\left(\text{Alternate Mode Share for Passport Sites}\right) - \left(\text{Alternate Mode Share for non-Passport Sites}\right)\right) * (\text{Passports Sold})$$

= ((44.0%) - (33.0%)) * (216) = 24

Total Trip Reduction for Plan Your Commute Task

Total Trip Reduction

$$= \left(\text{Trip Reduction from Distribution of Pre-Loaded ORCA Cards}\right) + \left(\text{Trip Reduction from ORCA Passport Sales}\right)$$

= (9) + (24) = **33**

Calc Sheet Version 3.3

Task: Residential Outreach
Task Lead: Carol Cooper

Target	
390	Trips Reduced
10%	Household Participation Rate

254	Commute days per year
111	Non-commute days per year

Neighborhood	Start Date	End Date	Contacts Made	Participants	Program Reporting Period to date (Days)		Average Daily Round Trips Reported Resulting in Trip Reductions During Program Period			Post Program (Days)		Estimated Continued Participation		Annualized Daily Round Trips Reduced		
							M-F (non-Holidays)		Sa, Su, Holidays					M-F (non-Holidays)		Sa, Su, Holidays
			households	people	M-F (non-Holidays)	Sa, Su, Holidays	Commute Hours	Non-Commute Hours	All Day	M-F (non-Holidays)	Sa, Su, Holidays	Very Likely	Likely	Commute Hours	Non-Commute Hours	All Day
Georgetown	6/13/2011	10/8/2011	6,600	200	83	35	23	17	21	171	76	70%	19%	21	16	19
White Center	6/28/2011	10/15/2011	4,500	700	77	33	41	30	48	177	78	59%	35%	39	29	46
South Park	6/27/2011	10/15/2011	3,000	139	78	33	12	9	18	176	78	55%	43%	12	9	18
West Seattle	7/5/2011	11/5/2011	7,000	1,229	88	36	107	79	106	166	75	50%	36%	96	71	96
Ballard	9/1/2012	11/30/2012	15,000	2,053	63	28	202	145	153	191	83	59%	35%	193	139	146
West Seattle 2012	9/10/2012	12/8/2012	10,045	2,237	64	26	94	67	75	190	85	54%	39%	89	64	71
		Total	46,145	6,558								Total		451	327	397
		Participation Rate	14.2%													

Calc Sheet Version 3.4

Task: Carpool Program
Task Lead: Tom Devlin

Target	
370	Trips Reduced
2,000	Carpool Incentives

Average Ridership Per Vanpool	7.5
Average Number of One-Way Trips Per Vanpool Rider Per Week	8

	Service Period	New Vanpools Formed	Vanpools Disbanded	Current Vanpools	Vanpool Riders	One-Way Vanpool Trips	Reported One-Way Carpool Trips		Commute Days in Service Period	Ridesharing Incentives Distributed
Program Period (Service Change, Year)	SPR 2010			0	0	0			88	
	SUM 2010			0	0	0			77	
	FALL 2010 / 2011			0	0	0			86	
	SPR 2011	33	1	32	240	33,792	45,595		88	1,216
	SUM 2011	42	0	74	555	68,376	65,174		77	733
	FALL 2011 / 2012	74	4	144	1,080	165,888	82,423		96	1,508
	SPR 2012	21	5	160	1,200	149,760	61,014		78	705
	SUM 2012	41	16	185	1,388	170,940	81,829		77	809
	FALL 2012 / 2013	69	12	242	1,815	278,784	124,381		96	918
	SPR 2013	29	15	256	1,920	239,616	82,776		78	200
	SUM 2013			256	1,920	236,544			77	
	FALL 2013 / 2014			256	1,920	294,912			96	
	% of Reported Trips Resulting in Trip Reductions by Mode					88%	50%	**Total**		6,089
	Participants Newness to Alternate Mode by Type*					57%	36%			
	Total Round Trip Reduction(see formula below)					539	83	**622**		

Total Trip Reduction =

$$\left(\frac{\textit{Total Reported One Way Trips by Mode Type}}{\textit{Commute Days During Program Period}}\right) * \left(\frac{\textit{1 round trip}}{\textit{2 one way trips}}\right) * \left(\frac{\textit{\% of Reported Trips Resulting}}{\textit{in Trip Reductions by Mode Type}}\right) * \left(\frac{\textit{\% of Participants Newness to}}{\textit{Alternate Mode by Type 0 – 6 months}}\right)$$

* Participants newness to alternate mode by type was derived from data King County Metro collected. The vanpool percentage was based on King County Metro's vanpool entry survey (sent to all new vanpool participants).

Calc Sheet Version 3.4

Target	
100	Trips Reduced

Task: Employer Outreach
Task Lead: Anne Ward-Ryan / Stacie Khalsa

Total Round Trips Reduced

$$\left(\begin{array}{c}\text{Average Daily Round Trips}\\ \text{Reduced Through}\\ \text{Distribution of New Passports}\end{array}\right) + \left(\begin{array}{c}\text{Average Daily Round Trips}\\ \text{Reduced Through}\\ \text{Increased Use of Existing Passports}\end{array}\right) = (26) + (1{,}202) = \quad \mathbf{1{,}228}$$

ORCA Passport	
During Program Implementation	
Alternate Mode Share (transit and vanpool) for Passport Sites	44.0%
Alternate Mode Share for Non-Passport Sites	33.0%
Retention of Newly Distributed Passports	90.0%

Average Daily Round Trips Reduced Through Distribution of New Passports

$$\left(\left(\begin{array}{c}\text{Alt. Mode Share}\\ \text{for Passport Sites}\\ \text{During Program}\end{array}\right) - \left(\begin{array}{c}\text{Alt. Mode Share}\\ \text{for non-Passport Sites}\\ \text{During Program}\end{array}\right)\right) * \left(\begin{array}{c}\text{Average \# of Passports}\\ \text{In Use During Program}\end{array}\right)$$

=((44.0%)-(33.0%))*(236)= 26

Average Daily Round Trips Reduced Through Increased Use of Existing Passports

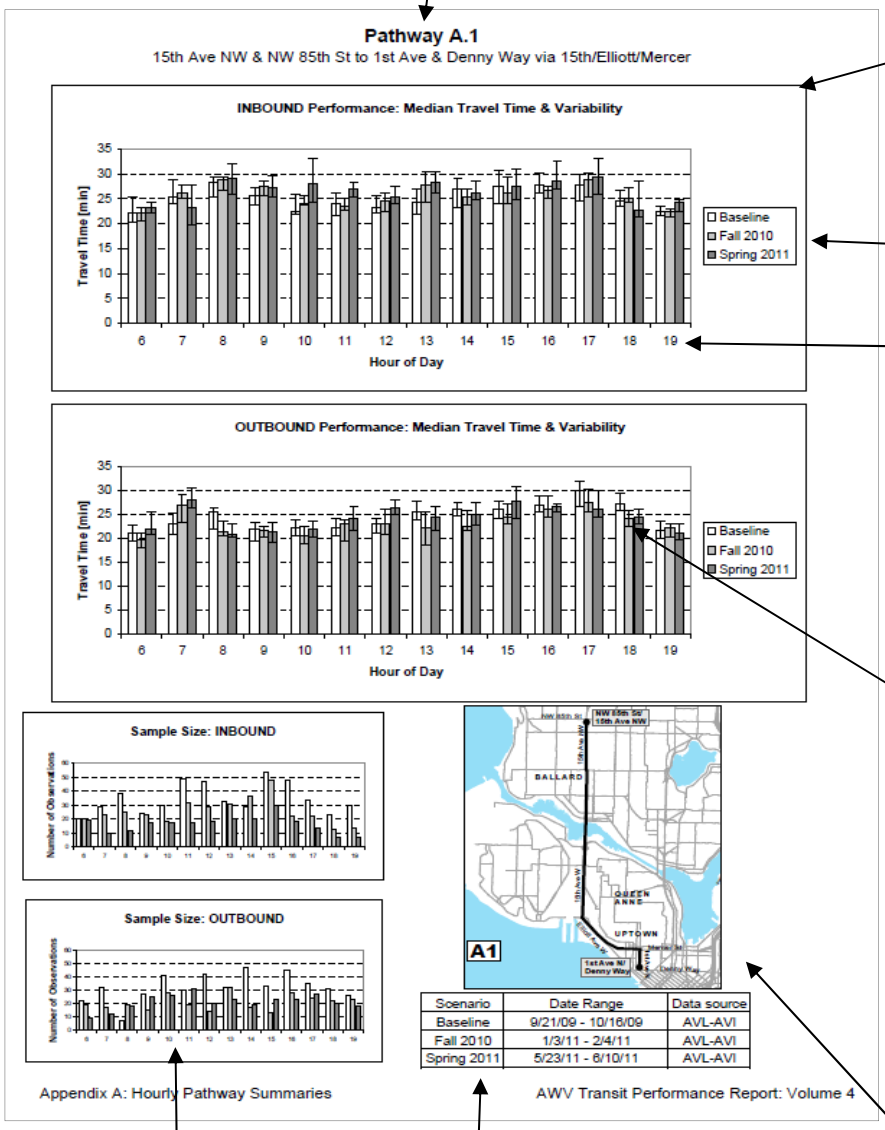
$$\left(\begin{array}{c}\text{Number of}\\ \text{Passports}\\ \text{Before Program}\end{array}\right) * \left(\begin{array}{c}\text{Additional Annual}\\ \text{One-Way Transit Trips}\\ \text{Per Passport During Program}\end{array}\right) * \left(\frac{\text{1 Round Trip}}{\text{2 One-Way Trips}}\right) * \left(\frac{\text{1 Year}}{\text{260 Commute Days}}\right)$$

	Service Period	New Passports Issued	Passports Expiring	Passports Retained	Passports In Use	Average Passports In Use
Program Period	WIN 2009 / 2010				0	
	SPR 2010				0	
	SUM 2010				0	
	WIN 2010 / 2011		0	0	0	
	SPR 2011	60	0	0	60	
	SUM 2011	108	0	0	168	236
	WIN 2011 / 2012	175	0	0	343	
	SPR 2012	115	60	54	452	
	SUM 2012	0	108	97	441	
	WIN 2012 / 2013	88	175	158	512	
	SPR 2013	179	169	152	674	
	SUM 2013		97	87	664	
Post Program Period	WIN 2013 / 2014		246	221	640	
	SPR 2014		331	298	606	618
	SUM 2014		87	79	598	
	Total	725				

Subarea	Number of Passports Before Program	Additional Annual One-Way Transit Trips Per Passport September 2012	Average Daily Round Trips Reduced
Seattle CBD	17,613	11.4	386
Belltown	1,756	0.4	1
Lake Union Queen Anne	15,405	12.0	356
International District	1,847	10.5	37
Seattle Neighborhoods	3,717	59.1	422
Total	40,338		1,202

Interpreting the Hourly Pathway Summaries

Pathway
Each page is a report of one pathway, defined in the title.



Direction
Most pathways have two directions, either inbound/outbound or northbound/southbound. Inbound trips generally head into the Seattle CBD, and outbound trips generally originate in the CBD. Separate charts are provided for the two directions.

Scenario
Long-term changes in transit performance are illustrated by selecting various scenarios for side-by-side comparison.

Time-of-Day
Travel time data is sliced into hour-interval segments for each pathway and direction, and the median travel time is calculated for each hour interval between 5:00 and 19:59 (5:00am - 7:59pm). The hour interval for each trip is determined by the hour of day when the trip passes the end point of the pathway.

Variability Factors
In addition to the median travel time shown in the bar charts, a variability indicator is shown with whiskers extending above and below each bar. The upper whisker shows the 75th percentile travel time measured for the hour interval, and the lower whisker shows the 25th percentile travel time. A larger spread between the 25th and 75th percentile indicates a larger variation in travel times. In other words, 50% of the observed trips fit within this range.

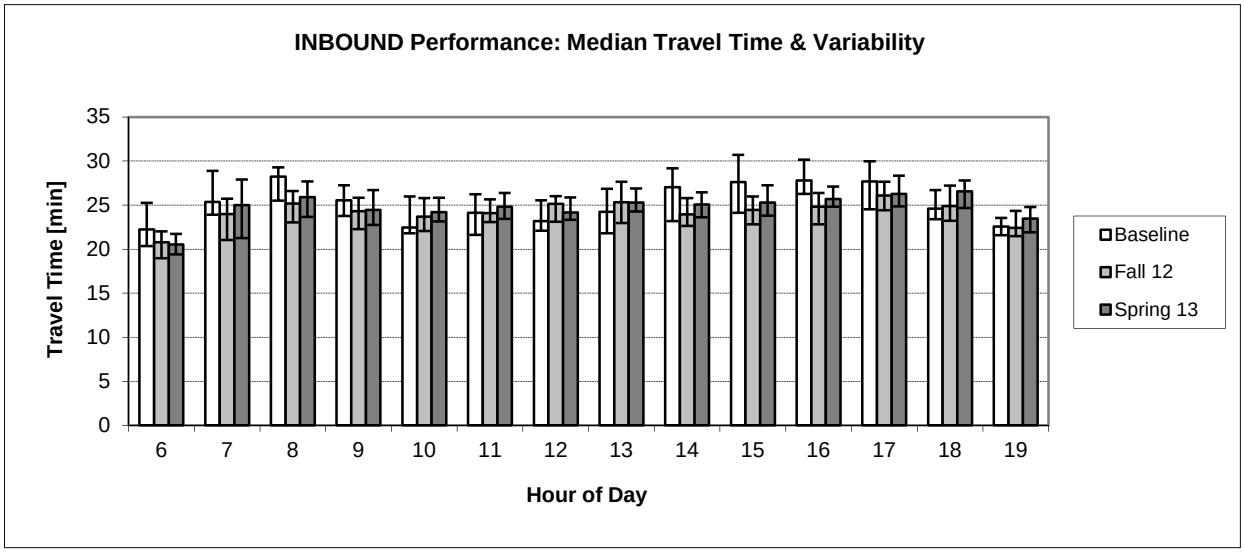
Pathway Map
The map shows the detailed route of the pathway being reported, as well as the start and end points. In some cases, the start or end points are different for inbound/outbound directions, for example for trips using the Seneca and Columbia AWV ramps.

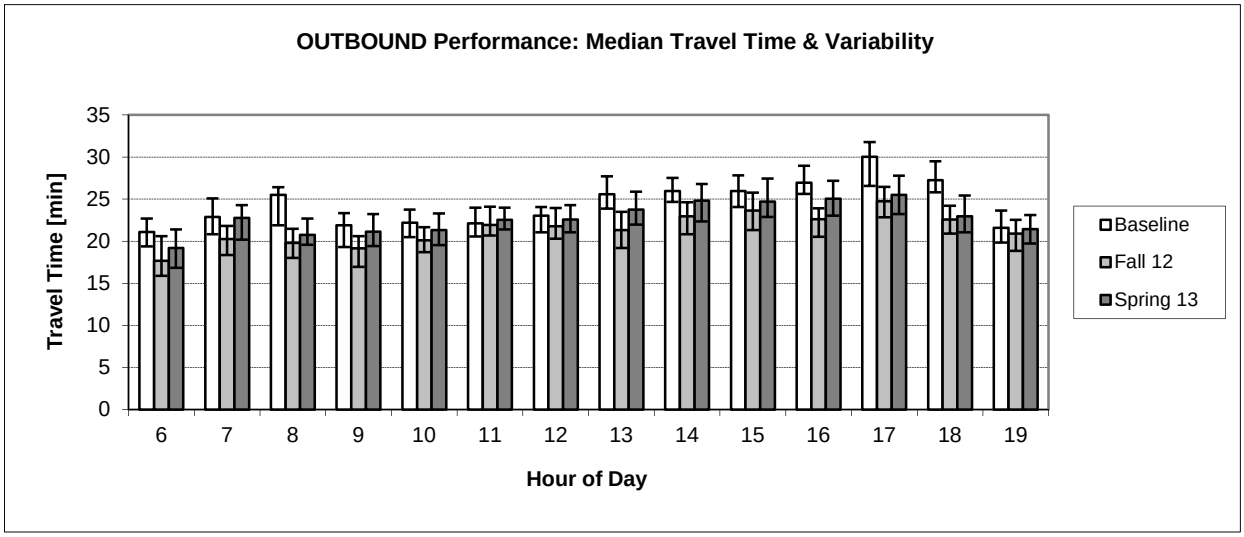
Sample Size Charts
These charts show the number of observations used within each slice of travel time data. These charts provide an indication of the quality and relevancy of the data that is presented in the larger charts.

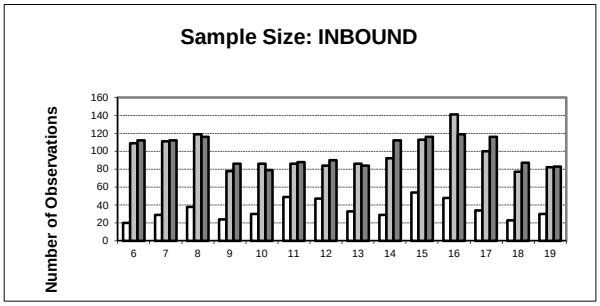
Scenario Descriptions
Details about the scenarios being reported are shown in the table, including the date ranges and data source used (AVL or AVI).

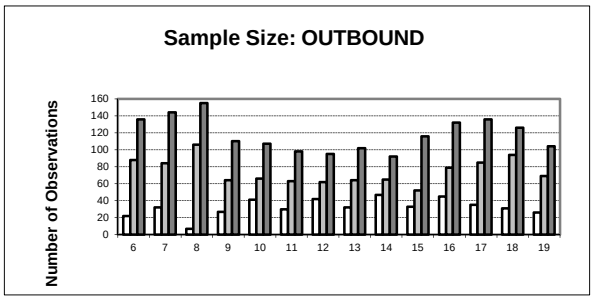
Pathway A.1

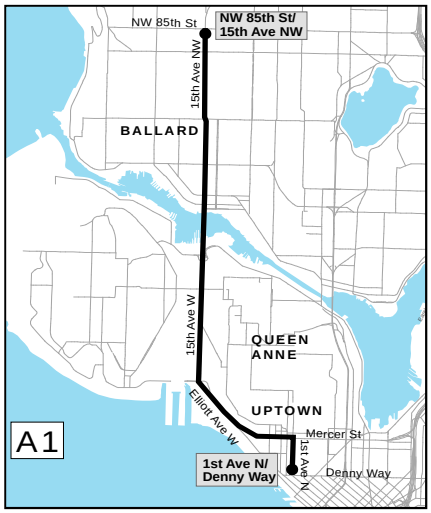
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Mercer







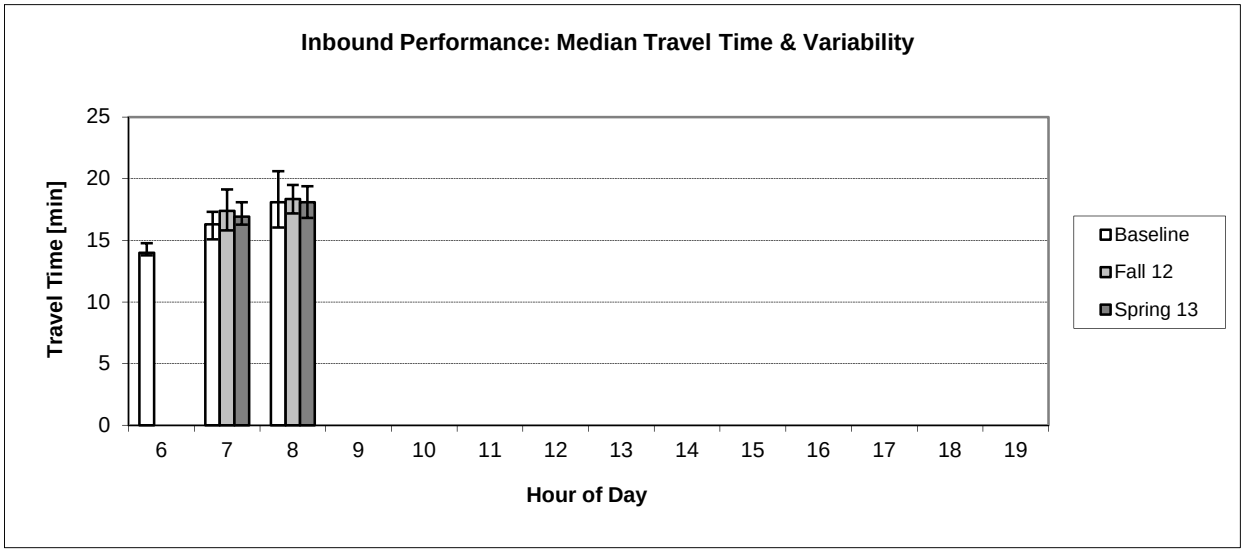


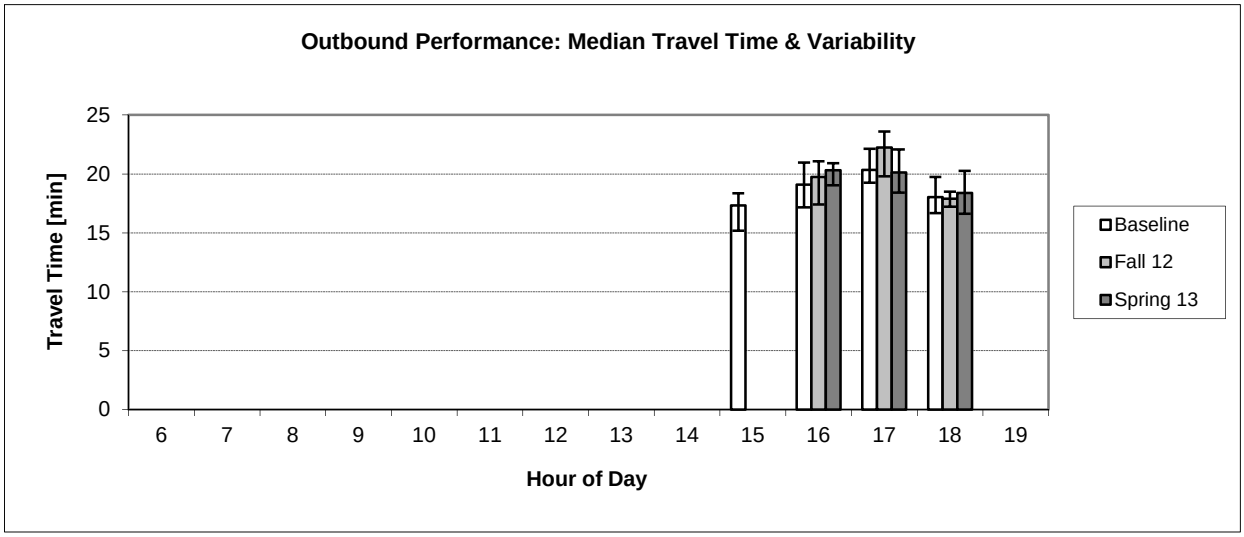


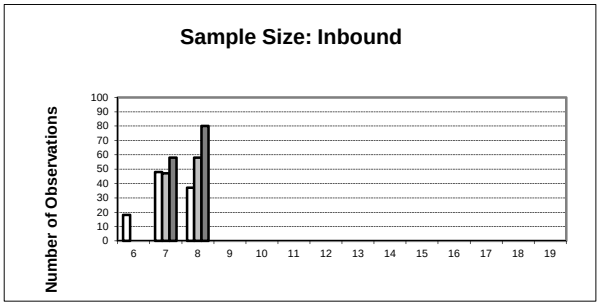
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	TSP
Spring 13	4/01/13 - 4/26/13	TSP

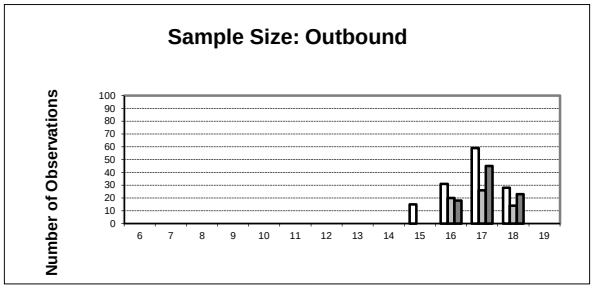
Pathway A.2

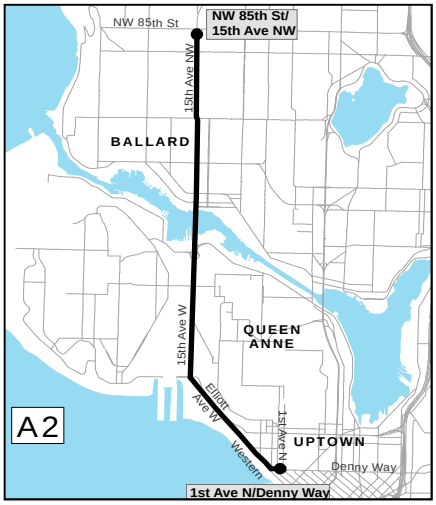
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Western (Peak Only)







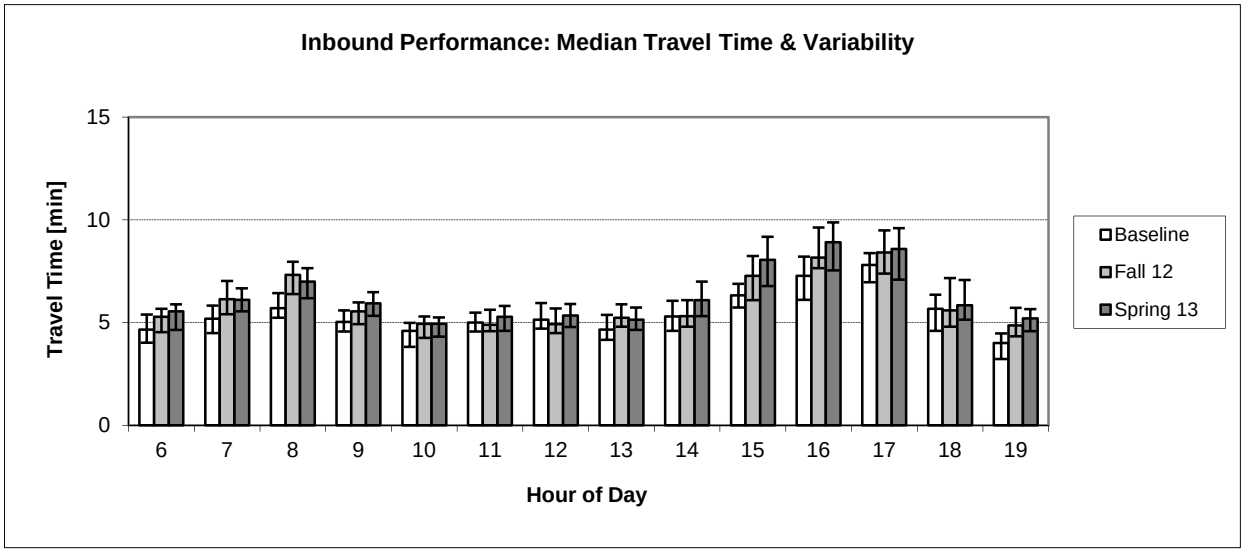


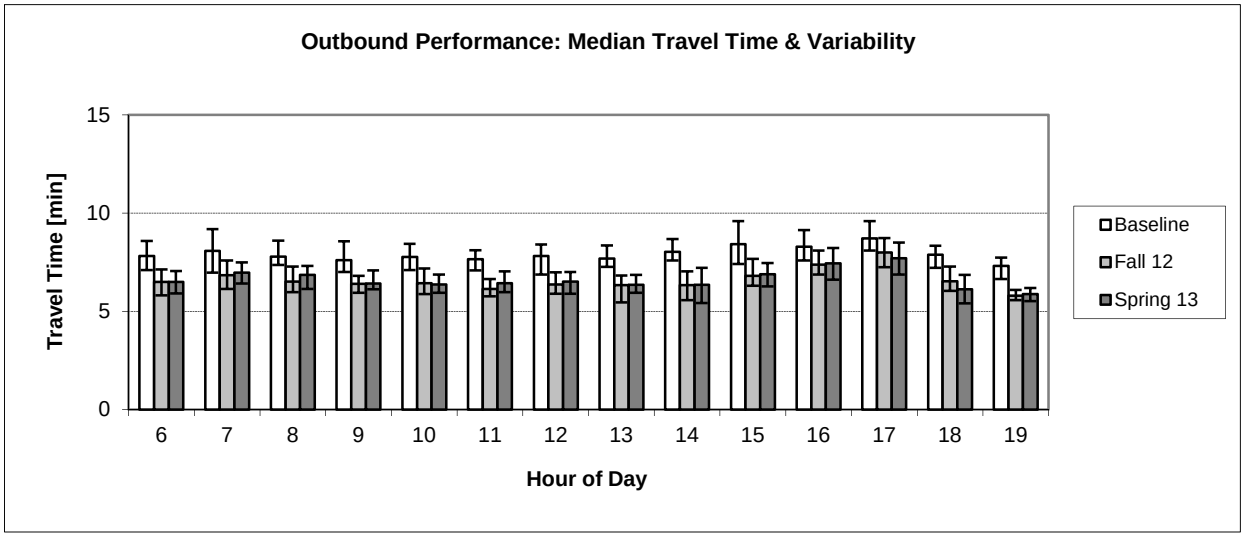


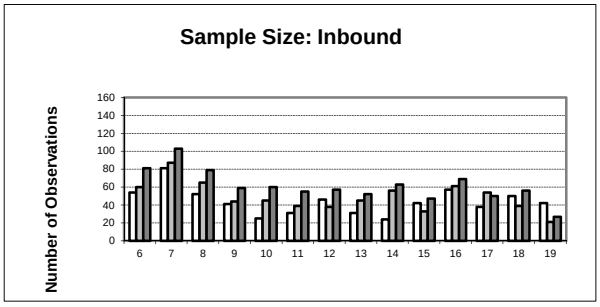
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL-AVI
Spring 13	4/01/13 - 4/26/13	AVL-AVI

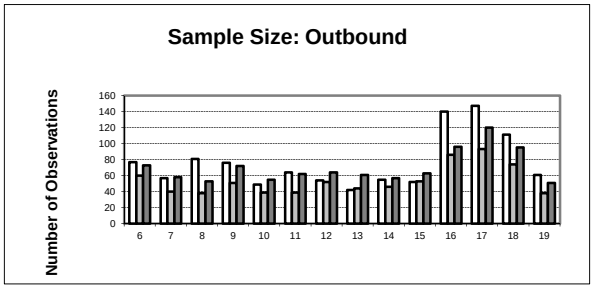
Pathway A.3

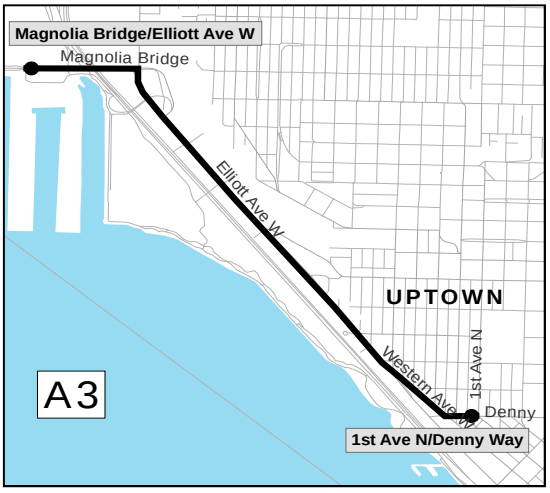
Magnolia Bridge to 1st Ave & Denny Way via Elliott/Western







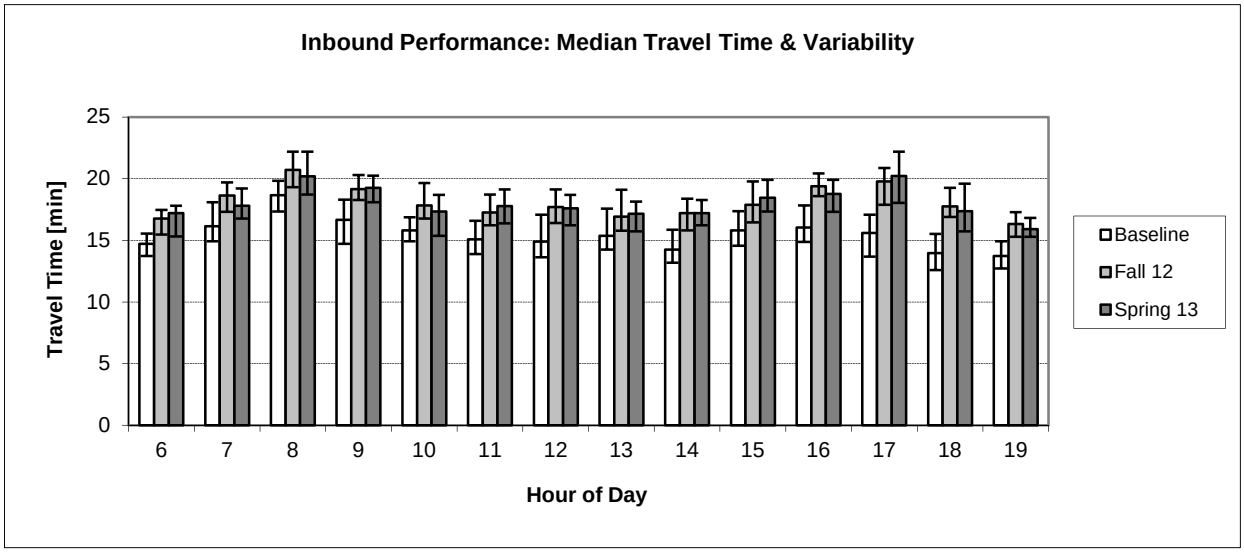


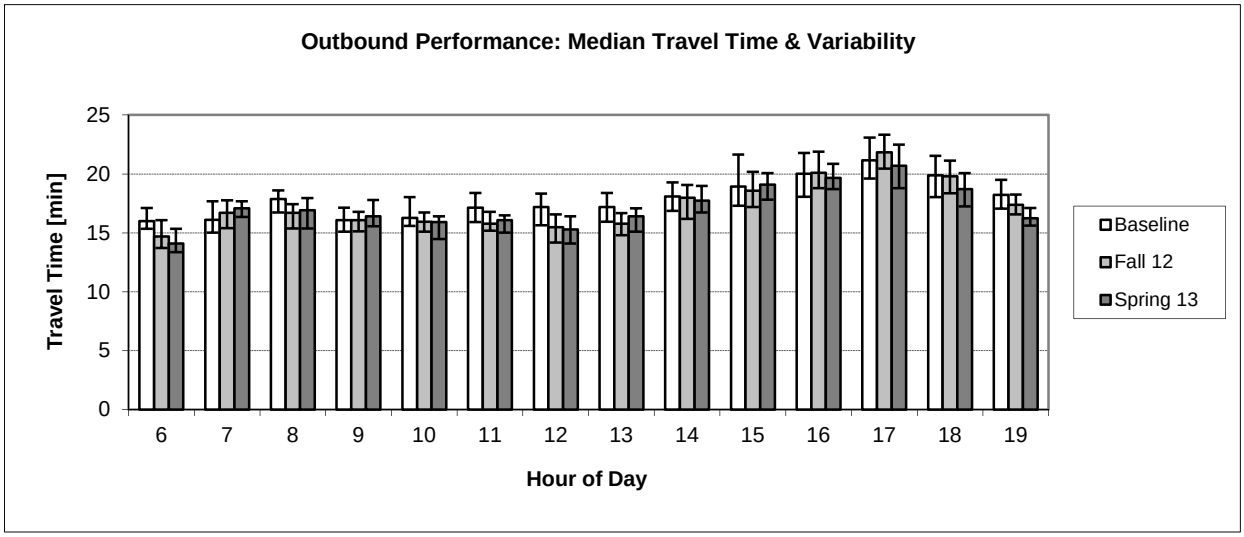


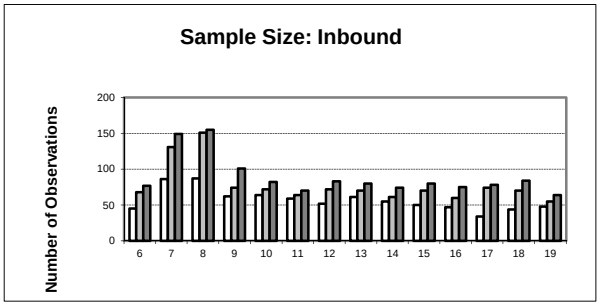
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL-AVI
Spring 13	4/01/13 - 4/26/13	AVL-AVI

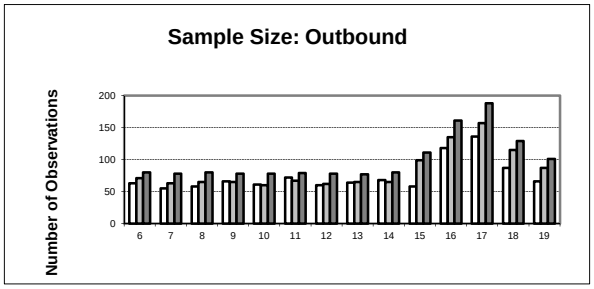
Pathway B.1

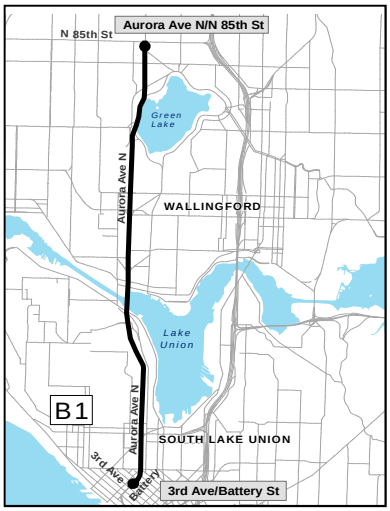
Aurora Ave N & N 85th St to 3rd Ave & Battery St via Aurora Ave







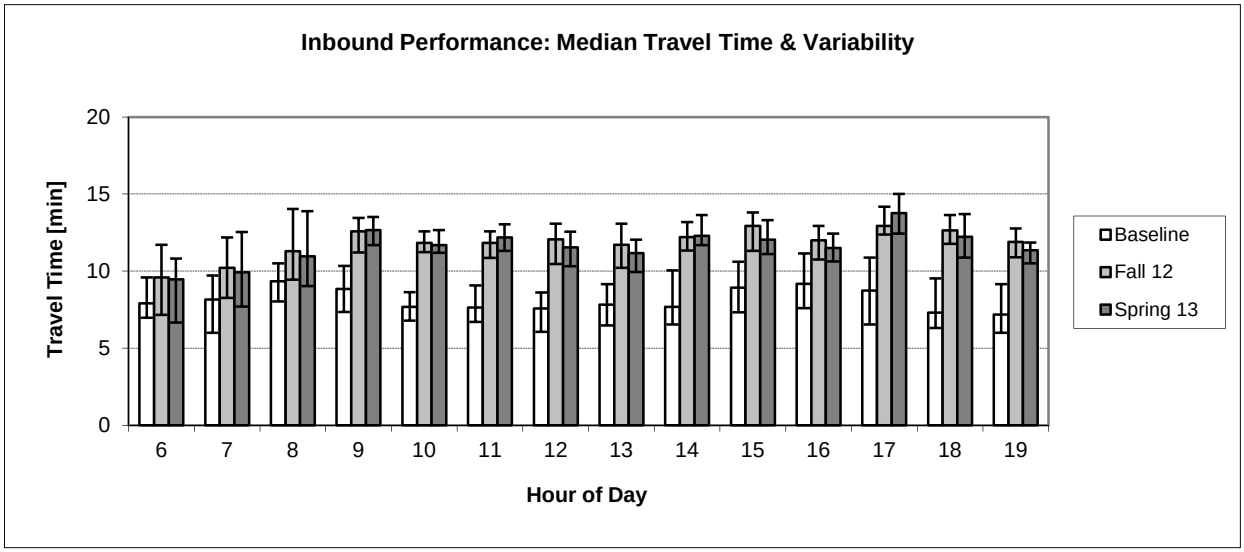


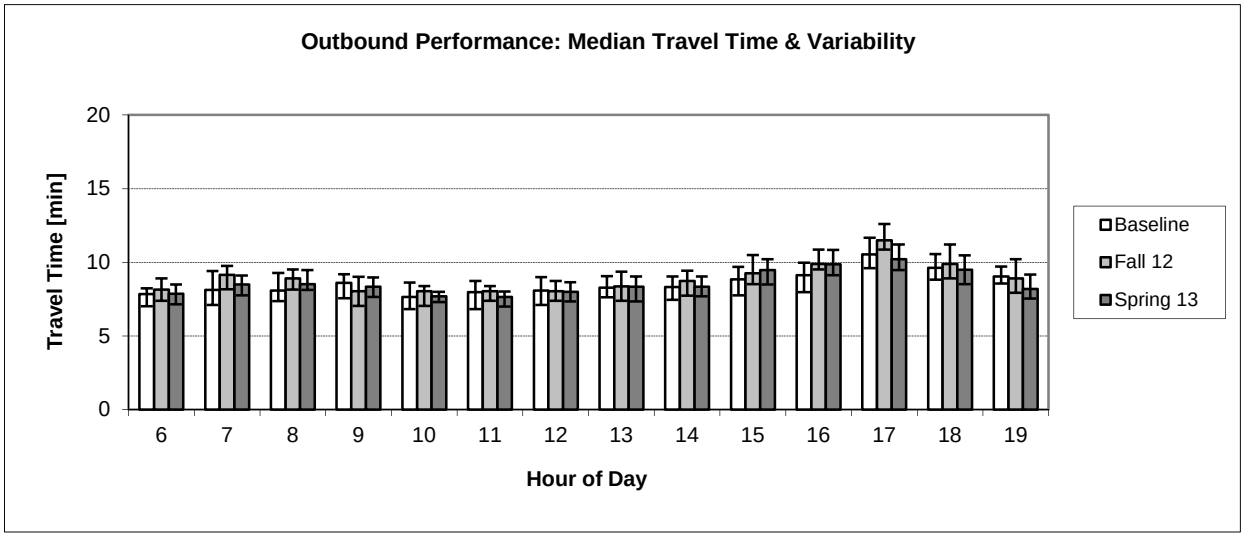


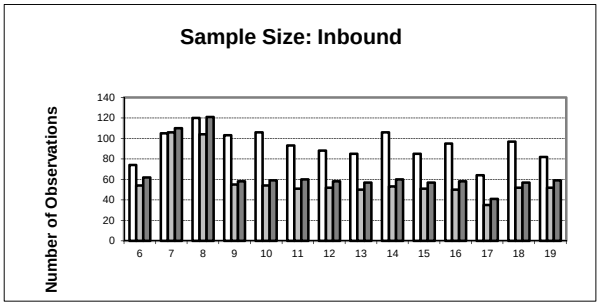
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL
Spring 13	4/01/13 - 4/26/13	AVL

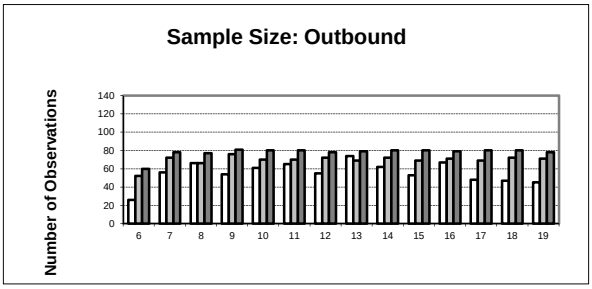
Pathway B.2

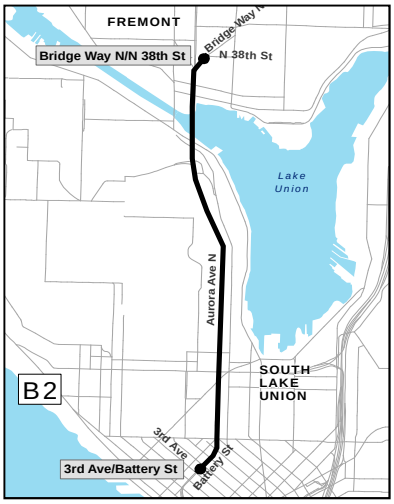
Bridge Way & N 38th St to 3rd Ave & Battery via Aurora Ave







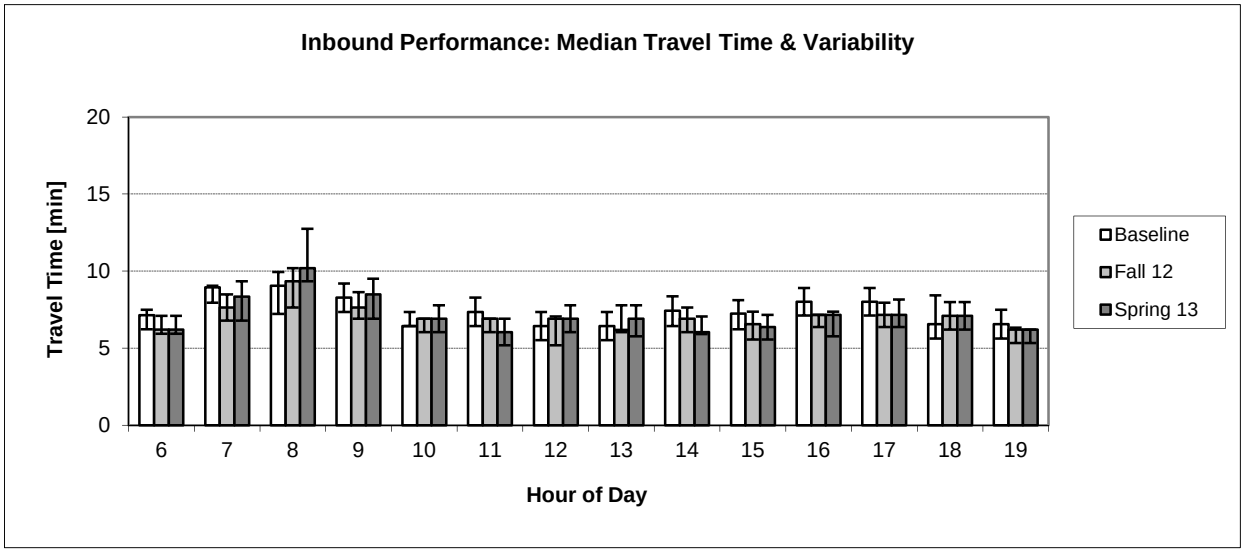


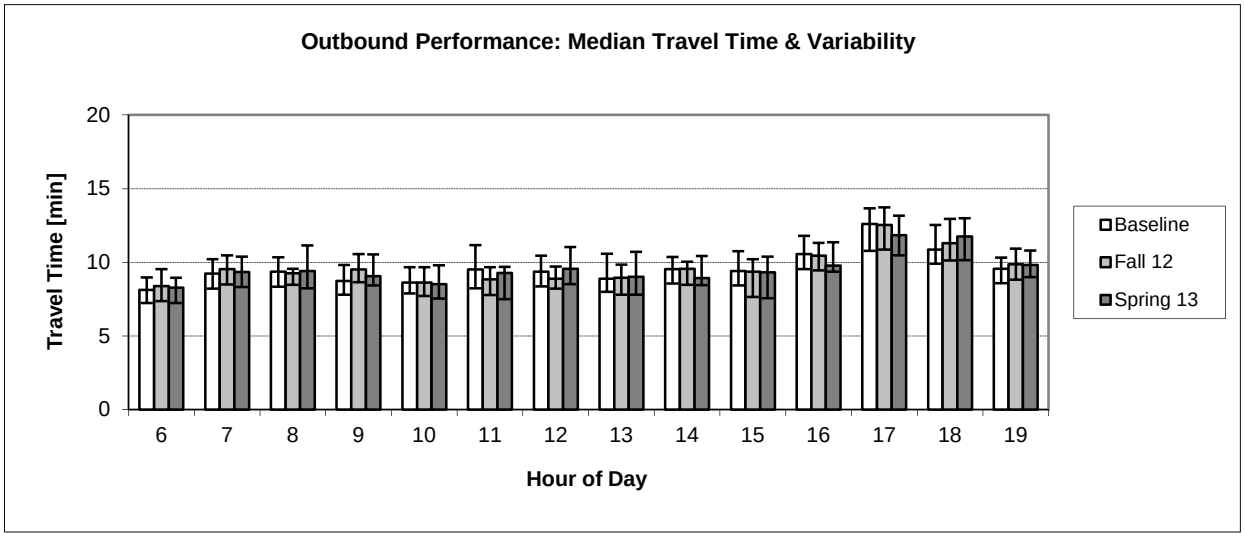


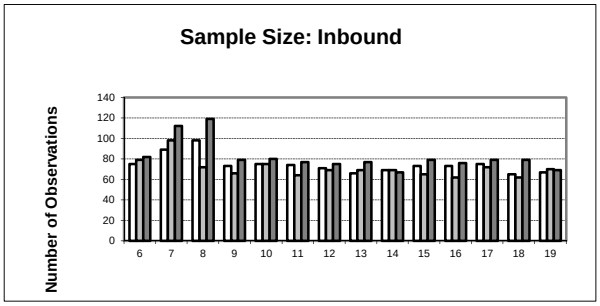
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL
Spring 13	4/01/13 - 4/26/13	AVL

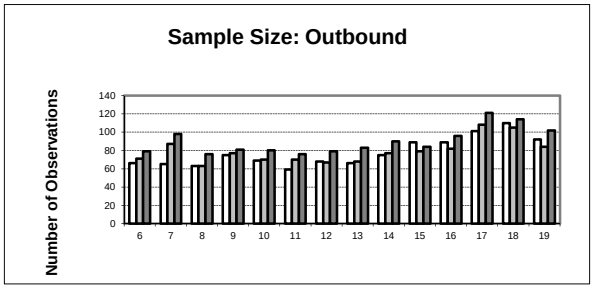
Pathway B.3

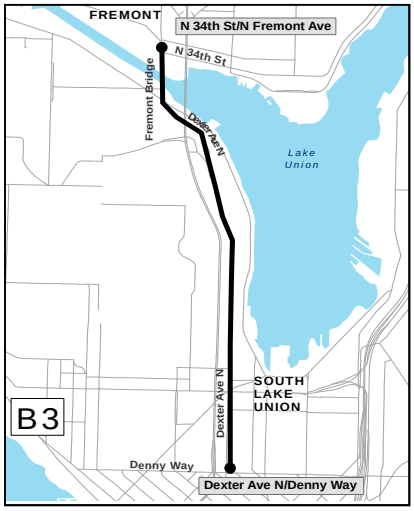
Fremont Ave N & N 34th St to Denny Way & Dexter Ave via Dexter







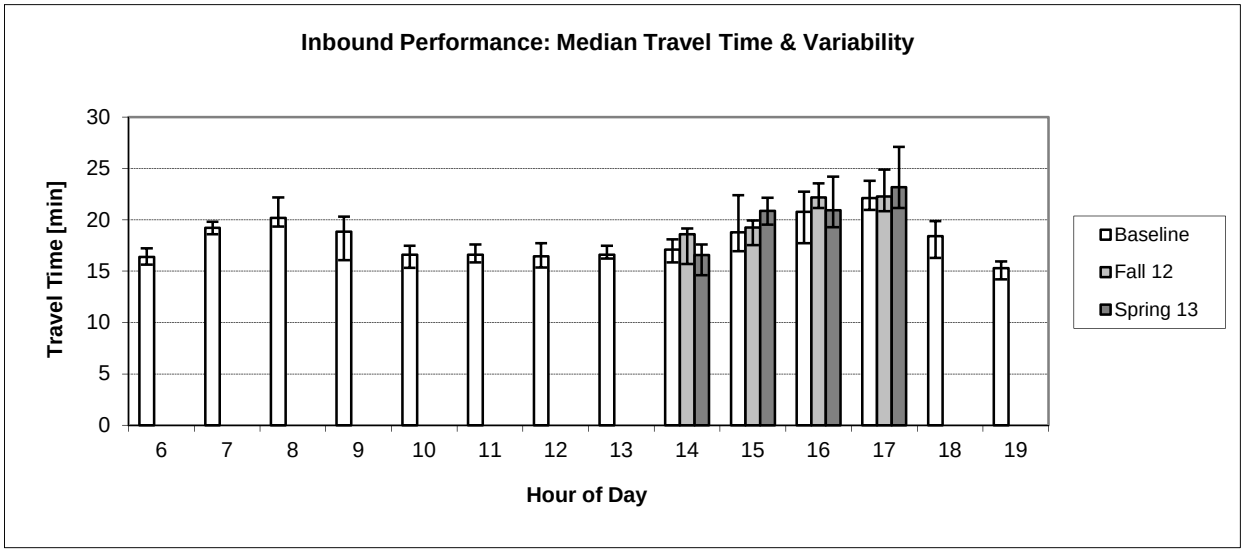


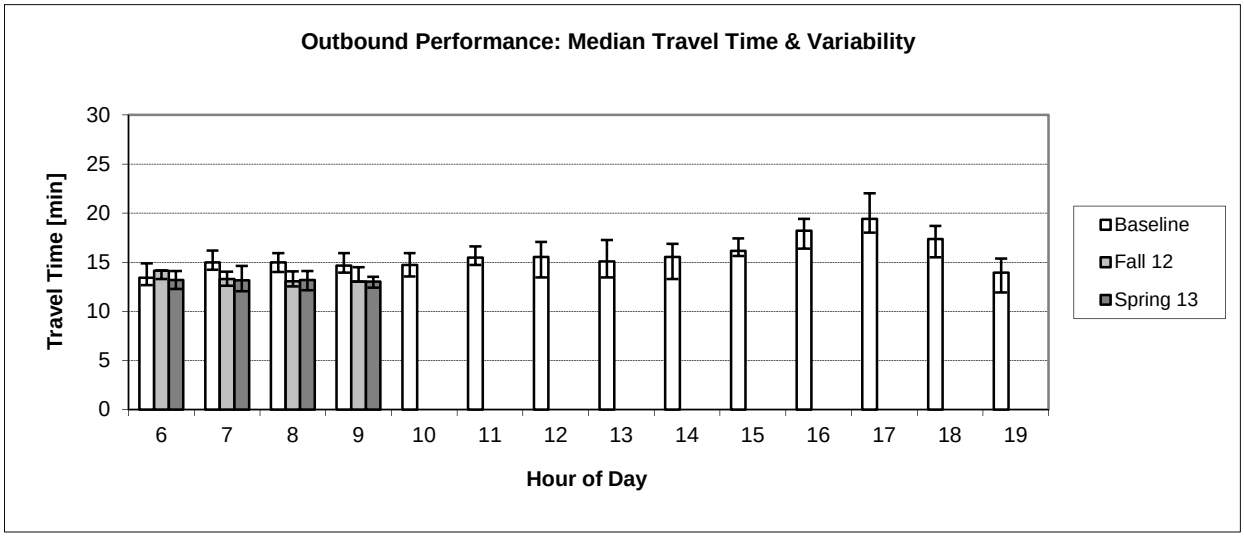


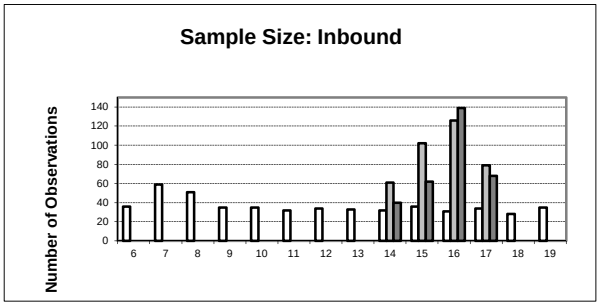
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 12	1/22/13 - 2/15/13	AVL
Spring 13	4/01/13 - 4/26/13	AVL

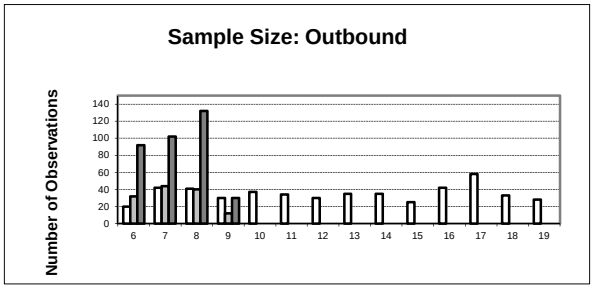
Pathway B.4

Ballard Bridge to Denny Way & Westlake Ave via Nickerson/Westlake





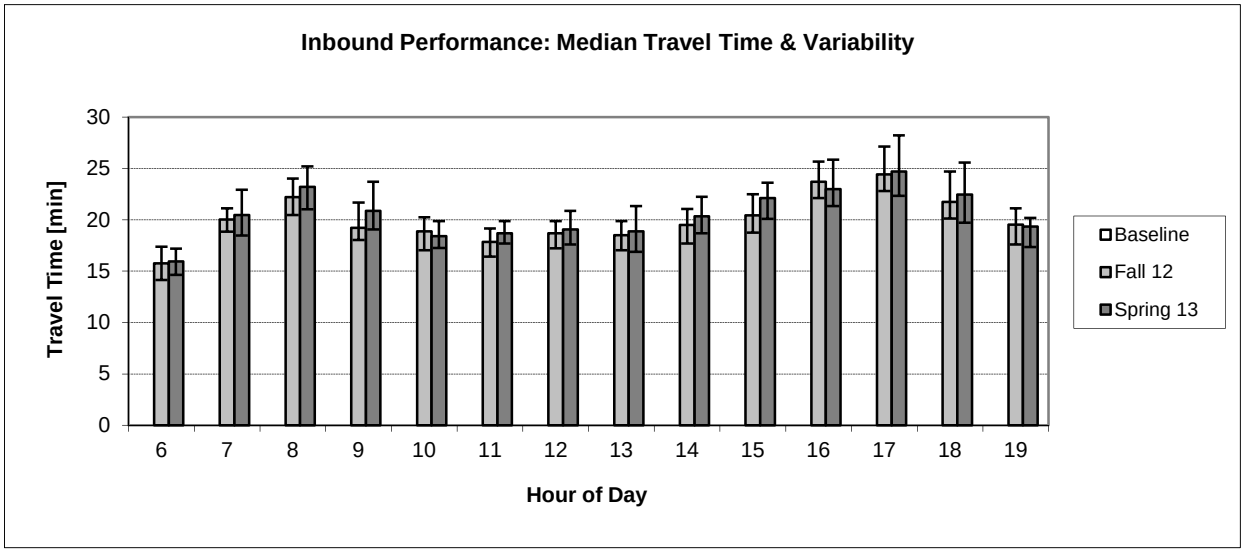


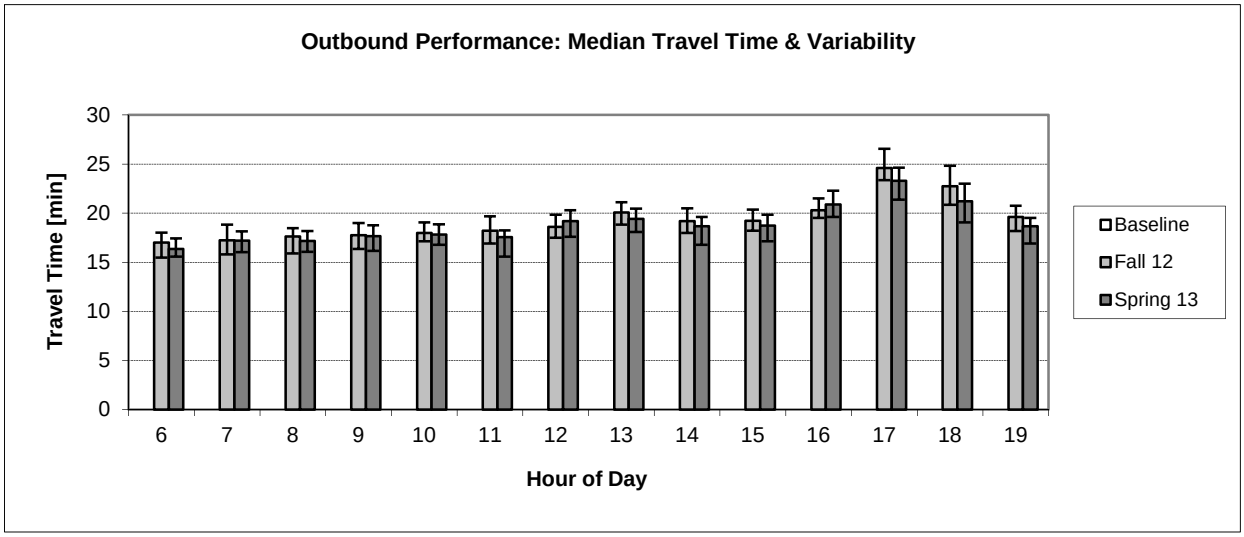


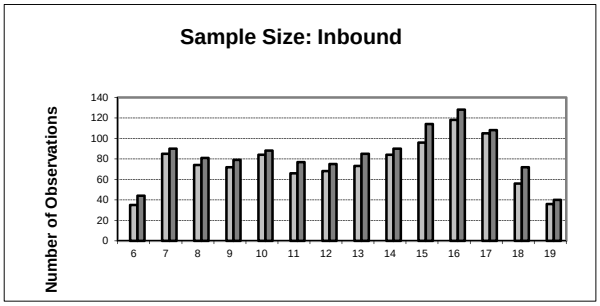
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 12	1/22/13 - 2/15/13	AVL
Spring 13	4/01/13 - 4/26/13	AVL

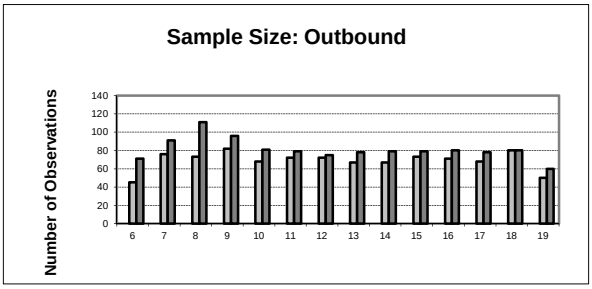
Pathway B.5

Westlake Ave/9th Ave & Denny Way to Leary Way & 15th Ave NW via Westlake Ave





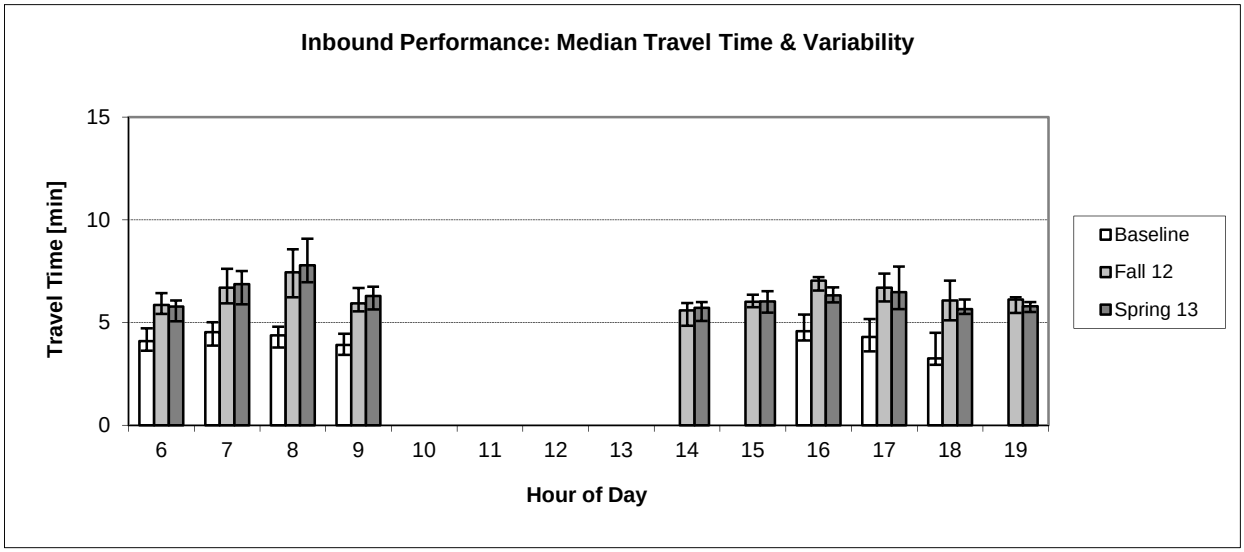


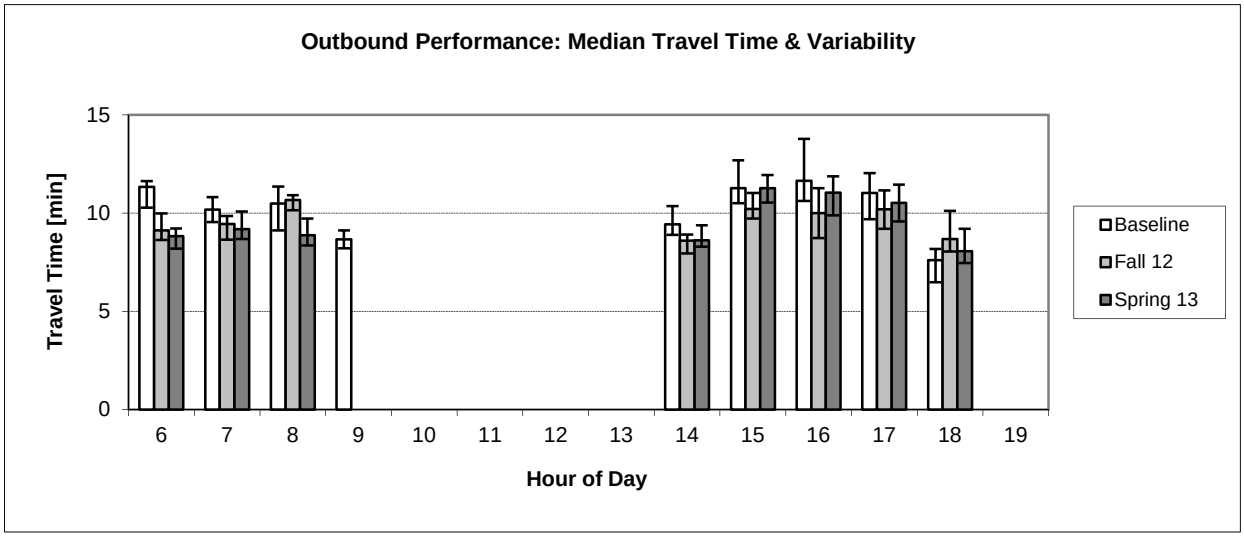


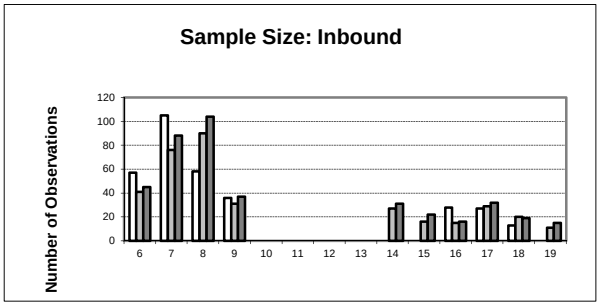
Scenario	Date Range	Data source
Baseline	Pathway was not used	N/A
Fall 12	1/22/13 - 2/15/13	AVL
Spring 13	4/01/13 - 4/26/13	AVL

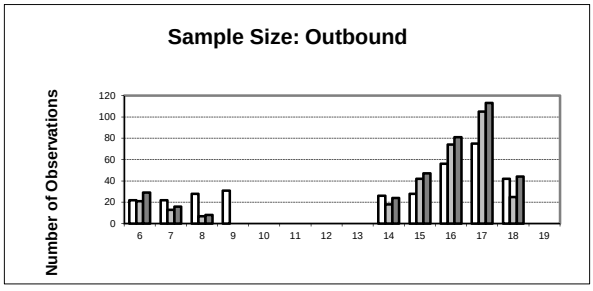
Pathway I.1

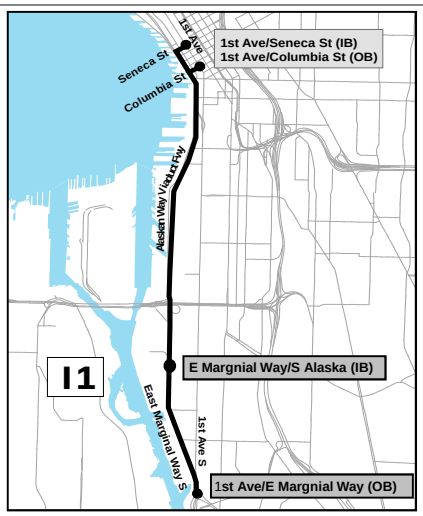
East Marginal Way & 1st Ave/Alaska St to 1st Ave & Seneca/Columbia St via Marginal/AWV







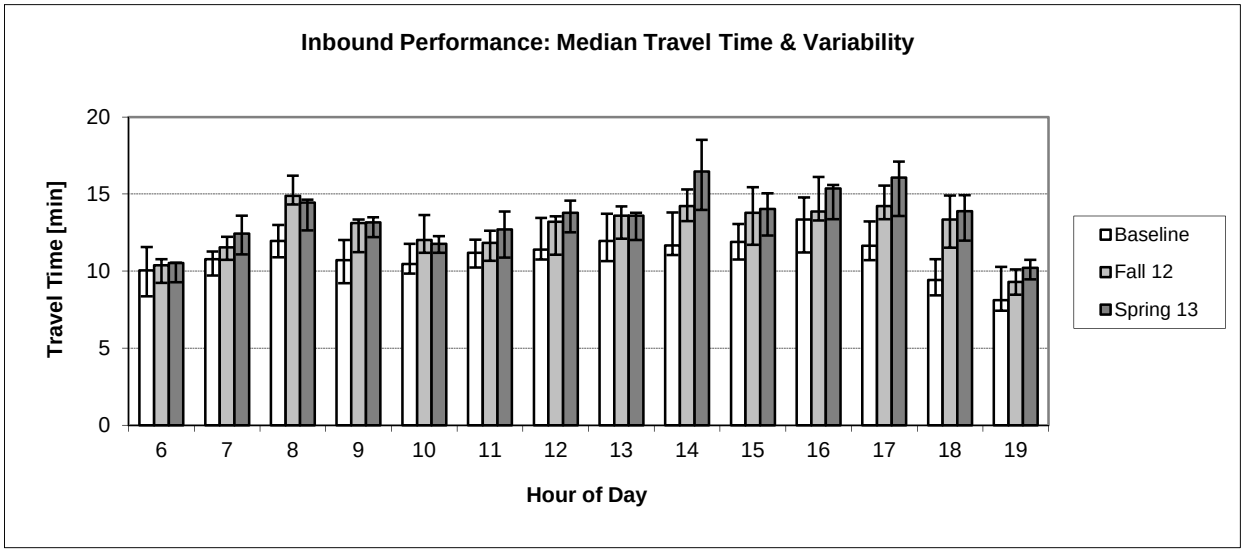


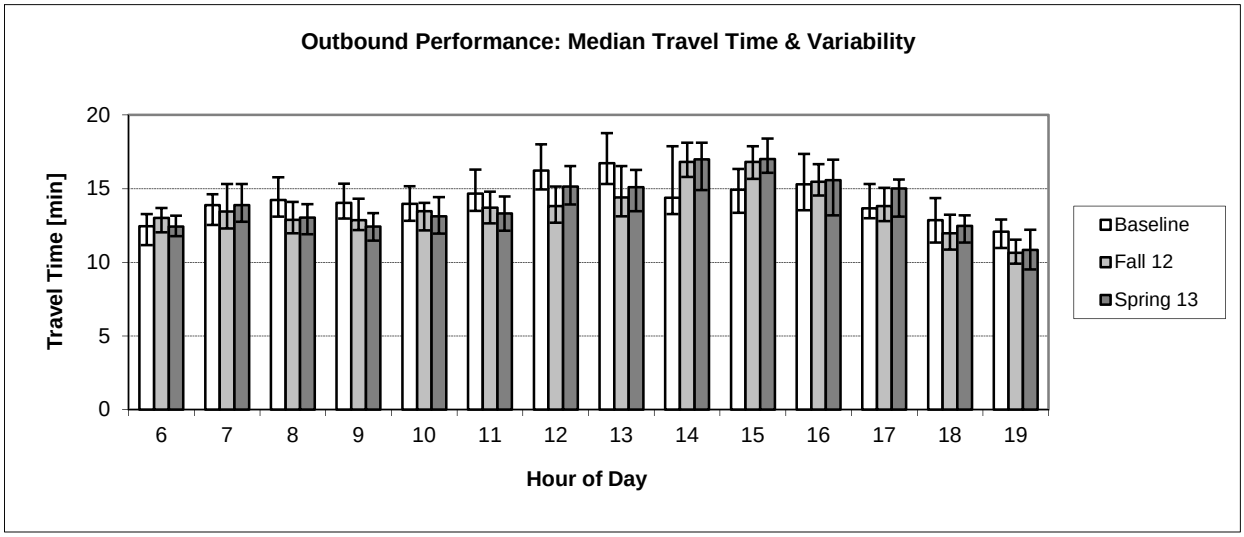


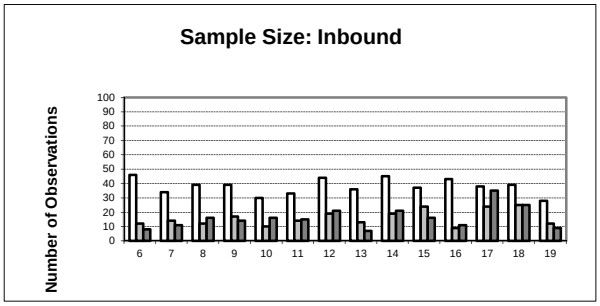
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL-AVI
Spring 13	4/01/13 - 4/26/13	AVL-AVI

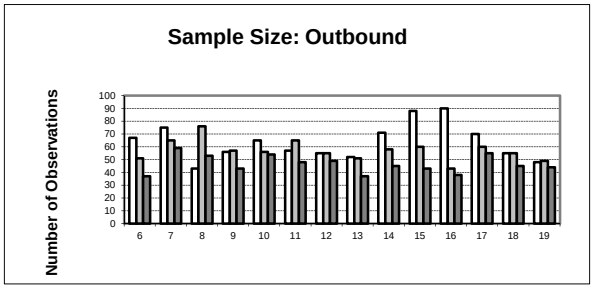
Pathway I.2

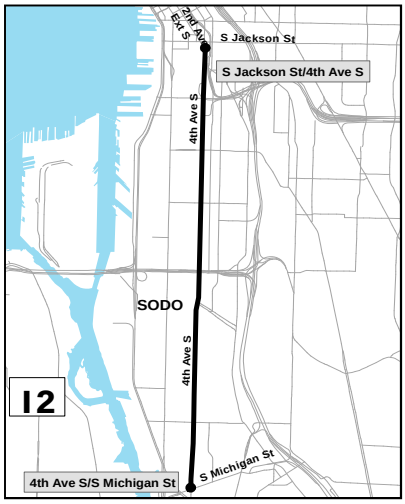
4th Ave S & S Michigan St to 4th/2nd Ave & Jackson St via 4th Ave S







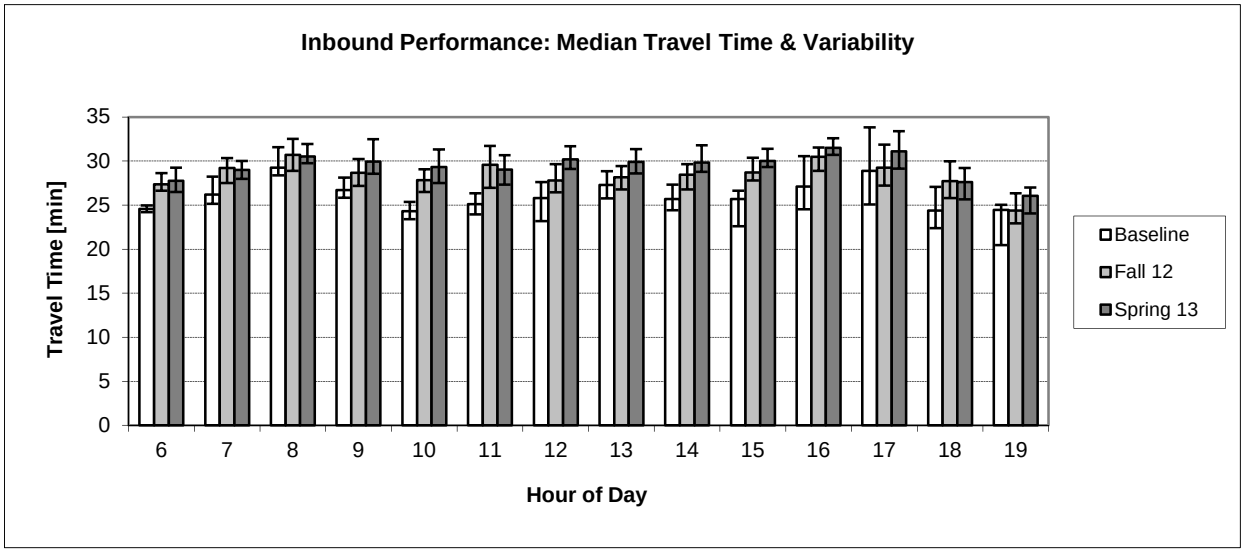


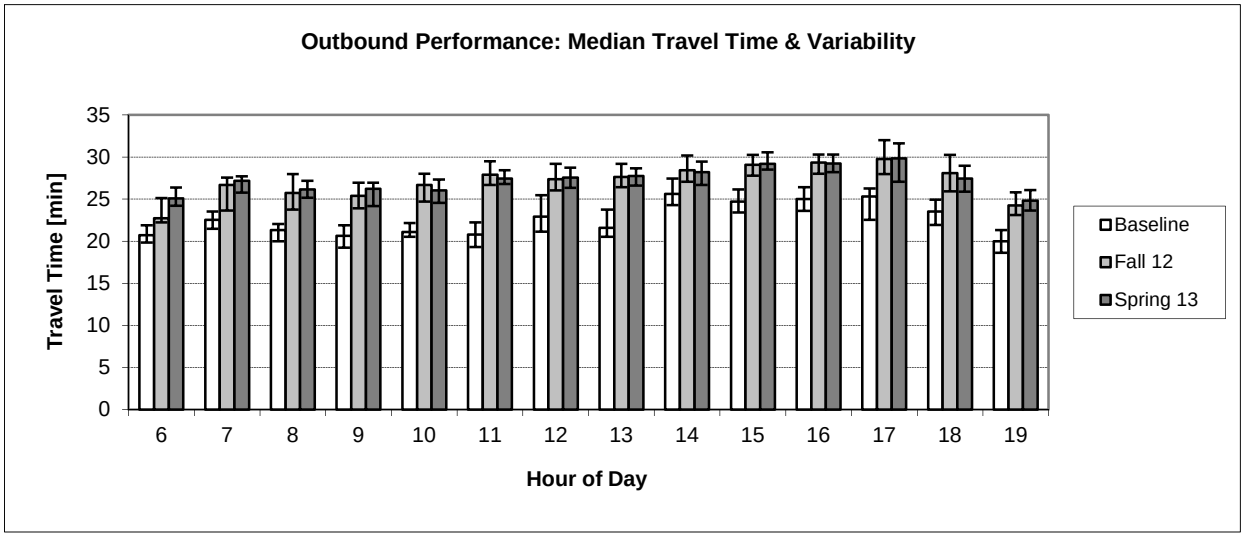


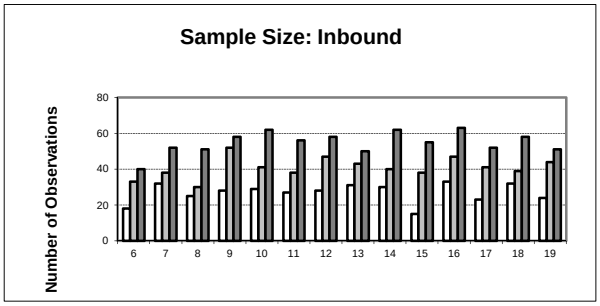
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL-AVI
Spring 13	4/01/13 - 4/26/13	AVL-AVI

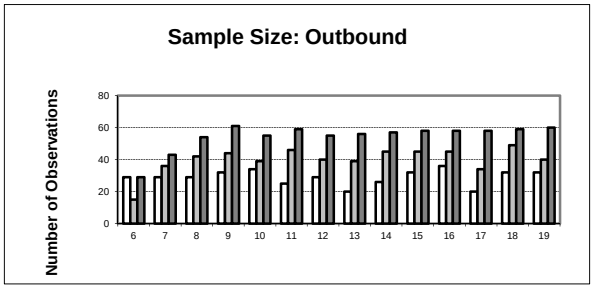
Pathway J.2

35th Ave SW & SW Morgan St to 3rd Ave & Seneca St via 1st Ave S





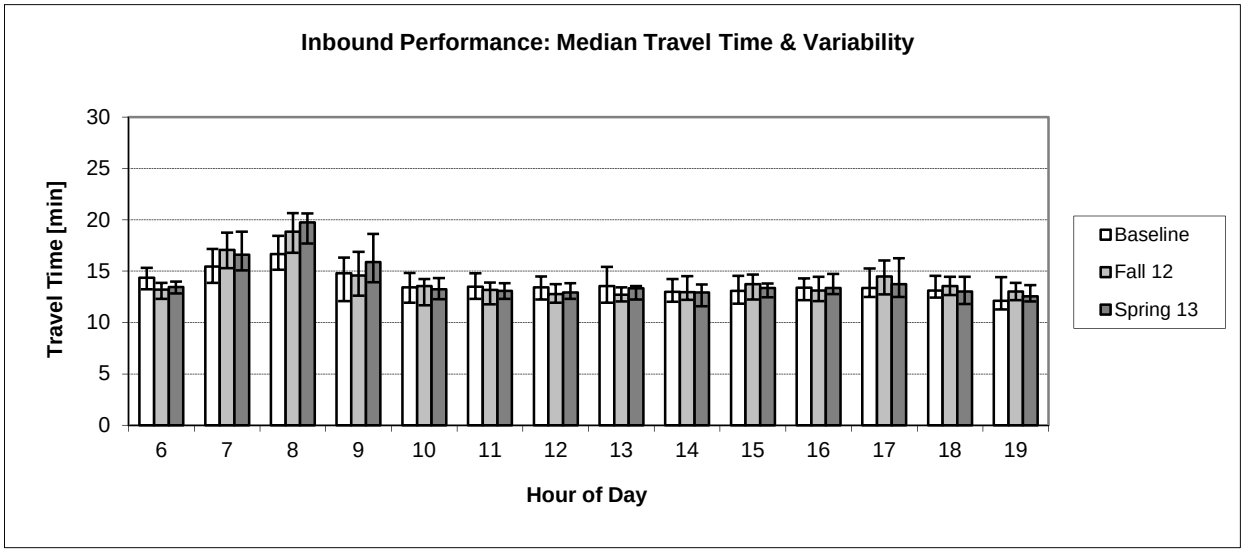


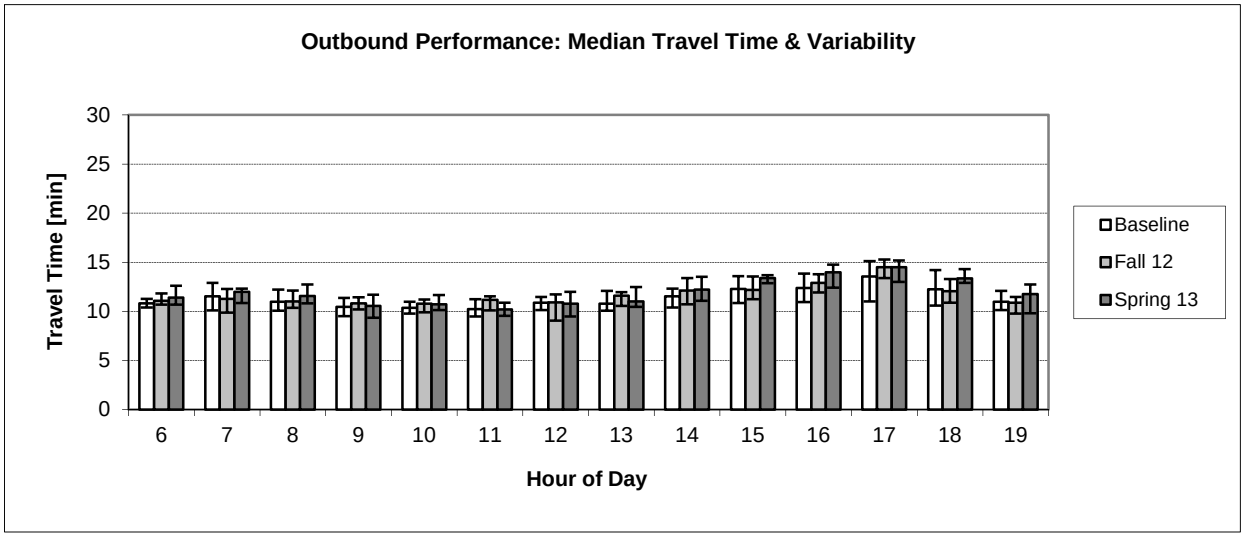


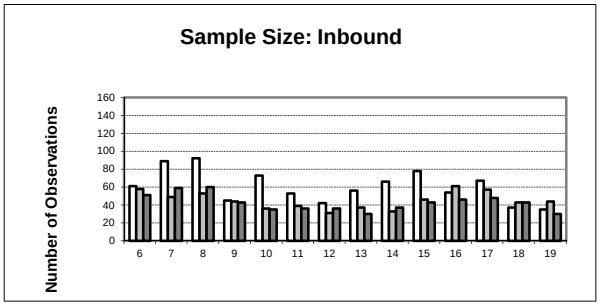
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL-AVI
Spring 13	4/01/13 - 4/26/13	AVL-AVI

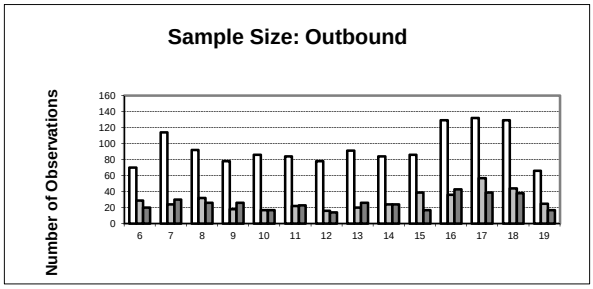
Pathway J.3

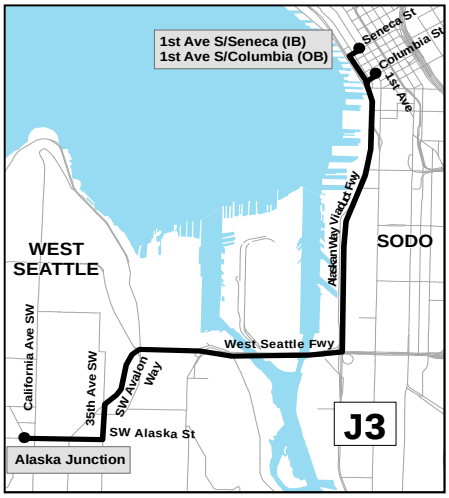
Alaska Junction to 1st Ave & Seneca/Columbia St via Alaskan Way Viaduct







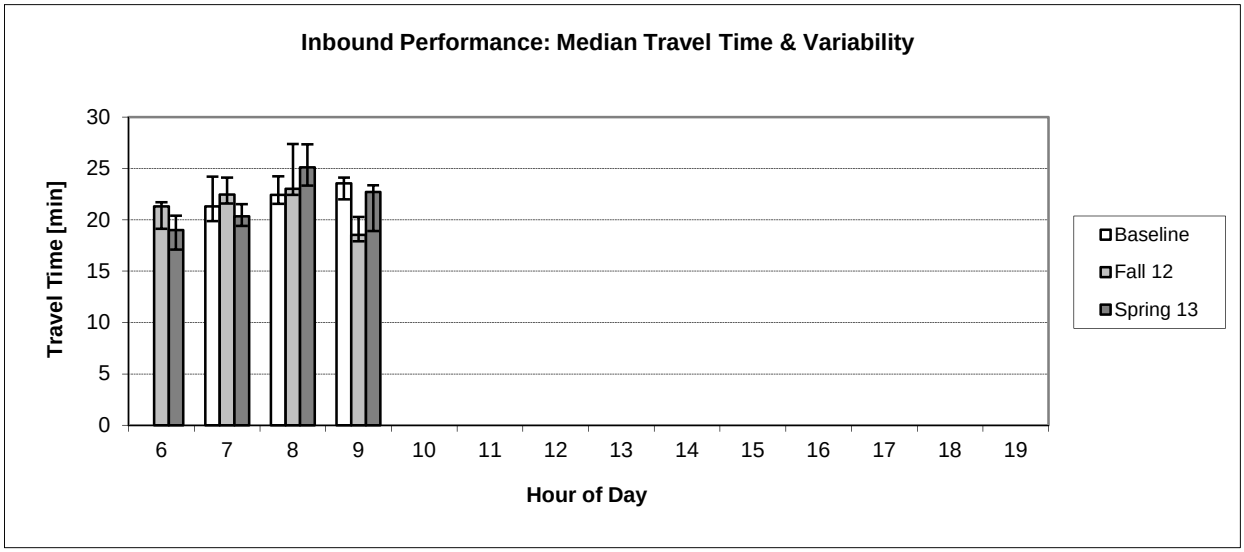


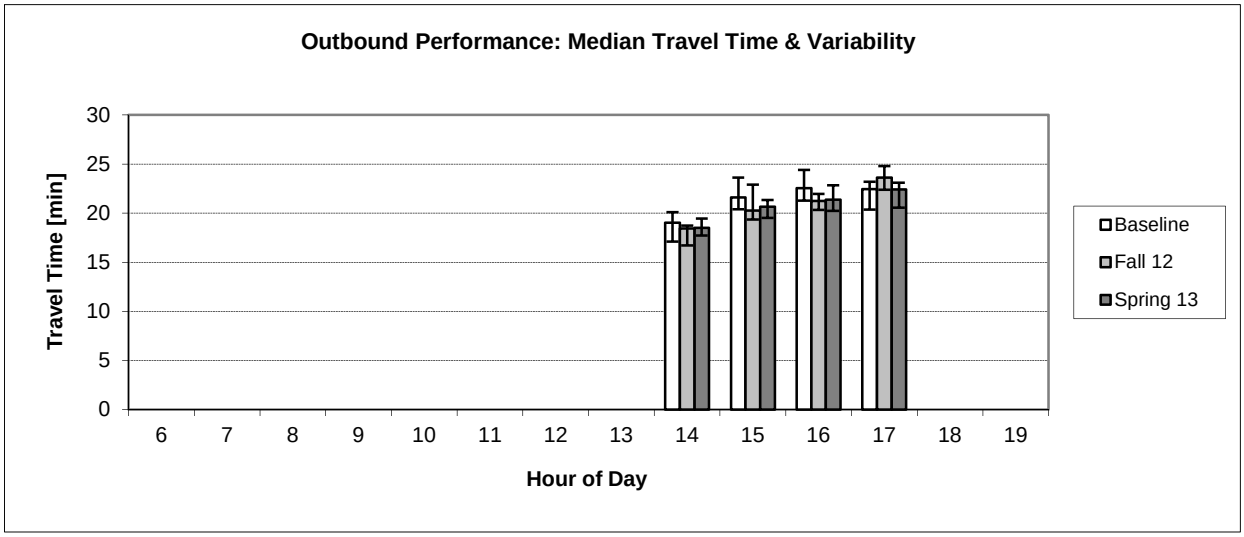


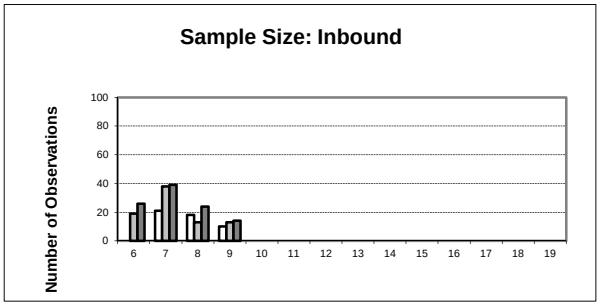
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	TSP-AVI
Spring 13	4/01/13 - 4/26/13	TSP-AVI

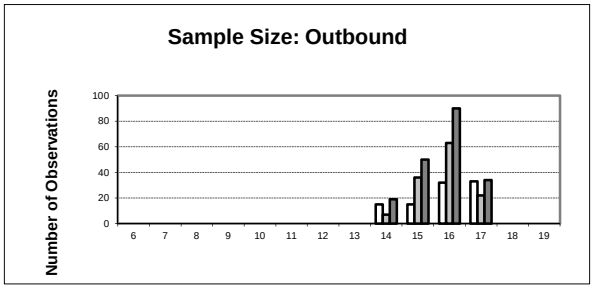
Pathway J.4

California Ave SW & SW Fauntleroy Way SW to 3rd Ave & Yesler St via 1st Ave S (Peak Only)





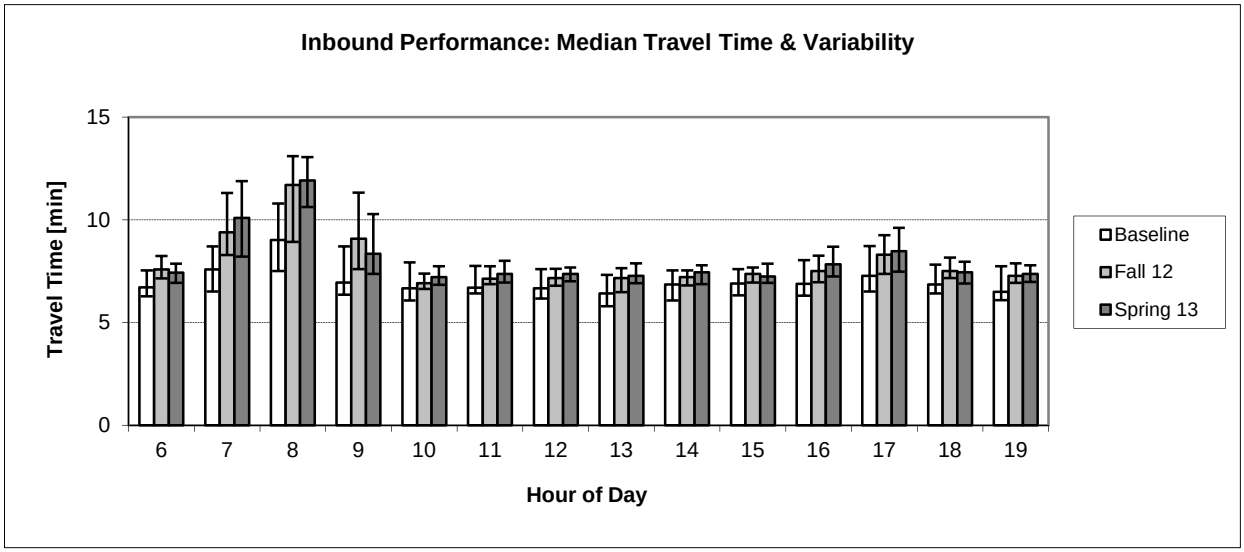


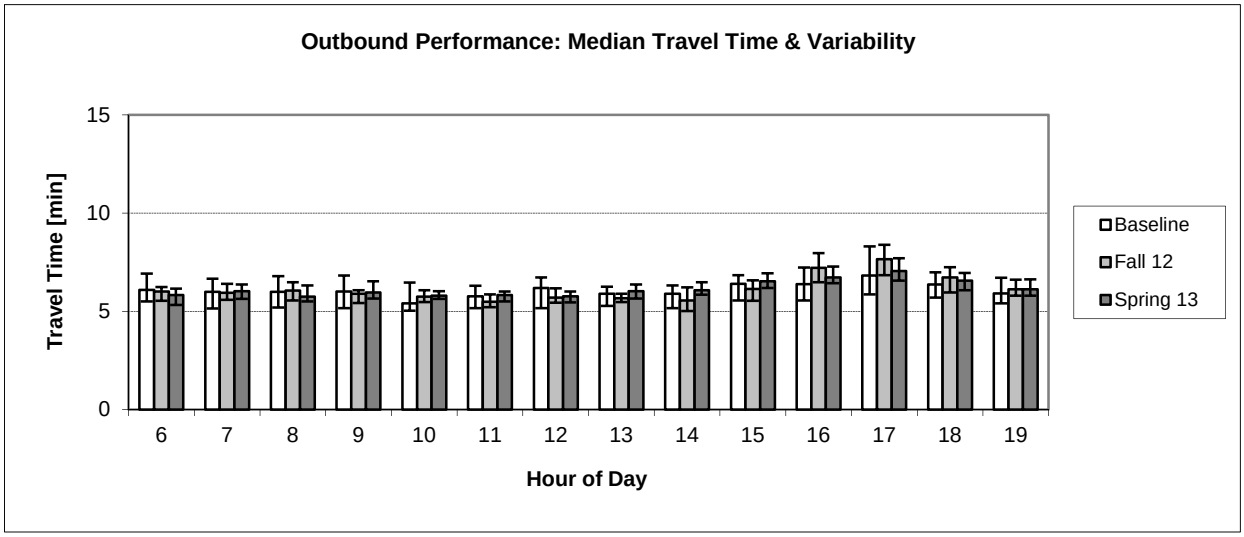


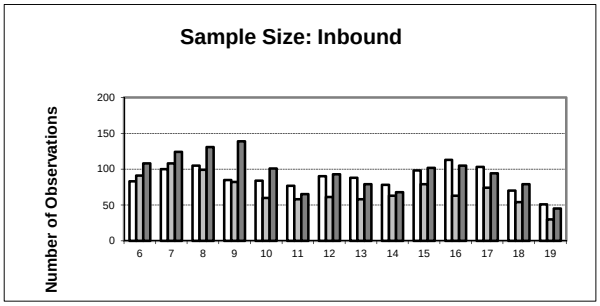
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 12	1/22/13 - 2/15/13	AVL-AVI
Spring 13	4/01/13 - 4/26/13	AVL-AVI

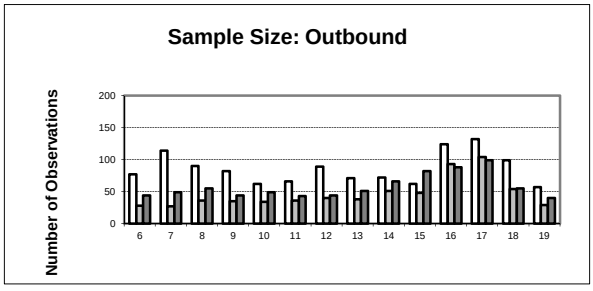
Pathway J.5

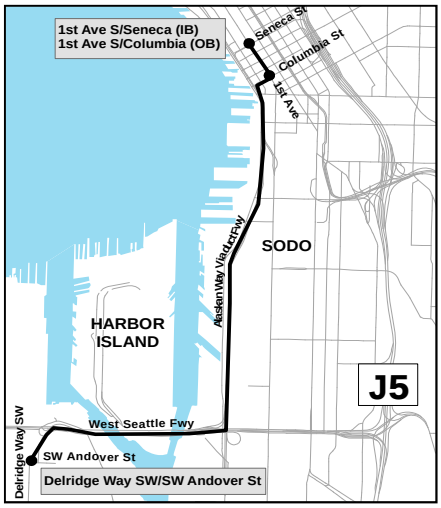
Delridge Way SW & SW Andover St to 1st Ave & Seneca/Columbia St via AWV







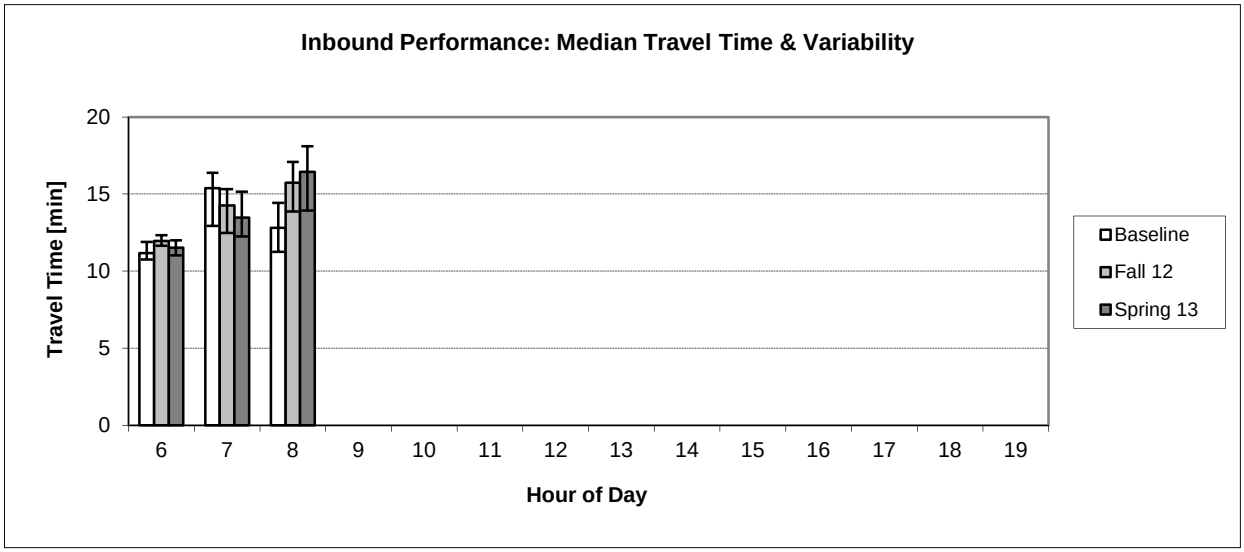


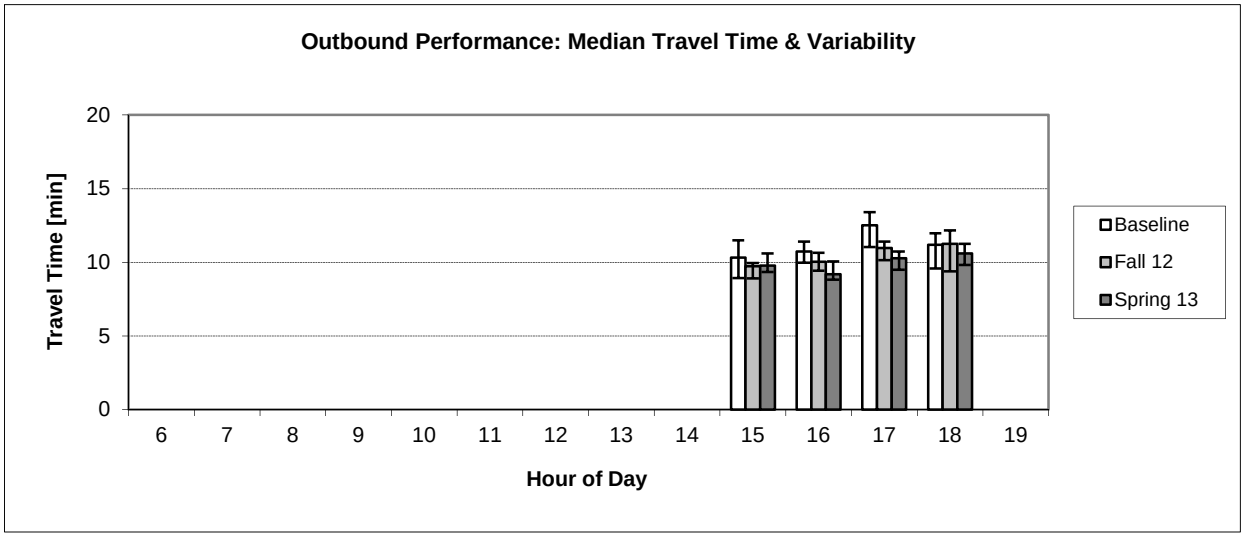


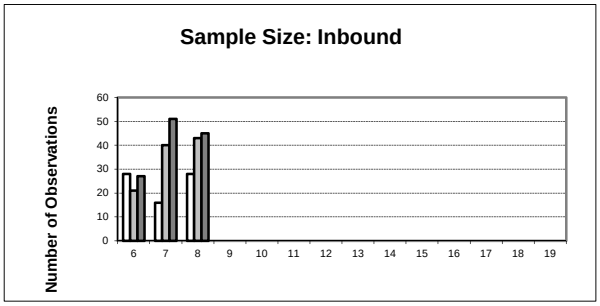
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	AVI
Spring 13	4/01/13 - 4/26/13	AVI

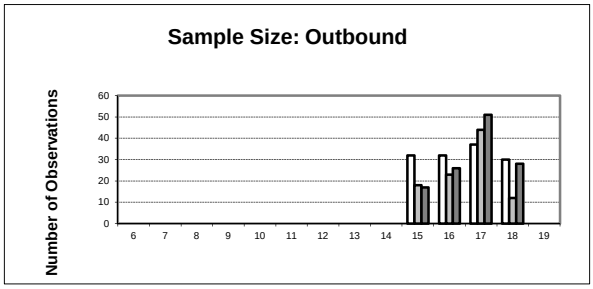
Pathway J.7

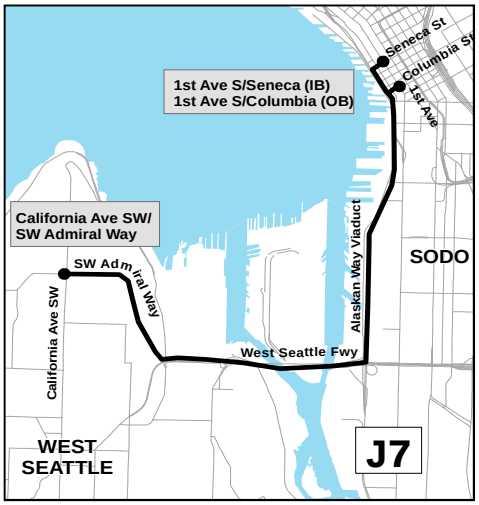
Admiral Way SW & Calfornia Ave SW to 1st Ave & Seneca/Columbia St via AWV (Peak Only)







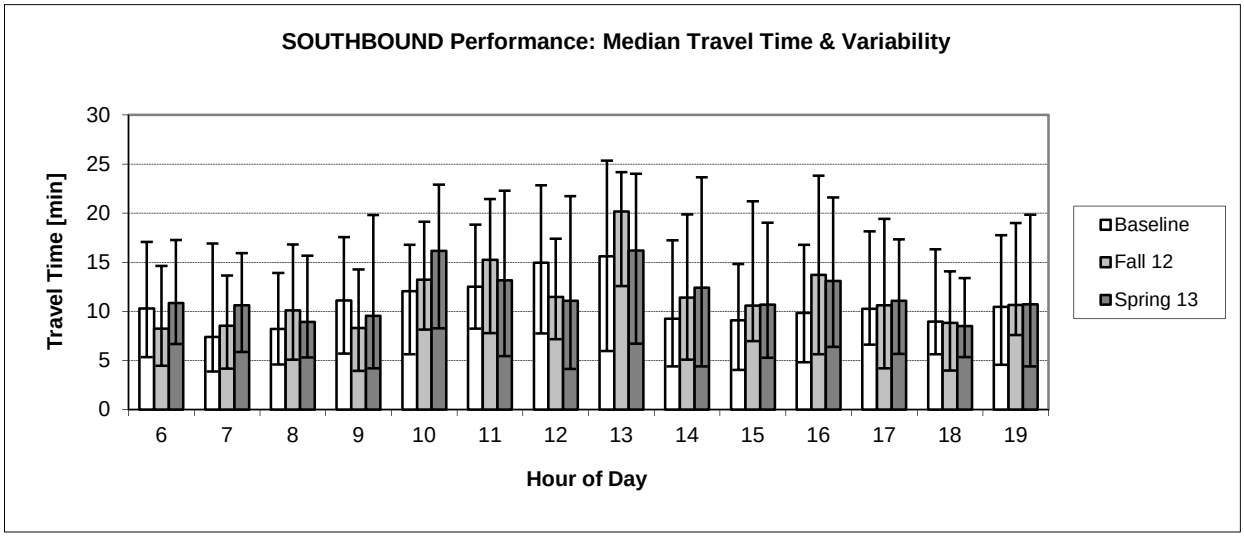


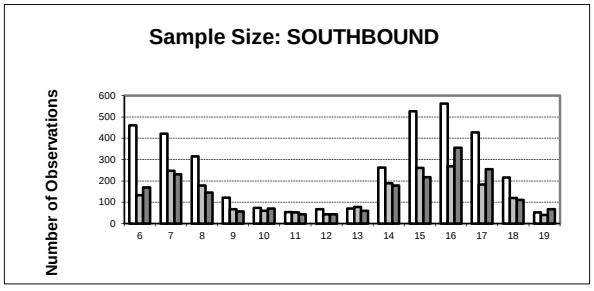


Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVL
Fall 12	1/22/13 - 2/15/13	AVI-AVL
Spring 13	4/01/13 - 4/26/13	AVI-AVL

Pathway CBD2

Second Avenue: Pike St to Jackson St

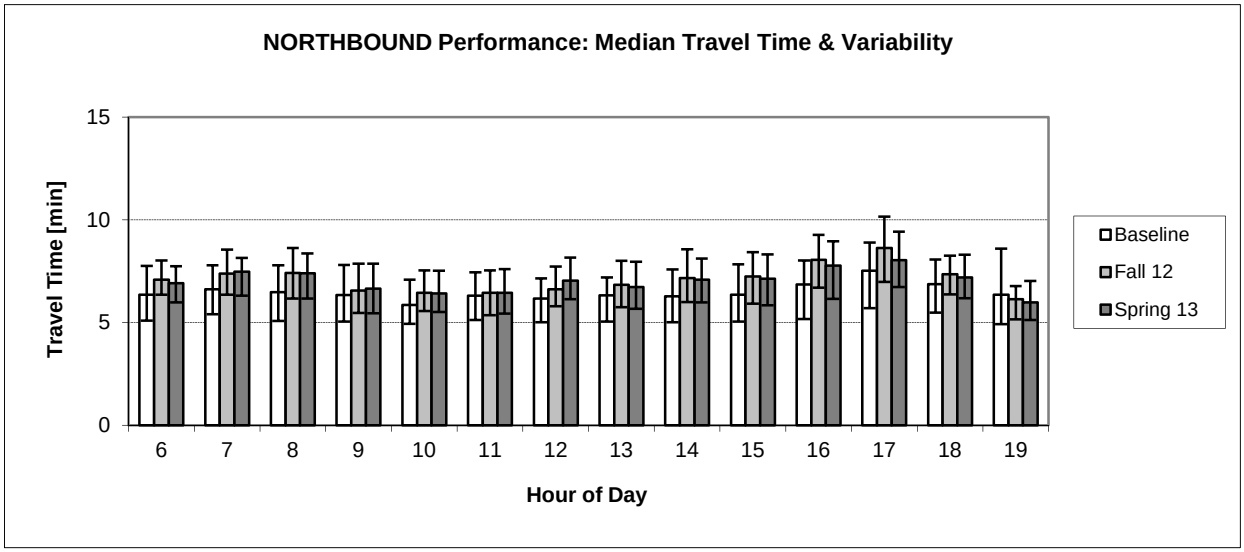


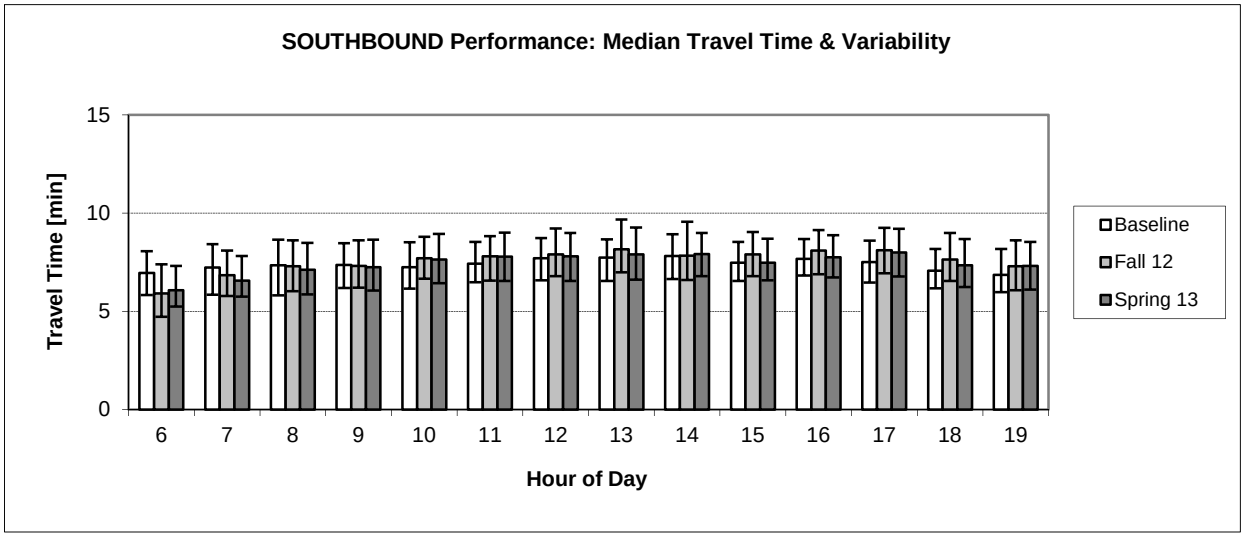


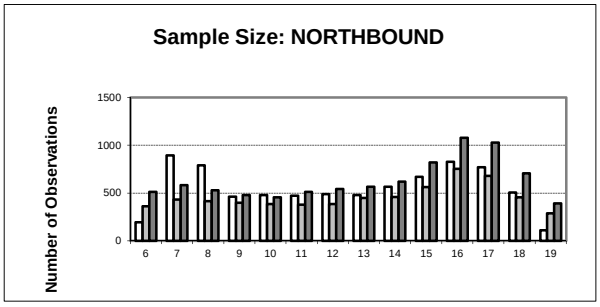
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	AVI
Spring 13	4/01/13 - 4/26/13	AVI

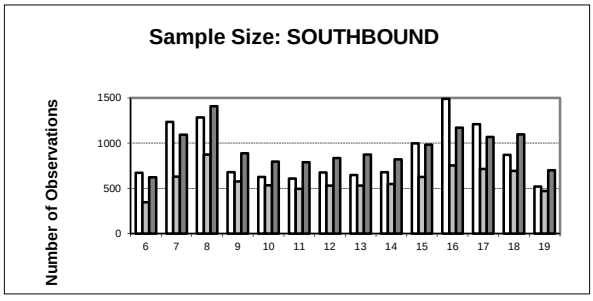
Pathway CBD3

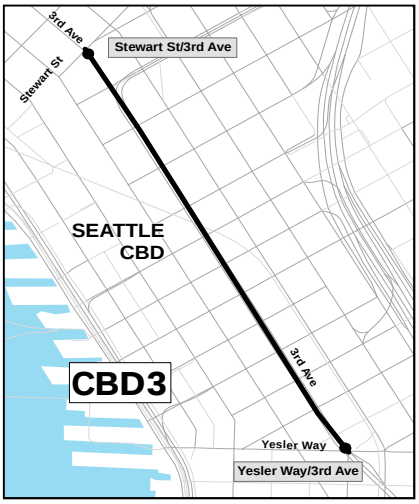
Third Ave: Stewart St to Yesler Way







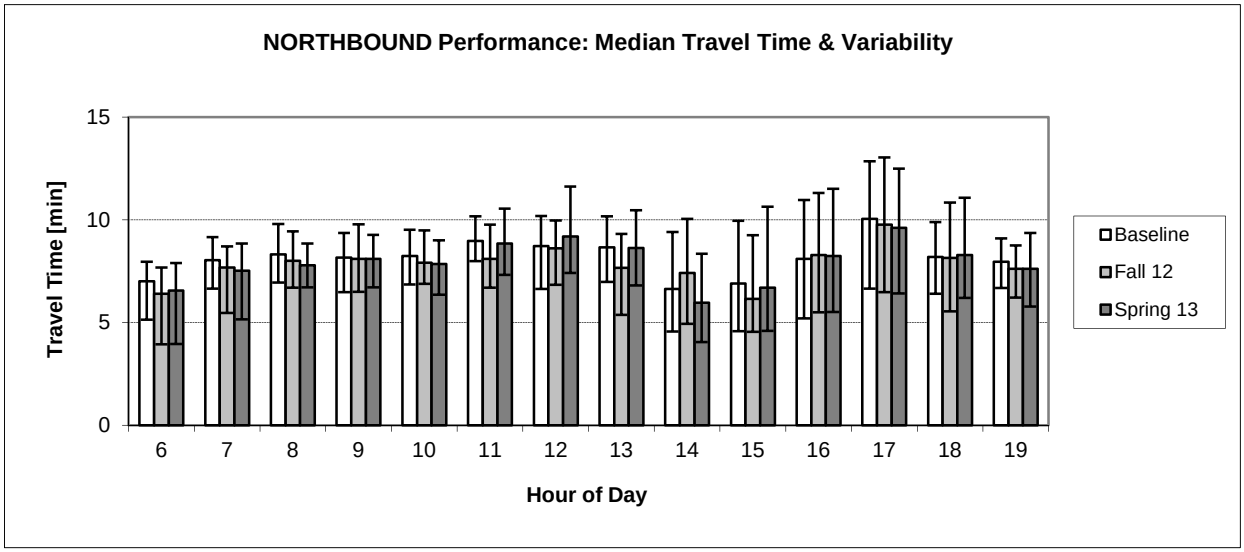


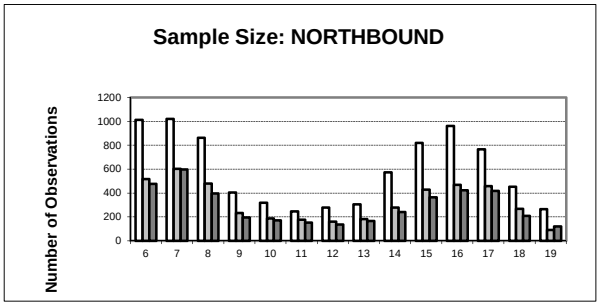


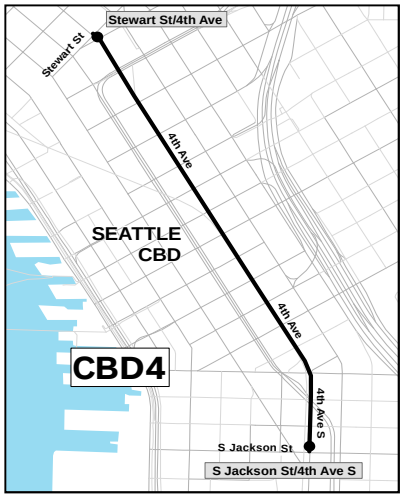
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	AVI
Spring 13	4/01/13 - 4/26/13	AVI

Pathway CBD4

Fourth Ave: Jackson St to Stewart St



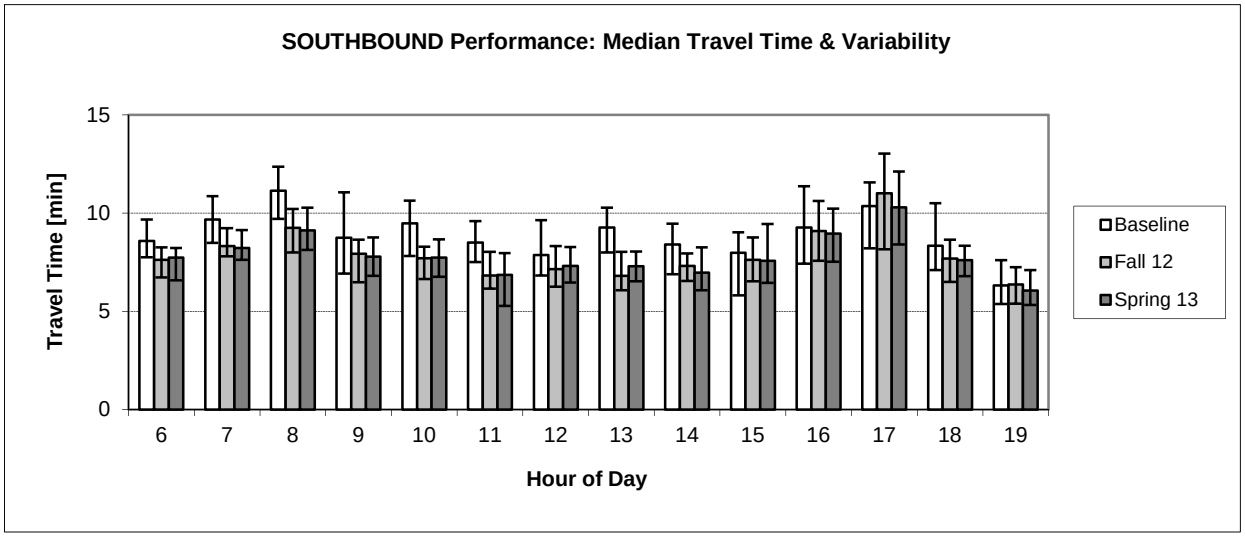


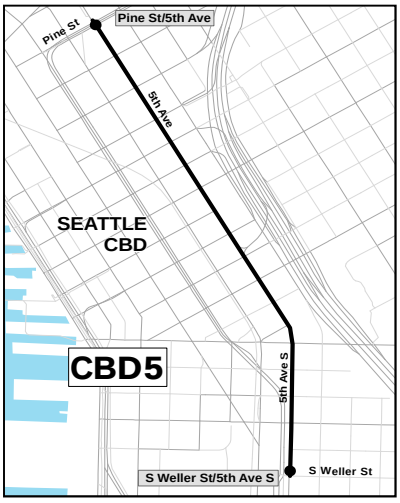


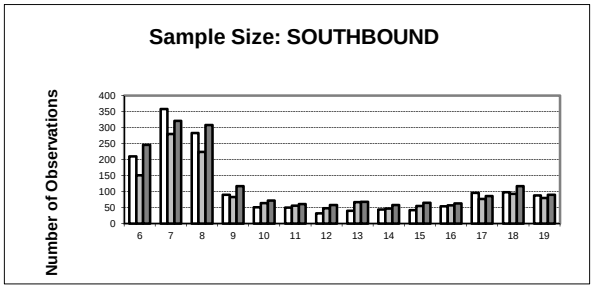
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	AVI
Spring 13	4/01/13 - 4/26/13	AVI

Pathway CBD5

Fifth Ave: Pine St to Weller St



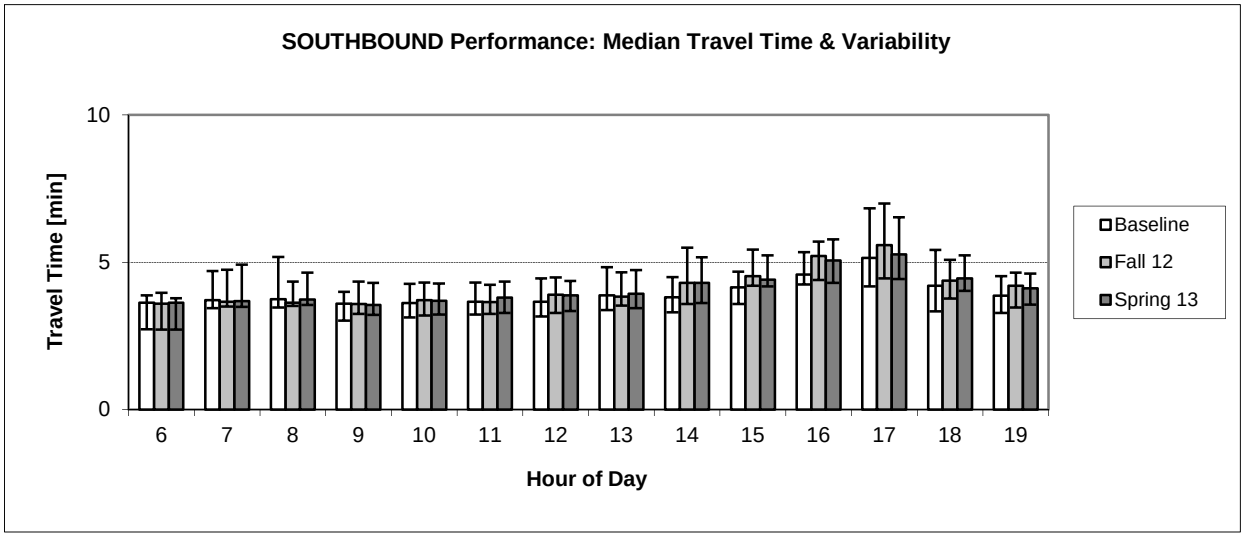


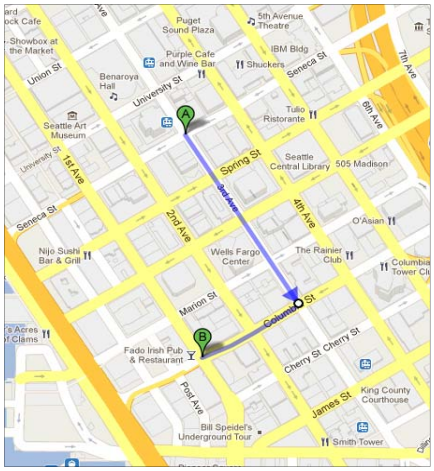


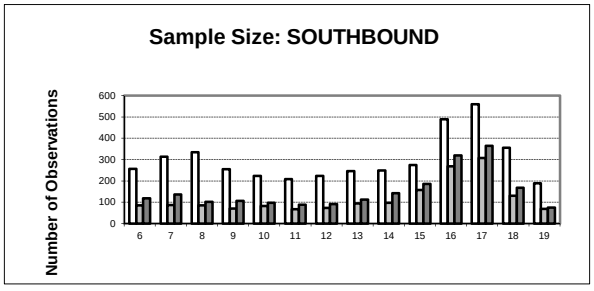
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	AVI
Spring 13	4/01/13 - 4/26/13	AVI

Pathway Columbia

Columbia Street: 3rd & Seneca to 1st & Columbia







Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 12	1/22/13 - 2/15/13	AVI
Spring 13	4/01/13 - 4/26/13	AVI