

**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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Metro Service Development Section

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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 2012 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 2012 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 2012 TO JUNE 2012

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 8, 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 11% 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 2012 service change.
- Among routes that received ETS improvements, Route 120 had the greatest increase in ridership in absolute terms, attracting nearly 600 additional rides during the peak periods

Travel Time Summary

- Travel times on pathways using SR-99 continue to be impacted by the bottleneck created by the Wosca Detour. However, the worst impacts in the inbound direction during the AM peak have lessened somewhat as traffic has shifted to other routes.
- Shifting traffic has consequently further impacted routes on 1st Avenue S and other SODO surface streets, particularly during the AM commute. Outbound routes using 1st Avenue continue to be impacted by the ramp closure at 1st Avenue S & Spokane Street.
- A six-week lane closure on southbound Aurora Avenue increased travel time on those pathways by two to four minutes all day.
- Transit pathways with transit improvements in place have shown consistent or improved performance throughout all reporting periods. These include bus lane and queue jumps on Columbia Street, bus lanes on Wall and Battery Streets, and Third Avenue through the CBD. Transit priority improvements on other pathways more severely impacted by construction have lessened those impacts, including Avalon Way bus lane and the bus lane on SR-99 north of Spokane St.

Transportation Demand Management Summary

- As of June 2012, the TDM program has converted over 6,900 peak hour trips. This is 67% over the contract target of 4,130 trips converted.
- Three TDM tasks have met their contract targets:
 - Promotions: with a trip reduction target of 1,380 trips, the Promotions of Transit and Ridesharing has reduced 4,784 trips so far.
 - Incentives: with a trip reduction target of 236 trips, the Incentives for Transit and Ridesharing has reduced 273 trips so far.
 - Employer Outreach: with a trip reduction target of 100 trips, the Employer Outreach has reduced 1,225 trips so far.

EXPENDITURES: SEPTEMBER 2009 – 2ND QUARTER 2012

As of the end of June 2012, Metro has invoiced WSDOT \$15,714,256 (\$544,456 under GCA 5864, \$14,50,8576 under GCA 5820 and \$661,224 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												
										CURRENT REPORT		
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 4-02-12	Volume 8 09-03-12	Volume 9 12-10-12	Volume 10 TBD	Volume 11 TBD
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 2011	As of Aug 2012	As of Dec 2012		
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	Sep 11 – Feb 12	Feb 12 – Jun 12	Jun 12 – Sep 12	Sep 12 – Feb 13	Feb 13 – Jun 13

*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 2012 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 – Coming off record ridership in 2008, the year 2009 was the first year to show a ridership decline since 2002. Many of the factors influencing ridership growth in 2008 reversed course in 2009: fuel prices fell, unemployment rose and sales tax receipts declined. However, unemployment rates were lower between February and June 2012 than any time since Fall 2008. At the same time, fuel prices increased by more than 75 percent, from a weekly average of \$2.32/gal between February and June in 2009 to \$4.12/gal in 2012. These factors contributed to strong ridership growth between Spring 2011 and Spring 2012.

The Enhanced Transit Service Table 1 below shows that the ridership trends of the Enhanced Transit Service pathways on the whole are generally 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	2010	2011	2012	% Change 2010-2012
System-wide Ridership	363,000	374,000	384,000	6%
Total of Pathways	77,140	80,350	93,760	22%
Pathway A – Ballard/Magnolia‡	16,440	16,610	17,590	7%
Pathway B – Aurora Fremont‡	28,340	31,570	35,100	24%
Pathway I – SODO/Georgetown	10,360	10,570	13,090	26%
Pathway J – West Seattle	22,000	21,600	27,970	27%
‡ 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 2012 COMPARED TO 2009 BASELINE

The Enhanced Transit Service Table 2 below compares the Spring 2012 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 roughly 50 percent of daily ridership. This is also true for the total of all pathways. Ridership has increased in nearly 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	2012 (% Change)	2009	2012 (% Change)	2009	2012 (% Change)	2009	2012 (% Change)
System-wide Ridership	375,000	384,000 (2%)	184,000	188,000 (2%)	68,000	69,000 (1%)	79,000	81,000 (3%)
Total of Pathways†	80,090	89,430 [93,760] (12%)	39,930	44,350 [46,170] (11%)	14,260	16,030 [16,709] (12%)	15,580	17,630 [18,510] (13%)
Pathway A – Ballard/Magnolia‡	16,920	17,590 (4%)	8,930	9,420 (5%)	2,950	2,970 (-1%)	3,080	3,060 (1%)
Pathway B – Aurora Fremont‡	31,970	35,100 (10%)	14,880	16,300 (10%)	5,860	6,430 (10%)	6,690	7,390 (10%)
Pathway I – SODO/Georgetown†	8,260	8,760 [13,090] (6%)	4,440	4,770 [6,590] (7%)	1,370	1,390 [2,070] (1%)	1,400	1,480 [2,360] (5%)
Pathway J – West Seattle†	22,940	27,970 (22%)	11,680	13,870 (19%)	4,080	5,240 (28%)	4,410	5,710 (29%)

*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

In February 2012, WSDOT funded the continuation of the additional trips on routes 18X, 21X, 56X, 120, 121 and 358. ETS trips on Routes 18X, 120 and 358 were added in Fall 2011, so Volume 8 is the first performance report for which Spring 2009 baseline figures have been provided.

Compared to the Spring 2009 baseline ridership has increased during the peak periods on all routes that received Enhanced Transit Service (ETS) funding during the Spring 2012 service change. The largest absolute change was observed on Route 120. The addition of eight ETS trips on Route 120 helped to attract nearly 600 additional rides during the peak periods on the route. The largest percent increase in ridership observed during peak periods was on Route 121 which increased by nearly 300 additional boardings or 40 percent.

The large increase in ridership on Route 121 is due, in part, to the completion of the new park-and-ride garage at Burien Transit Center, completed in August 2011. In 2nd Quarter 2012, approximately 100 more vehicles occupied the new parking garage than occupied the surface lot at Burien Transit Center in 2nd Quarter 2009.

On the whole, the peak period ridership performance of the ETS routes outperformed system-wide and pathway trends by 13 and 4 percentage points, respectively. The ridership performance of the ETS routes also outperformed system-wide and pathway trends in the shoulder periods. Comparing the difference in ridership change between ETS routes and the pathways they are part of show that without WSDOT investments there would be approximately 400 fewer peak period transit trips in the four pathways.

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	2012 (% Change)	2009	2012 (% Change)	2009	2012 (% Change)	2009	2012 (% Change)
18X / Pathway A	760	860 (13%)	760	810 (6%)	No Service	50 (N/A)	No Service	No Service
21X / Pathway J	770	1,000 (30%)	740	900 (22%)	30	100 (34%)	No Service	No Service
56X / Pathway J	590	710 (20%)	510	600 (17%)	70	90 (34%)	No Service	No Service
120 / Pathway J	6,850	8,310 (21%)	2,900	3,490 (20%)	1,370	1,650 (20%)	1,600	1,990 (25%)
121 / Pathway I	1,090	1,250 (14%)	730	1,020 (40%)	210	170 (-18%)	90	No Service
358 / Pathway B	9,900	10,720 (8%)	4,260	4,590 (8%)	1,880	2,050 (9%)	2,240	2,420 (8%)
Enhanced Transit Service Route Total	19,960	22,850 (14%)	9,910	11,400 (15%)	3,560	4,120 (16%)	3,920	4,410 (12%)

*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.
[†]Midday Ridership does not include 121 boardings because those trips were discontinued in Feb 2010.
 Route 54 no longer listed in this table
 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 2012 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 2012 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.

Table 4 shows that the WSDOT investments in the pathway J (routes 21X, 56X and 120) in particular have helped increase the peak period capacity of the whole corridor. Transit capacity by time period can change based on the number of trips scheduled in the time period, or the coach size assigned to the trips. For example, peak period seating capacity in Pathway I decreased despite the addition of four new ETS trips on Route 121. In this instance, the decrease in seating capacity resulted from a shift to low-floor coaches, which have fewer seats.

Enhanced Transit Service Table 4

SPRING 2012 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	2012 (% Change)	2009	2012 (% Change)	2009	2012 (% Change)
Pathway A – Ballard/Magnolia†	9,160	9,990 (9%)	2,940	3,250 (10%)	3,600	4,180 (16%)
Pathway B – Aurora Fremont†	15,530	15,610 (0%)	5,810	6,020 (3%)	7,640	7,510 (-2%)
Pathway I – SODO/Georgetown*	6,190	5,730 [7,760] (-7%)	1,890	1,780 [2,630] (-6%)	1,940	1,770 [2,730] (-9%)
Pathway J – West Seattle‡	15,920	18,160 (14%)	5,610	7,260 (29%)	7,220	8,550 (18%)
Total of all Pathways	46,790	49,490 (6%)	16,260	18,310 (13%)	20,400	22,000 (8%)

*The increase in ridership 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 Spring 2012 service change to the Spring 2012 ETS proposal. Table 5 shows that in total, Metro provided slightly more capacity than originally proposed. During the Spring 2011 service change WSDOT funds provided 17 percent more peak period transit capacity on Routes 18X, 21X, 56X, 120, 121 and 358. This percentage is lower than in prior

reports due to the inclusion of two frequent all-day routes - 120 and 358 - among the set of routes with ETS improvements. As will be shown in the next section this additional capacity has improved the transit capacity level of service on many of these routes and certainly helped attract the 400 peak period transit trips that Metro would otherwise not expect to serve.

Enhanced Transit Service Table 5

COMPARISON OF WSDOT FUNDED TRANSIT CAPACITY WITH METRO FUNDED PEAK PERIOD TRANSIT CAPACITY				
Spring 2012				
Route/Pathway	Metro Funded Peak Period*	Actual WSDOT Funded*	Spring 2012 ETS Proposal†	% Increase in Seating Capacity Compared to Metro Peak Period
18X	730	120	120	17%
21X	850	360	350	43%
56X	650	240	230	36%
120	2,900	460	460	16%
121	1,290	210	230	16%
358	3,960	380	350	10%
Total	10,380	1,770	1,740	17%

*Actual average seats/trip for Spring2011 was as follows: 18X:61, 21X:61, 56X:59, 120:58, 121:52 and 358:64
†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 2012 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. Strong ridership growth on the ETS routes has resulted in the number of trips providing a transit capacity LOS of C or worse to remain constant among the six routes in total. However, the overall number *riders* experiencing LOS of C or worse decreased slightly.

One of the purposes of these added trips was to make room for additional transit commuters in advance of the most disruptive construction period. Table 7 below shows that the average load factors on all but routes 120 and 121 are down, meaning that WSDOT has made it possible for Metro to make room for additional transit commuters in preparation for the most disruptive construction period.

Enhanced Transit Service Table 7

COMPARISON OF SPRING 2012 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	2012	2009	2012	2009	2012	2009	2012
18X	0.87	0.85	4	4	77%	81%	270	300
21X	0.83	0.64	5	2	87%	26%	340	120
56X	0.70	0.50	3	0	76%	0%	200	0
120	0.76	0.89	6	12	46%	86%	400	850
121	0.47	0.64	0	3	0%	48%	0	160
358	0.73	0.68	9	6	57%	36%	730	410
Total							1,940	1,840

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	2012	2009	2012	2009	2012	2009	2012
18X	0.78	0.70	4	2	63%	25%	260	110
21X	0.78	0.62	2	2	47%	31%	160	140
56X	0.68	0.61	2	2	53%	31%	130	110
120	0.77	0.68	9	5	60%	30%	610	390
121	0.68	0.67	2	3	29%	30%	90	150
358	0.80	0.72	15	10	74%	42%	1,140	790
Total							2,390	1,690

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 2012 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	2012	2009	2012	2009	2012
Pathway A – Ballard/Magnolia	58%	50%	24	23	1,480	1,480
Pathway B – Aurora Fremont	53%	60%	37	43	2,500	2,860
Pathway I – SODO/Georgetown	16%	29%	6	12	270	560
Pathway J – West Seattle	52%	39%	38	26	2,170	1,710
All Pathways	49%	47%	105	104	6,420	6,610
Inbound Trips All Other Times of Day						
	2009	2012	2009	2012	2009	2012
Pathway A – Ballard/Magnolia	27%	20%	27	19	1,360	1,120
Pathway B – Aurora Fremont	26%	21%	46	44	2,870	2,780
Pathway I – SODO/Georgetown	8%	4%	5	3	210	170
Pathway J – West Seattle	16%	4%	22	6	1,150	390
All Pathways	22%	14%	100	72	5,590	4,460
Total Inbound Trips			205	176	12,010	11,070

Enhanced Transit Service Table 10

SPRING 2012 SERVICE CHANGE COMPARISON OF OUTBOUND WEEKDAY PASSENGER LOADS BY CORRIDOR PEAK PERIOD SUMMARY WITH SPRING 2011 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	2012	2009	2012	2009	2012
Pathway A – Ballard/Magnolia	45%	19%	22	12	1,320	610
Pathway B – Aurora Fremont	59%	52%	48	46	3,000	3,040
Pathway I – SODO/Georgetown	40%	19%	12	9	560	400
Pathway J – West Seattle	51%	30%	34	23	2,090	1,480
All Pathways	52%	34%	116	90	6,970	5,530
Outbound Trips All Other Times of Day						
	2009	2012	2009	2012	2009	2012
Pathway A – Ballard/Magnolia	22%	13%	24	12	1,280	740
Pathway B – Aurora Fremont	23%	12%	38	21	2,550	1,360
Pathway I – SODO/Georgetown	6%	3%	3	3	140	110
Pathway J – West Seattle	11%	8%	14	11	840	730
All Pathways	18%	10%	79	47	4,810	2,940
Total Outbound Trips			195	137	11,780	8,470

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 2012 ETS proposal, Metro budgeted 2,600 hours of flexible services to meet these needs. However, no flexible hours were deployed during the course of the February 2012 service change.

WATER TAXI AND SHUTTLE SERVICE

The Winter 2011-2012 sailing season was the first 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 31, 2011 to April 8, 2012. The period from February 20th to April 8th, 2012 coincided with Metro's Spring 2012 service change. WSDOT began funding the Water Taxi and shuttle services on January 1. As shown in Table 12 below, the Water Taxi attracted over 400 rides and provided nearly 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 2012						
Route	Peak Period		Shoulder Periods		TOTAL	
	Rides	Seats	Rides	Seats	Rides	Seats
Water Taxi	400	3,000	70	900	470	3,900
Water Taxi Shuttles	N/A*	N/A*	N/A*	N/A*	180	770

* 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 AWW 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 AWW program.

This report compares the Spring 2012 service change condition to the previous travel time report (Fall 2011) 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 2011 service change condition: October 31, 2011 through November 18, 2011
- Spring 2012 service change condition: April 2, 2011 through April 27, 2011

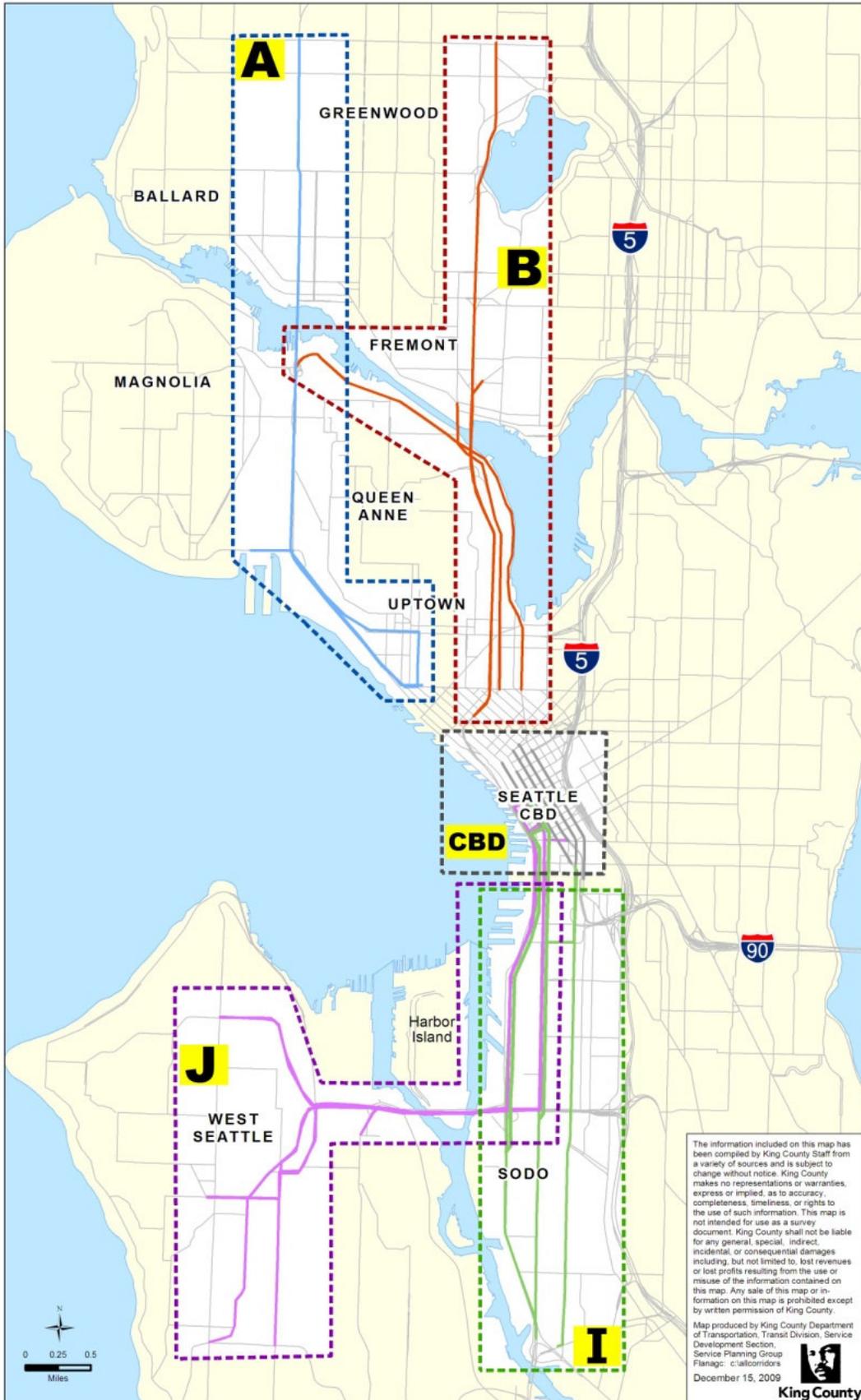
Travel time data was collected and processed as discussed below:

- 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:
 - o Automatic Vehicle Identification (AVI) readers installed at endpoints of key transit corridors
 - o Data from Metro's signpost-based Automatic Vehicle Location (AVL) 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.

For this report, several data substitutions were made due to AVI reader availability. AVI readers at 3rd Avenue & Battery Street and 3rd Avenue & Stewart Street have been offline or not producing reliable data during this reporting period, therefore AVL data has been substituted for the start or end points of pathways that rely on these readers. This has affected pathways B.1, B.2, and CBD3. In some cases the switch to AVL data has moved the data point location slightly, but not more than one block, so this substituted data would be comparable to previous data.

Pathways and Pathway Groups

Transit Routes Affected by AWW 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	15 th NW/NW 85 th	1 st Ave/Denny	15,[18]
	A.2	Ballard	15 th NW/NW 85 th	1 st Ave/Denny	15X,[17X,18X]
	A.3	Magnolia	Elliot Ave/Magnolia Br.	1 st Ave/Denny	19,24,33
B	B.1	North Seattle	Aurora Ave NW/NE 85 th	3 rd Ave/Battery	358
	B.2	North Seattle	Bridge Way/N 38 th	3 rd Ave/Battery	5, [5X,26X,28X]
	B.3	Fremont	Dexter/Westlake/Fremont	Dexter/Denny	26,28
	B.4	South Lake Union	Ballard Br./Denny	Denny/Westlake	17
I	I.1	South Seattle/Burien	1 st Ave S/E. Marginal (OB) S Alaska/E Marginal (IB)	1 st Ave/Columbia (OB) 1 st Ave/Seneca (IB)	121,122
	I.2	South Seattle/Burien	4 th Ave S/S Michigan	4 th /2 nd Ave/Jackson	23, 123X, 124
	I.3	South Seattle/Burien	1 st Ave S/E. Marginal	4 th /2 nd Ave/Jackson	132
J	J.1	West Seattle	Alaska Jct.	3 rd Ave/Seneca	22
	J.2	West Seattle	35 th Ave SW/SW Morgan	3 rd Ave/Seneca	21
	J.3	West Seattle	Alaska Jct.	1 st Ave/Columbia (OB) 1 st Ave/Seneca (IB)	54,55 [21X]
	J.4	West Seattle	California Ave/SW Fauntleroy Way	3 rd Ave/Yesler	116,118, 119, [54X]
	J.5	West Seattle/Burien	Delridge Way/Andover	1 st Ave/Columbia (OB) 1 st Ave/Seneca (IB)	120,125
	J.6	West Seattle	Admiral Way/California Ave	4 th Ave/Jackson	56, 57
	J.7	West Seattle	Admiral Way/California Ave	1 st Ave/Columbia (OB) 1 st Ave/Seneca (IB)	56X
CBD	CBD.2	2 nd Ave	4 th Ave/Stewart	2 nd /Jackson	Many
	CBD.3	3 rd Ave	3 rd Ave/Stewart	3 rd Ave/Yesler	Many
	CBD.4	4 th Ave	4 th Ave/Jackson	4 th Ave/Stewart	Many
	CBD.5	5 th Ave	5 th Ave/Pine	5 th Ave/Weller	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 five CBD pathways they are not all listed here.

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 2012, Fall 2011, and Baseline Travel Speeds

Performance by Pathway Group: Spring 2012, Fall 2011, & 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 '12	15.3	12.4 – 21.9	12.1 – 18.0
		Fall '11	15.6	13.1 – 20.9	12.1 – 16.1
		Baseline	14.9	12.1 – 23.6	11.4 – 19.0
B	Aurora, Fremont	Spring '12	17.3	10.8 – 19.4	10.6 – 19.2
		Fall '11	18.0	11.0 – 22.1	10.9 – 22.1
		Baseline	18.6	11.0 – 22.7	11.0 – 20.3
I	SODO, Georgetown	Spring '12	18.3	15.4 – 36.7	13.1 – 23.0
		Fall '11	17.9	14.8 – 33.8	14.6 – 26.6
		Baseline	17.7	16.4 – 48.4	12.7 – 21.7
J 1 st Ave	West Seattle via 1 st Ave S	Spring '12	13.4	10.2 – 16.9	10.4 – 14.9
		Fall '11	12.8	10.6 – 18.9	10.5 – 15.8
		Baseline	15.9	11.9 – 20.7	12.4 – 21.0
J AWV	West Seattle via AWV	Spring '12	25.2	15.3 – 29.6	19.3 – 33.0
		Fall '11	23.8	13.3 – 31.9	17.8 – 30.6
		Baseline	30.1	20.1 – 36.6	22.1 – 33.8
CBD	2 nd - 5 th Avenues	Spring '12	7.3	5.3 – 9.8	5.0 – 9.4
		Fall '11	7.3	4.8 – 10.2	3.9 – 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 2012 Highlights

During the Spring 2012 reporting period, a new significant impact began with the lane closure on Aurora Avenue between Mercer and Denny beginning March 5 and ending April 12. This impact affected all routes using SB Aurora Avenue for roughly half of the reporting period. In anticipation of this impact, routes were detoured via Valley Street and 5th Avenue N to avoid the bottleneck. The lane closure and detour added 2-4 minutes of travel time all day to these routes; this impact is shown in detail at the end of this section.

To the south, there are no new significant impacts over the previous reporting period. Now that the Wosca detour has been in place for a while, some traffic seems to have shifted away from the AWW on onto surface streets, particularly during the AM peak.

J Pathways

The previous reporting period showed a significant increase in travel time in the inbound direction during the AM peak, due to the bottleneck formed by the Wosca detour. This affected pathways both on the AWW, with travel time increases between 5-7 minutes, and on surface streets. This travel time spike on AWW pathways has decreased somewhat in Spring 2012, but 1st Avenue pathways have become worse. Compared to baseline conditions, AM peak travel times on the AWW have increased 6-8 minutes and 1st Avenue pathways have increased 4-6 minutes.

B pathways

Pathways B.1 and B.2 in the inbound/southbound direction have been impacted by the lane closure on SB Aurora Avenue between Mercer and Denny. The lane closure ended roughly halfway through the reporting period, however ongoing construction is continuing to impact these routes. Other A and B pathways continue to see elevated travel times during peak periods due to diversion of SR-99 traffic to surface streets. These effects are illustrated on the individual pathway summaries in Appendix A.

Additional highlights of changes in travel time and travel speeds observed in Spring 2012 compared to the Fall 2011 and baseline conditions are noted below. See Appendix A for details.

- The A Pathways show slight improvements in median travel speeds during peak hours compared to Fall 2011 conditions, but mid-day travel time and overall travel speeds have deteriorated somewhat. Commuter traffic is likely finding alternative routes around bottleneck locations and shifting travel to off-peak periods.
- Pathway B.4, which has been impacted by the Mercer project, has shown significant improvement this period during the PM peak.
- I pathways have shown relative improvement in overall travel speeds due to the Spokane Viaduct construction wrapping up, particularly in the outbound direction. The inbound directions have shown some reliability problems, particularly in the AM, due to traffic diversion from the AWW.
- J pathways using 1st Avenue S continue to show poor travel time and reliability performance in the outbound direction compared to baseline conditions, due to the reroute via the Hanford Street rail crossing and the Spokane Street Lower Level Bridge. This condition will persist through Summer 2012.
- Pathway CBD2 shows some improvement in median travel time during the late afternoon and PM hours, which is likely linked to the improvement in peak congestion on the AWW, since this congestion tends to spill back onto 2nd Avenue. Reliability on 2nd Avenue, however, continues to be poor, due to impacts from special events and friction from general traffic that occurs in the single bus lane along that corridor.
- Pathway CBD3 has shown consistent running times across all reporting periods, due to the bus priority treatments in place on that corridor. The slight variation shown this period is likely due to the substitution of AVL data for AVI data on the north endpoint of this corridor (Stewart Street).

- Pathway Columbia has shown continued improvement since Fall 2011, when the new bus lane and queue jump signal were implemented at 1st & Columbia. Moving the merge point from three to two lanes on SR-99 to a point upstream of the Columbia Ramp has also contributed to the improvement on 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 some improvement in peak period travel time compared to Fall 2011, but peak travel times are still well above baseline conditions. Compared to baseline, inbound travel times are up to 6 minutes longer during the AM peak hour, and about 3 minutes longer during the PM peak in both directions. Note that the route 21X does not follow the J.3 pathway exactly, but parallels a significant portion of it.

Route 56X [Pathway J.7] – Pathway J.7 is a peak-only pathway using the AWW that has similar performance as other J pathways using the AWW. This pathway, however, does not receive benefit from the Avalon Way bus lane, as other J pathways do. Compared to baseline, AM travel times are up to 7 minutes longer during the AM peak hour. PM travel times, however, have performed better.

Route 121 [Pathway I.1] – Pathway I.1 is also a peak-only pathway, with limited reverse-peak trips, that also has also been impacted significantly by the Wosca detour during the AM peak flow. Although some improvement is measured this period, AM travel times are still about 2 – 4 minutes longer compared to baseline.

Route 120 [Pathway J.5] – Pathway J.5, like other J pathways using the AWW, has shown some improvement during peak periods but is still worse than baseline. AM peak travel times in the inbound direction are 5 – 6 minutes longer compared to baseline.

Route 18X [Pathway A.2] – Pathway A.2 has shown mixed results. Inbound travel times have increased slightly this period while outbound travel times have decreased slightly.

Route 358 [Pathway B.1] – Pathway B.1 has been impacted by the lane closure on southbound Aurora Avenue and travel times in that direction have increased by 2 – 4 minutes all day. The outbound direction has seen some improvement during the PM peak and is about 1 – 2 minutes faster compared to baseline, thanks to Bus lanes installed on Battery Street.

EFFECTS OF THE SOUTHBOUND AURORA AVENUE LANE CLOSURE

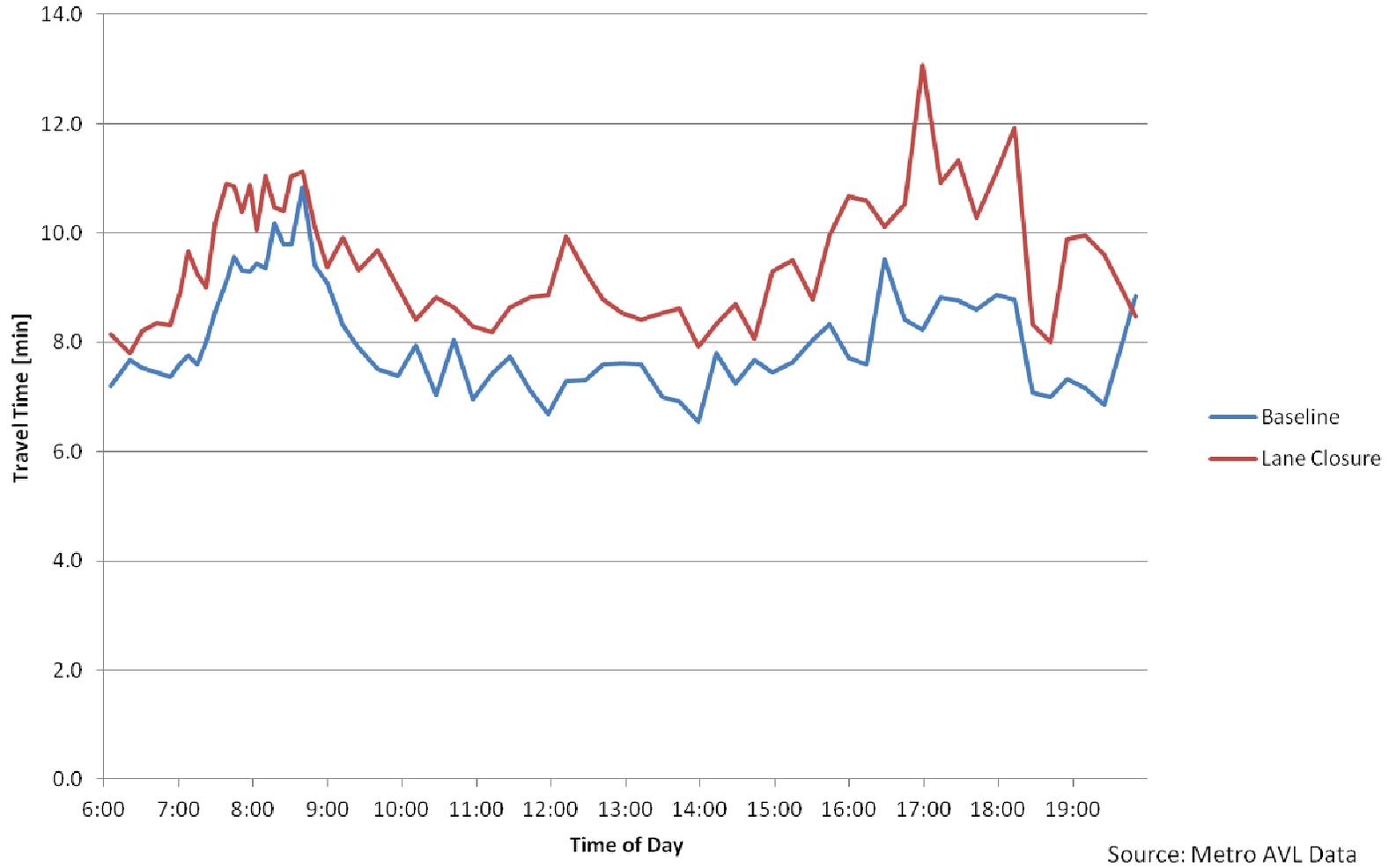
Between March 5 and April 12, one southbound lane was closed on Aurora Avenue between Mercer and Denny Streets. In anticipation of this impact, bus routes using SB Aurora Avenue were detoured around the bottleneck and sent via Valley Street and 5th Avenue N to rejoin the normal route on 3rd Avenue. The result of the lane closure and detour are shown in the chart below.

The chart shows travel times increased by 2-4 minutes all day. Although this impact ended on April 12, additional lane closures are anticipated to occur as a result of the Mercer and North Portal projects. A new bus lane was installed in Summer 2012, which should eliminate the need for future detours due to these anticipated lane closures.

Southbound Aurora Ave Travel Time Comparison

Aurora & N 46th St to 6th Ave & Wall St

5-Week Average: Baseline (1/17/12 - 2/17/12) & Lane Closure (3/5/12 - 4/9/12) conditions



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

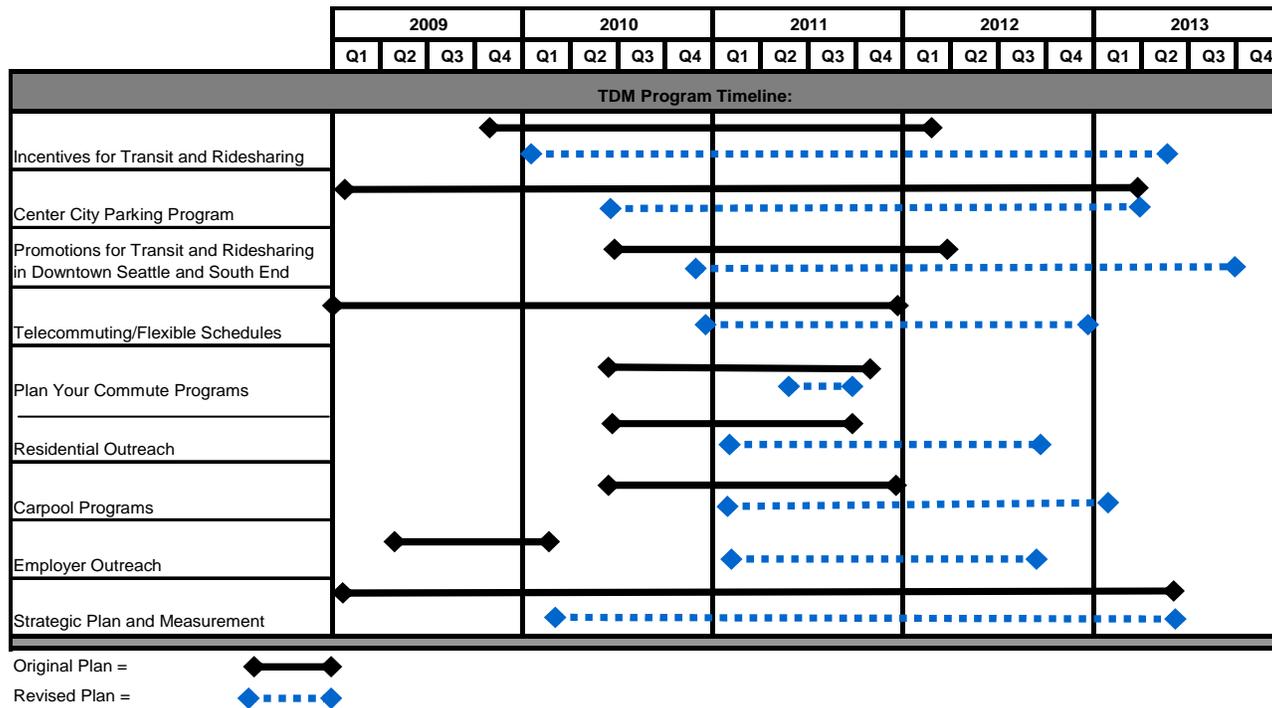
TDM Project Definitions for Downtown Seattle and the South End SR 99 Corridor	
Program	Description
Incentives for Transit and Ridesharing \$343,520 WSDOT	Provide a minimum of 2,500 transit pass incentives to downtown Seattle employers.
Reduce Single Occupancy Vehicles (SOV) Commuter Parking \$225,000 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, Center City Parking, and the Metro funded Incentives for Transit began in 2010. The program schedule is below:

TDM Table 2



TDM Program Update and Performance

During the March to June 2012 quarter, the Transit Incentives and Carpool Program tasks continued. King County Metro planned Transit Promotions and Residential Outreach efforts to support the introduction of the C and D Rapid Ride Lines and the September network improvements. Listed below in TDM Table 3 are the TDM program updates for March to June 2012.

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 AWW 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.

The 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; additional revisions for the Telework program will be completed by the next report. Revised performance spreadsheets (and data) are available in the appendix for all TDM tasks.

TDM Table 3

TDM Program Update – (February 2012 – June 2012)	
Incentives for Transit and Ridesharing	<p>Performance: As of June, 273 trips were reduced though incentives for transit and ridesharing exceeding the revised trip reduction target of 240.</p> <p>Activities: Incentives continue to be offered in the Center City for first year Passport purchases. There were 216 incentives/passes distributed from April to June 2012. Five out of the required 5 parking incentives have been awarded.</p>
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	<p>Performance: As of June, 27 trips have been reduced and 2,063 long-term parking spaces have been reduced.</p>
Promotions for Transit and Ridesharing	<p>Performance: The Promotions trip target of 1,100 has been exceeded with 4,784 trips reduced.</p> <p>Activities: There were no promotions activities during the Spring 2012 service period. Staff began planning for outreach to be conducted Fall 2012 in Ballard and in West Seattle when new services, including the inauguration of the C and D Rapid Ride lines will be available to provide enhanced transit options to commuters in the AWV corridor.</p>
Teleworking/Flexible Schedules	<p>Performance: WSDOT and King County Metro staff have revised the performance measurement methodology based on changes to data availability and project approach. Employees from one of the participating companies completed a program survey that was used to estimate that 88 trips were reduced as a result of the telework program. Staff will continue to update the performance measurement methodology for the remaining companies who elected not to participate in a telework survey.</p> <p>Activities: Program development with Seattle Housing Authority, EPA, Port of Seattle and King County. Reviewed and updated the telework program survey in collaboration with WSDOT staff to improve the survey's future application in estimating trip reduction.</p>
Plan Your Commute	<p>Performance: WSDOT and King County Metro staff have revised the performance measurement methodology based on changes to data availability and project approach. The program reduced 33 trips.</p> <p>Activities: Work on this task was completed in June 2011, 83 of the 36 required events were held and more than 15 thousand pledges in Rideshare Online, more than exceeding the 1,800 required. Benefits of this task are on going.</p>
Residential Outreach	<p>Performance: WSDOT and King County Metro staff have revised the performance measurement methodology based on changes to data availability and project approach. The program reduced an average of 120 weekday round trips during peak hours daily, 89 trips during non-peak hours and 122 daily trips on weekends.</p> <p>Activities: Planning began for two new Residential Outreach projects to be conducted in Fall 2012 when new services will be available to provide enhanced transit options to commuters in the AWV corridor. These include a return of the program in West Seattle, which will capitalize on the launch of Rapid Ride Line C and the associated service restructure, and a new Northwest Seattle project, which capitalizes on the launch of the RapidRide D line and associated service restructure.</p>

<p>Carpool Program</p>	<p>Performance: The Carpool Program has reduced 355 trips, just below the target of 370 trips reduced. Activities: Continued promotions to the public and commuters through at work transportation events, e-mail updates and RideshareOnline.com promotions.</p>
<p>Employer Outreach</p>	<p>Performance: WSDOT and King County Metro staff have revised the performance measurement methodology based on changes to data availability and project approach. As of June the program has reduced 1,225 trips. Activities: Planning for employer outreach in the AWV shed regarding the launch of the C and D RapidRide Lines. Outreach will take place in fall 2012. Continuing to follow up on employer leads that come in via AWV postcards and website.</p>

Three TDM Tasks have met their contract targets:

- Promotions: with a trip reduction target of 1,380 trips, the Promotions of Transit and Ridesharing has reduced 4,784 trips so far.
- Incentives: with a trip reduction target of 236 trips, the Incentives for Transit and Ridesharing has reduced 273 trips so far.
- Employer Outreach: with a trip reduction target of 100 trips, the Employer Outreach has reduced 1,225 trips so far.

To date, of the 4,130 trips targeted for reduction, over 6,905 trips have been converted, exceeding the trip reduction target by 67%. This does not include all trip reductions associated with the Telework task, whose performance methodology is being revised.

TDM Impacts: Table 4.

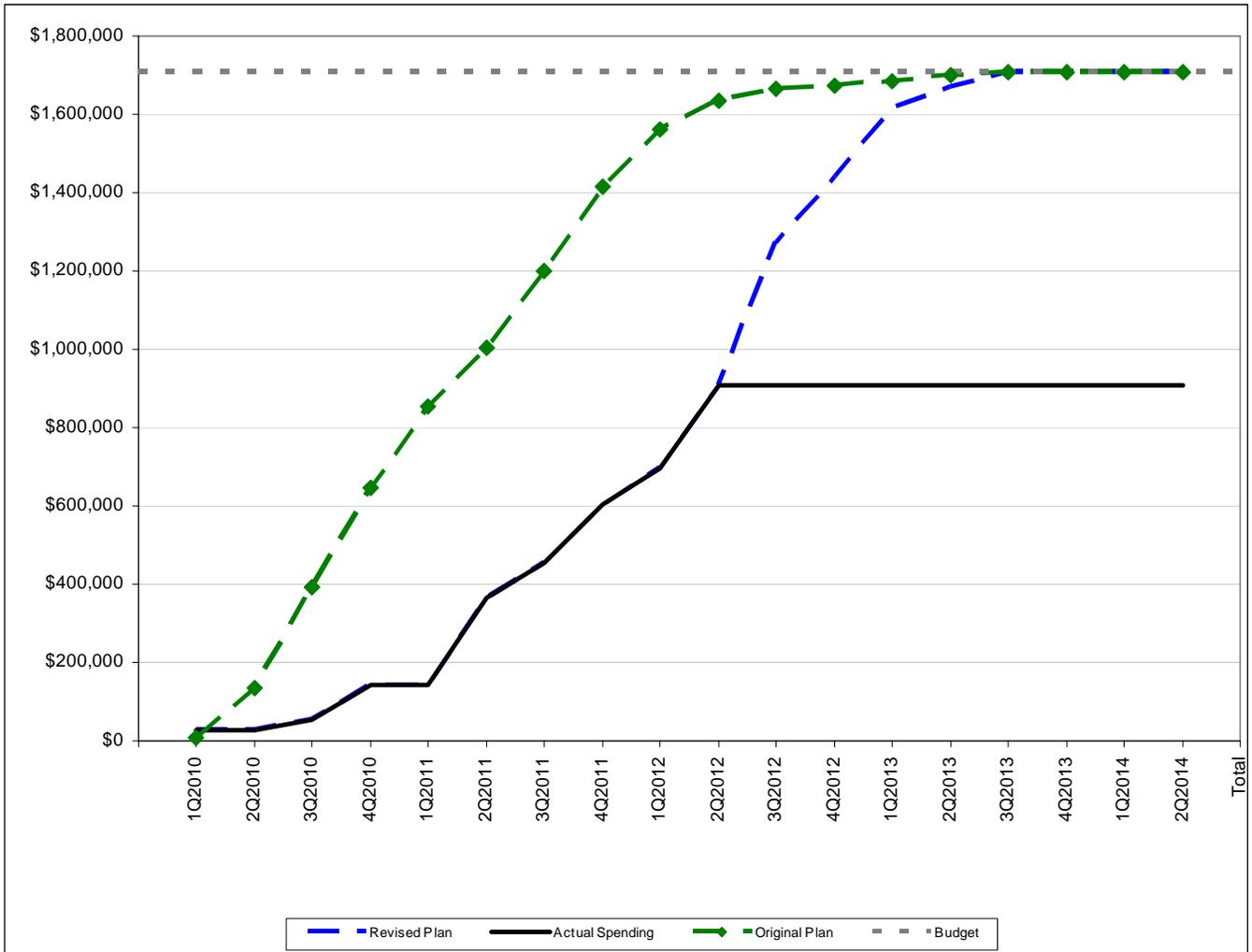
Activity	Trip Reduction (round trips reduced daily)		Individual Metrics		
	Target for entire program period	Current performance	Description	Target for entire program period	Current performance
Promotions for Transit and Ridesharing	1,380	4,784	Households / Employees	165,000	154,934
Incentives for Transit or Ridesharing	236	273	Transit Pass Incentives	2,284+	4,092
			Incentives to Garages	5	5
Carpool Program	370	355	Carpool Incentives	2,000	4,162
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	200	27	Net Reduction of Downtown Long-Term Parking Spaces	2,000	2,063
Residential Outreach	390	120	Household Participation Rate	10%	10.7%
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	88*	Number of Companies Participating	15-20	15
Employer Outreach	100	1,225	Transit Passes Distributed	N/A	458
TOTAL	4,130	6,905			

***Trip reduction totals for the Telework task will be updated in the next report to reflect the performance of programs at additional companies whose performance measurement methodology is being revised.**

TDM BUDGET AND EXPENDITURE – FEBRUARY 2012

The estimated cash flow as of February 2012 by quarter is listed in the table below. Metro is reviewing the information in this table and will provide an update for the next report.

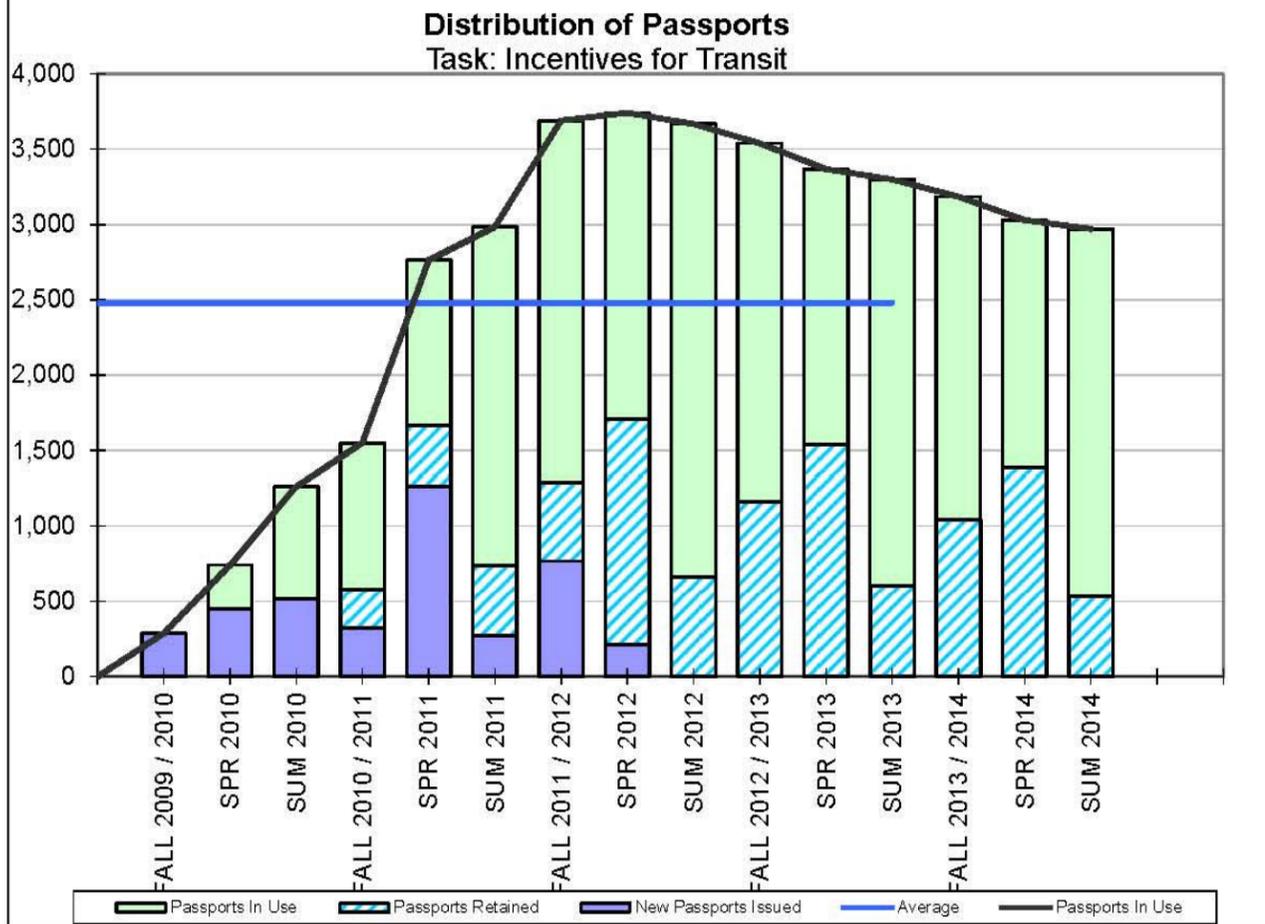
TDM Table 5



Task: Incentives for Transit
Task Lead: Kathy Koss

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	
FALL 2009 / 2010		288			288	2,481	
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			740	666	3,668		
FALL 2012 / 2013			1,287	1,158	3,539		
SPR 2013			1,714	1,543	3,367		
SUM 2013			666	600	3,301		
FALL 2013 / 2014			1,158	1,043	3,185		3,079
SPR 2014			1,543	1,389	3,031		
SUM 2014			600	540	2,971		
Total	5	4,092					

Average Daily Round Trips Reduced Through Distribution of New Passports

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

$$= ((44.0\%) - (33.0\%)) * (2,481) = \mathbf{273}$$

Task: Carpool Program
Task Lead: Tom Devlin

Target	
370	Trips Reduced
2,000	Carpool Incentives

	Service Period	Reported Trips by Mode					Telework		Commute Days in Service Period	Carpool Incentives Distributed
		Carpool	Bus	Bike/Walk	Vanpool / Vanshare	Train				
Program Period (Service Change, Year)	SPR 2010									
	SUM 2010									
	FALL 2010 / 2011									
	SPR 2011	45,595			131,127				88	1,216
	SUM 2011	65,174			92,793				77	733
	FALL 2011 / 2012	82,423			97,016				96	1,508
	SPR 2012	61,014			68,480				78	705
	SUM 2012									
	FALL 2012 / 2013									
	SPR 2013									
	SUM 2013									
% of Reported Trips Resulting in Trip Reductions by Mode		50%	97%	100%	88%	98%	100%	Total	339	4,162
Participants Newness to Alternate Mode by Type*		36%	36%	36%	57%	36%	36%			
Total Trip Reduction (see formula below)		67	0	0	288	0	0	355		

Total Trip Reduction =

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

* 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: Plan Your Commute
Task Lead: Kathy Koss

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

E-Purse Reductions

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

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

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

Task: Telework / Flexible Schedules - Russell Investments
Task Lead: Sunny Knott

Target	
710	Trips Reduced
15	Companies Participating

Total Number of Employees at Company **910**

Mode	Number of Reported Trips in a Typical Week						Estimated Number of Trips Teleworkers Would Have Taken in a Week Without Telework Option	Resulting Daily Round Trip Reduction
	All Respondents 545 respondents		Non-Teleworkers 351 respondents		Teleworkers 194 respondents			
Drive Alone	187	7.4%	138	8.7%	49	5.1%	83	11
Bus	1,322	52.0%	972	61.2%	350	36.6%	585	-76
Train	441	17.3%	242	15.2%	199	20.8%	146	17
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	-13
Telework	289	11.4%	0	0.0%	289	30.3%	0	97
Compressed Work Week	4	0.2%	1	0.1%	3	0.3%	1	1
Total	2,542		1,587		955			88*

% 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

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

*Resulting daily round trip reduction equals the sum of

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

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

Target	
100	Trips Reduced

Total Round Trips Reduced

$$= \left(\begin{array}{c} \text{Average Daily Round Trips} \\ \text{Reduced Through} \\ \text{Distribution of New Passports} \end{array} \right) + \left(\begin{array}{c} \text{Average Daily Round Trips} \\ \text{Reduced Through} \\ \text{Increased Use of Existing Passports} \end{array} \right) = (23) + (1,202) = \mathbf{1,225}$$

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

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

$$= ((44.0\%) - (33.0\%)) * (205) = \mathbf{23}$$

Average Daily Round Trips Reduced Through Increased Use of Existing Passports

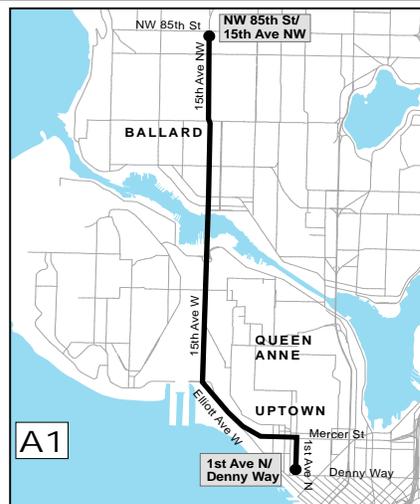
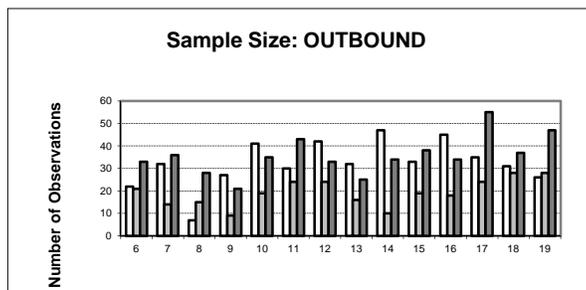
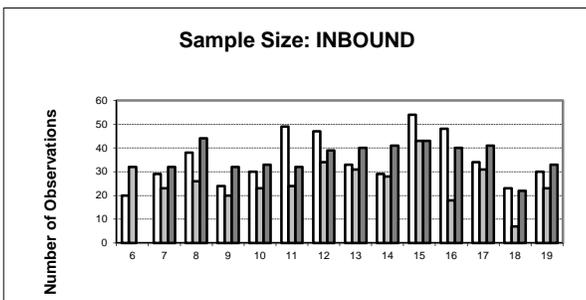
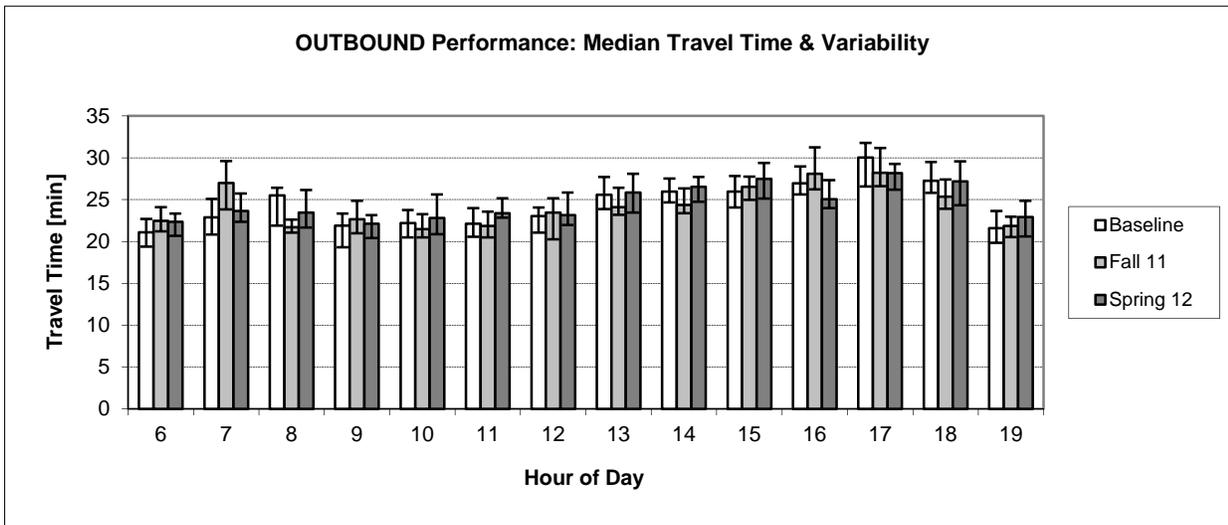
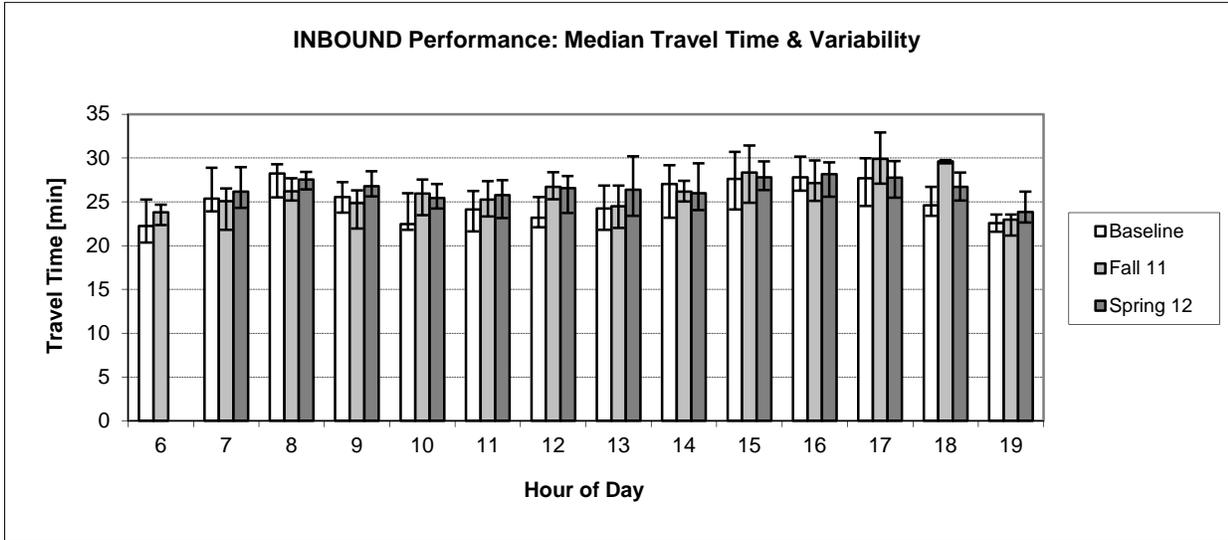
$$= \left(\begin{array}{c} \text{Number of} \\ \text{Passports} \\ \text{Before Program} \end{array} \right) * \left(\begin{array}{c} \text{Additional Annual} \\ \text{One-Way Transit Trips} \\ \text{Per Passport During Program} \end{array} \right) * \left(\begin{array}{c} \text{1 Round Trip} \\ \text{2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

	Service Period	New Passports Issued	Passports Expiring	Passports Retained	Passports In Use	Average Passports In Use
Program Period	WIN 2009 / 2010				0	205
	SPR 2010				0	
	SUM 2010				0	
	WIN 2010 / 2011		0	0	0	
	SPR 2011	60	0	0	60	
	SUM 2011	108	0	0	168	
	WIN 2011 / 2012	175	0	0	343	
	SPR 2012	115	60	54	452	
	SUM 2012		108	97	441	
	WIN 2012 / 2013		175	158	424	
	SPR 2013		169	152	407	
SUM 2013		97	87	397		
Post Program Period	WIN 2013 / 2014		158	142	381	370
	SPR 2014		152	137	366	
	SUM 2014		87	79	357	
	Total	458				

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

Pathway A.1

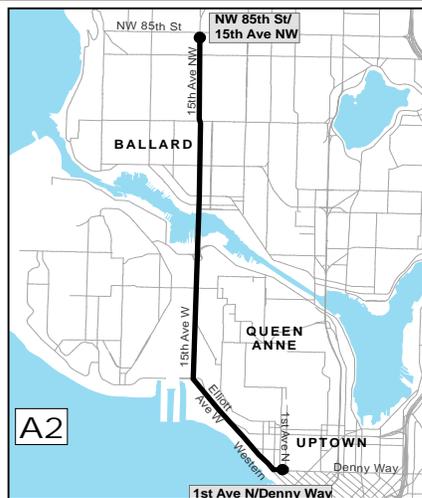
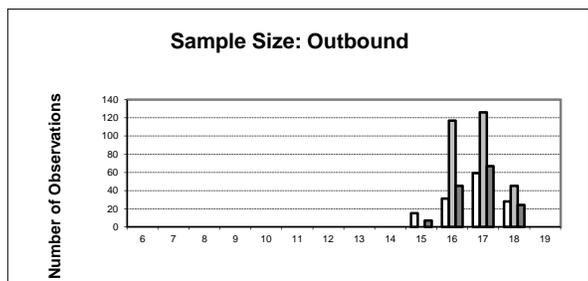
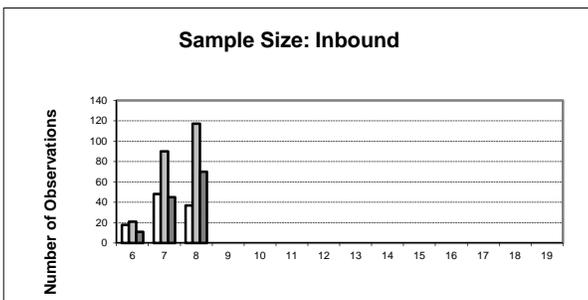
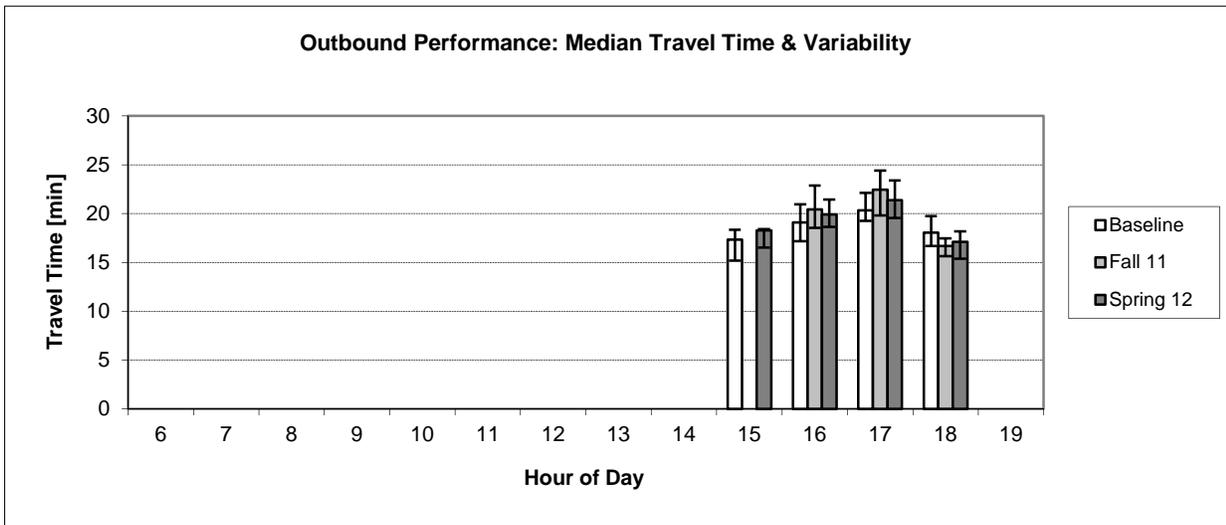
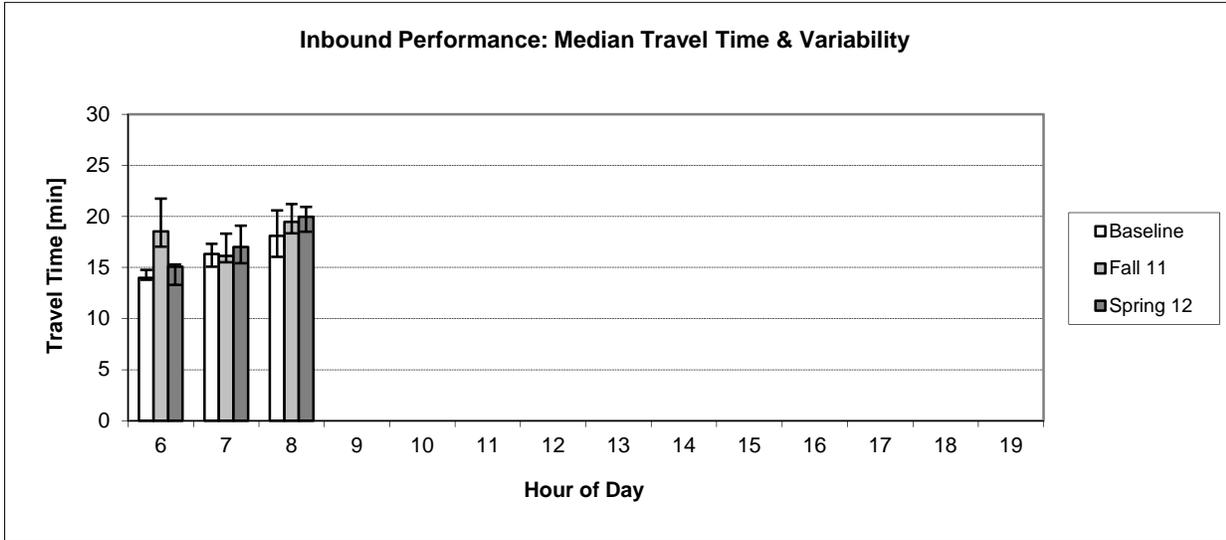
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Mercer



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway A.2

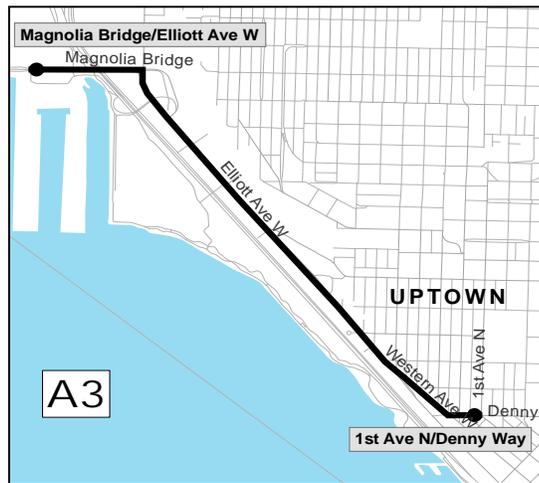
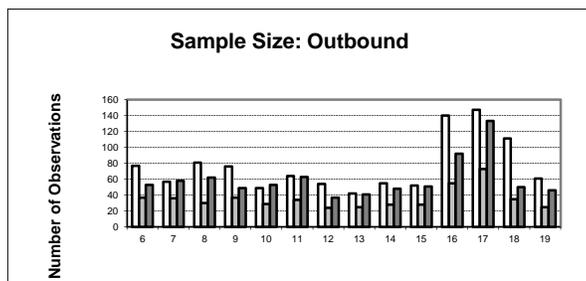
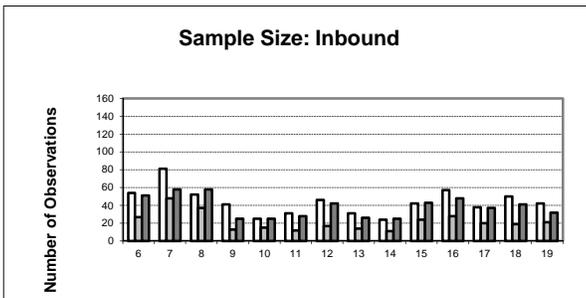
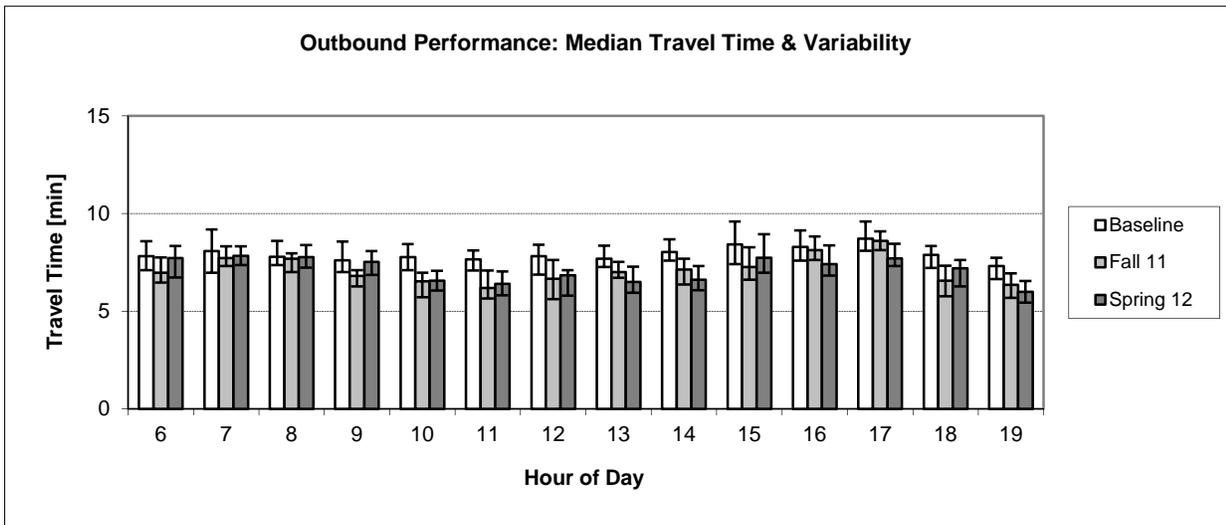
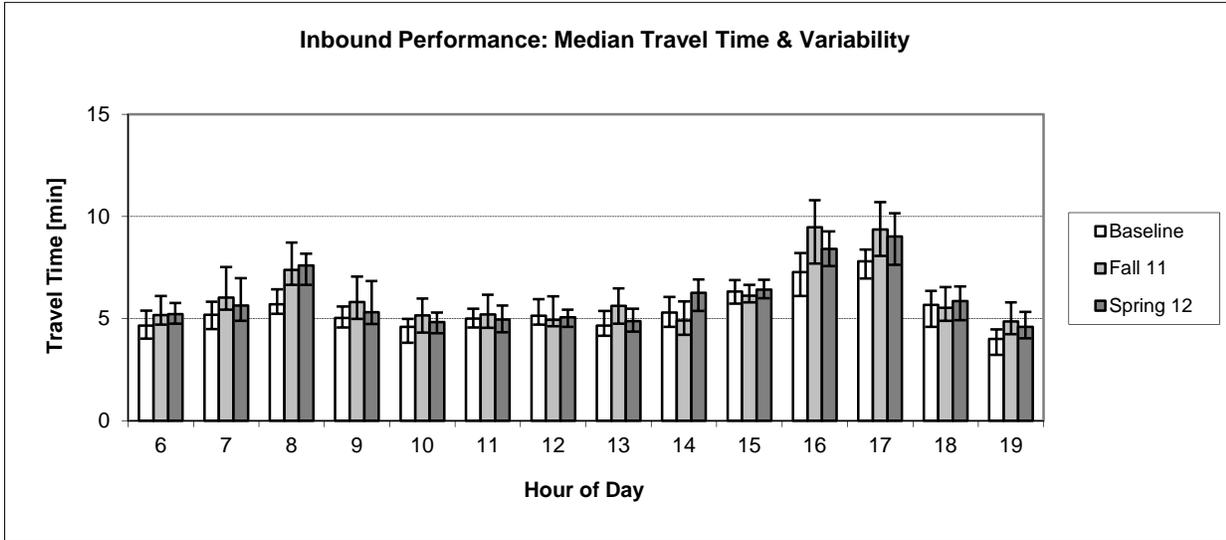
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Western (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway A.3

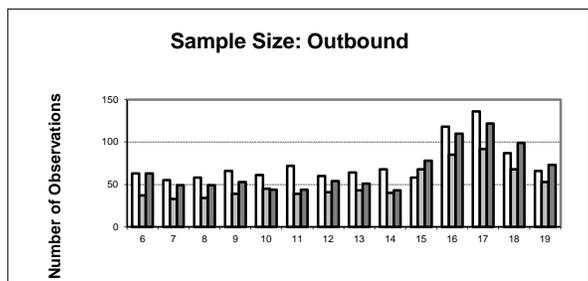
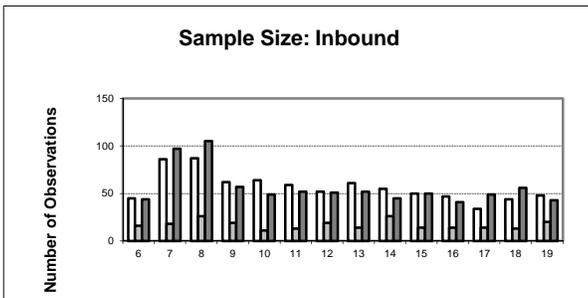
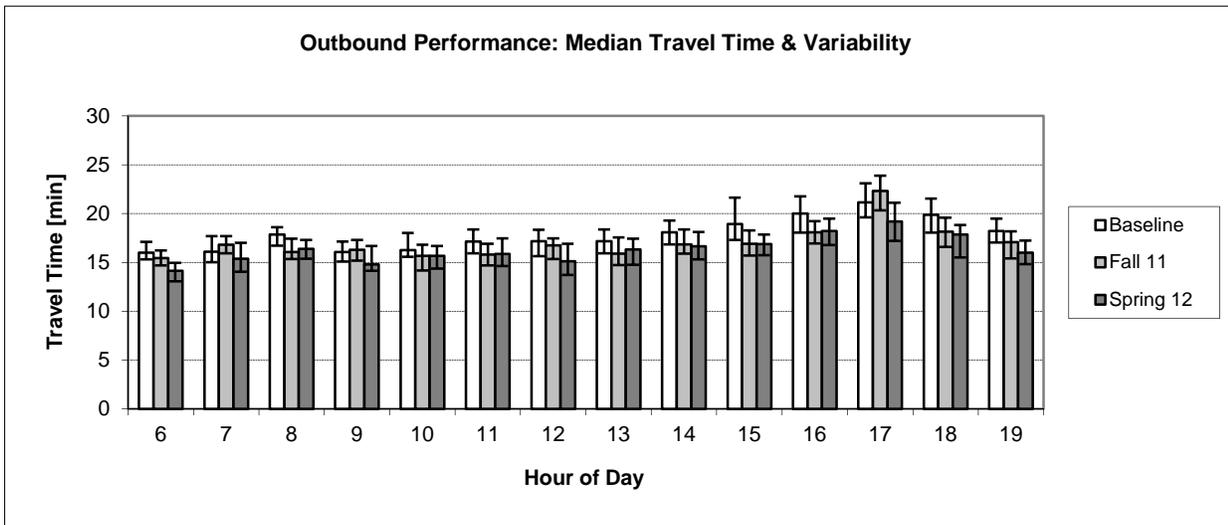
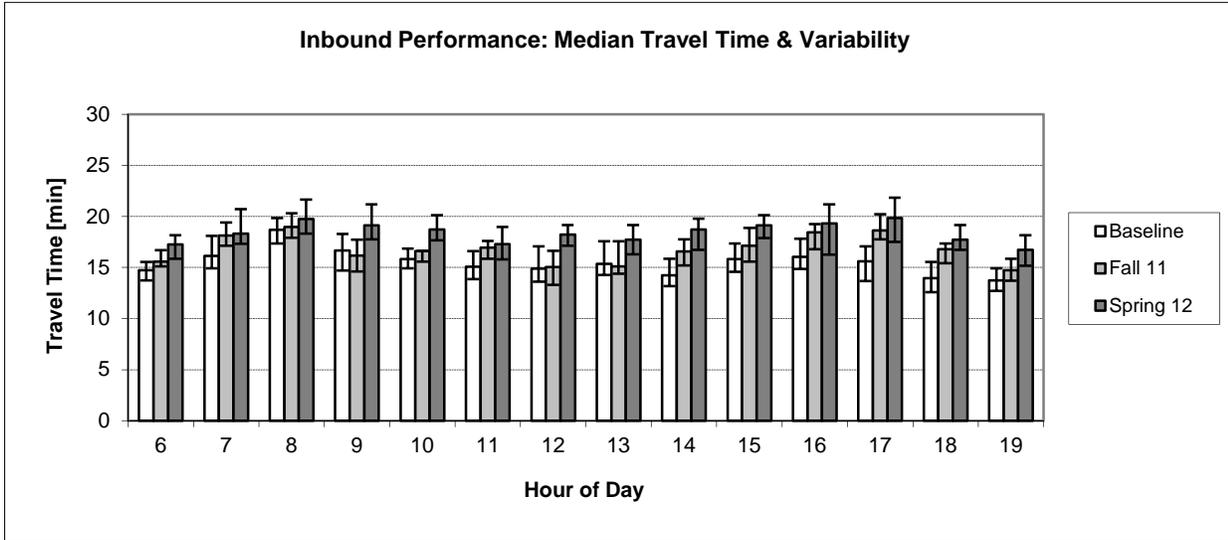
Magnolia Bridge to 1st Ave & Denny Way via Elliott/Western



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway B.1

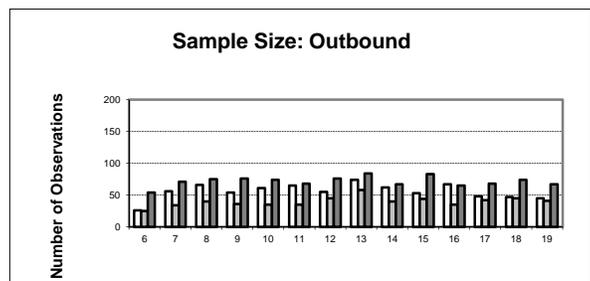
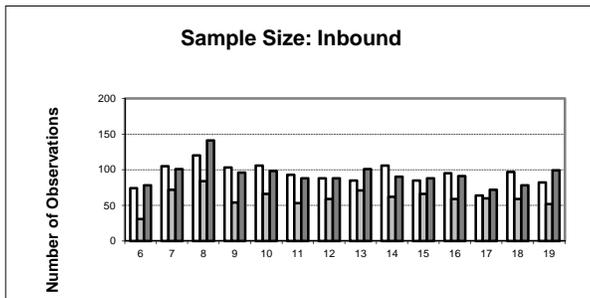
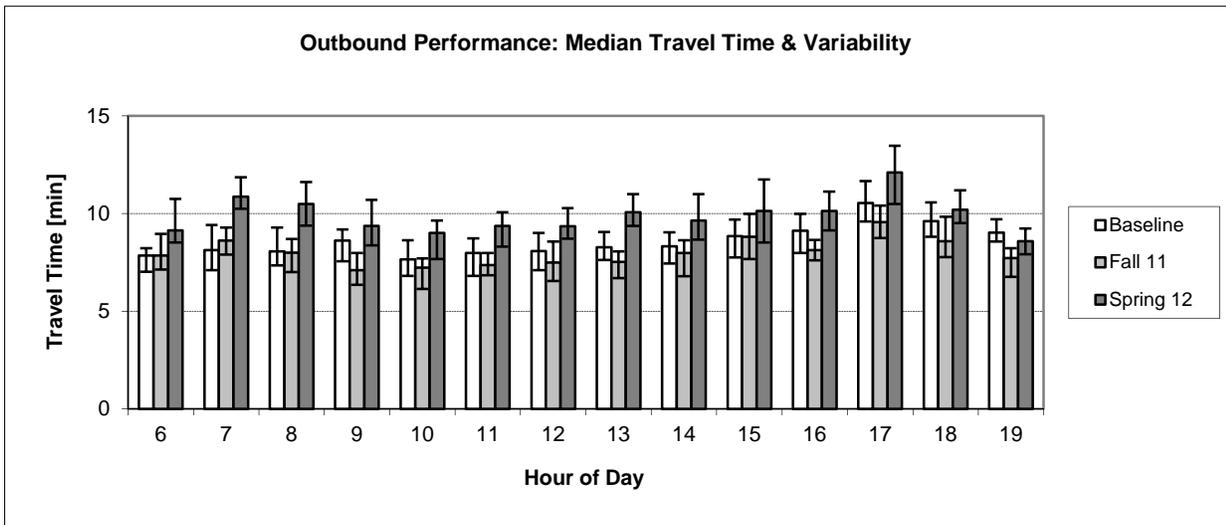
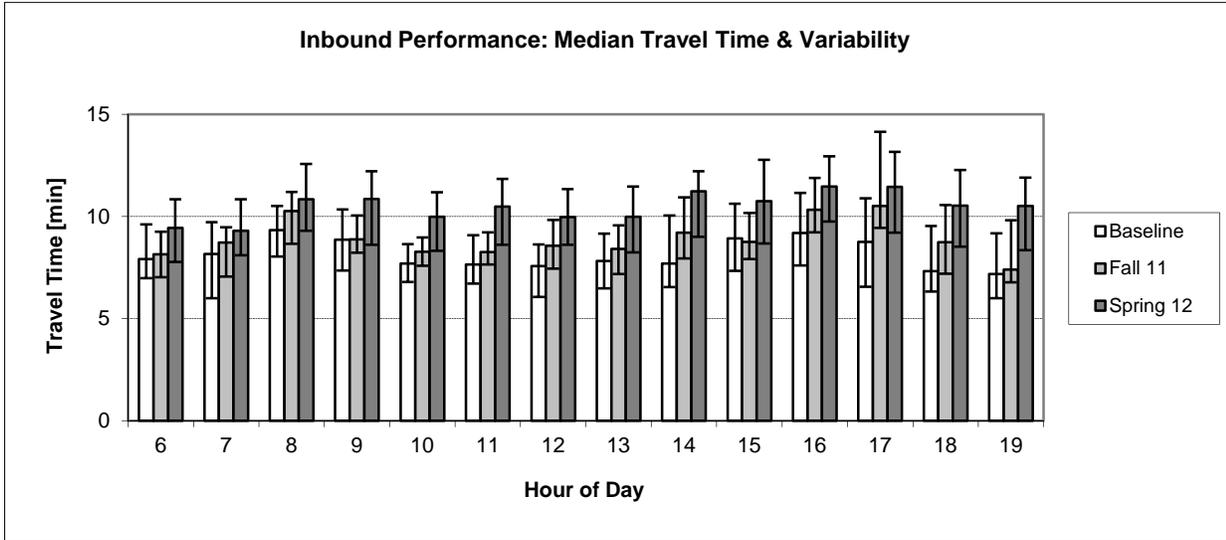
Aurora Ave N & N 85th St to 3rd Ave & Battery St via Aurora Ave



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL

Pathway B.2

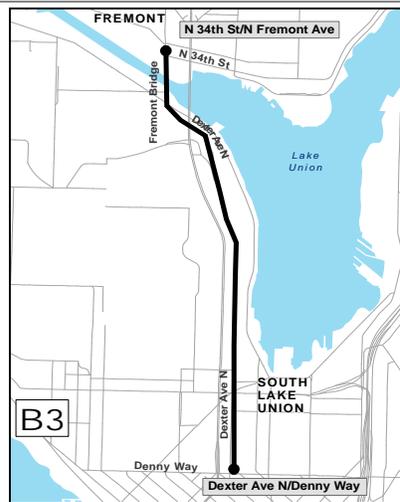
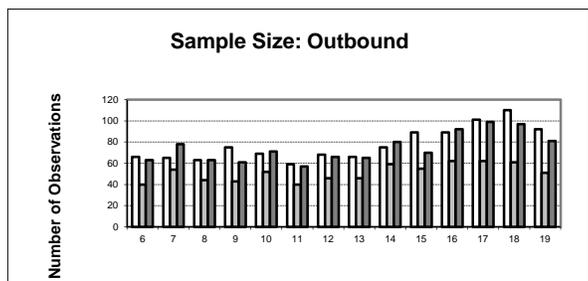
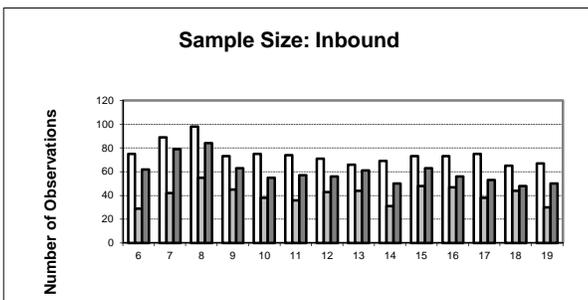
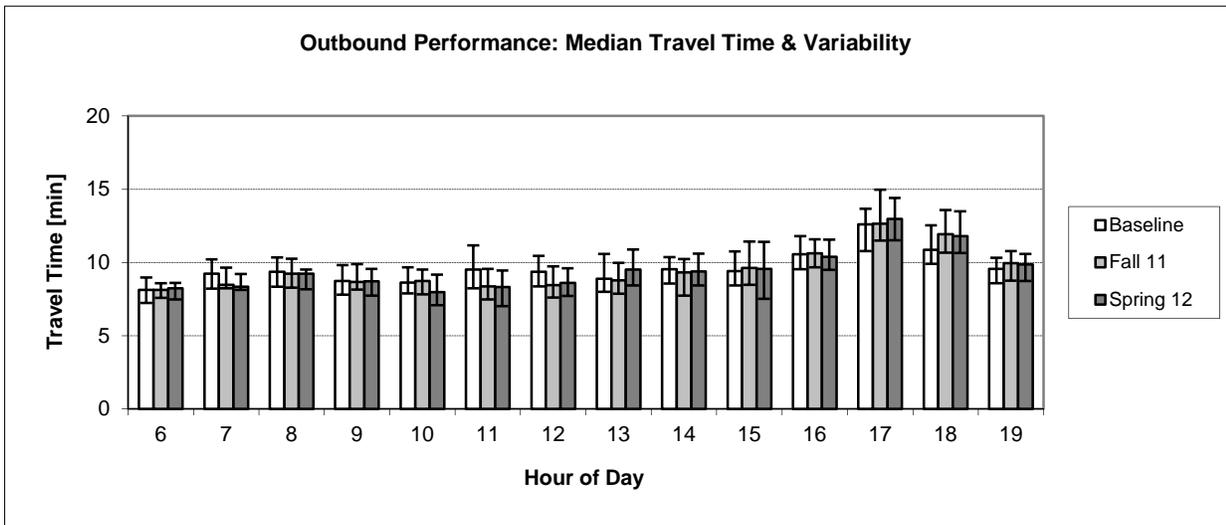
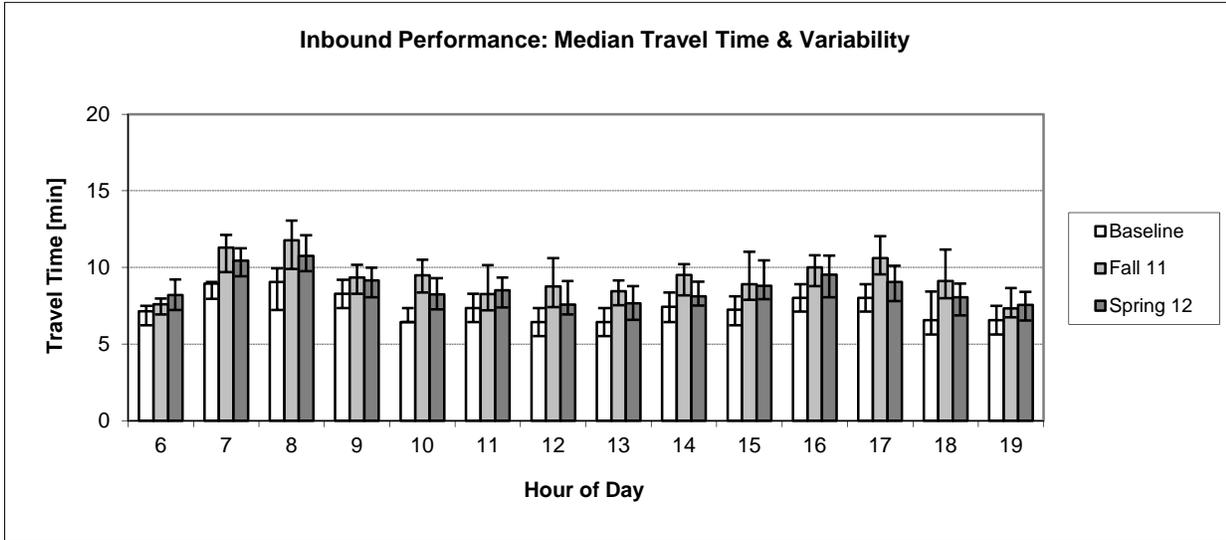
Bridge Way & N 38th St to 3rd Ave & Battery via Aurora Ave



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL

Pathway B.3

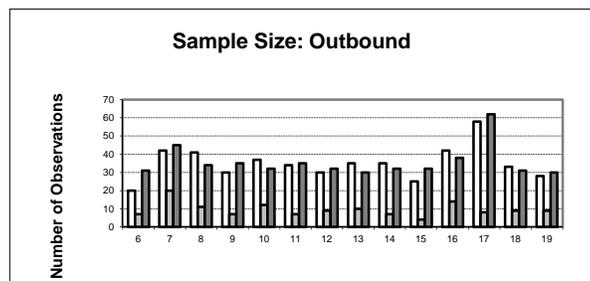
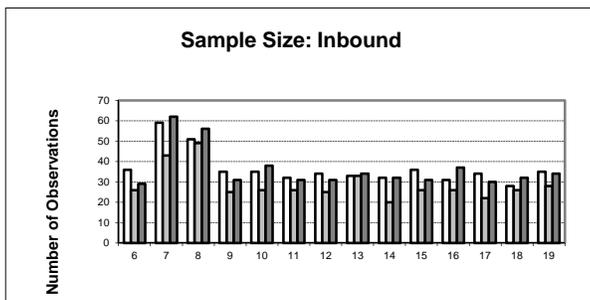
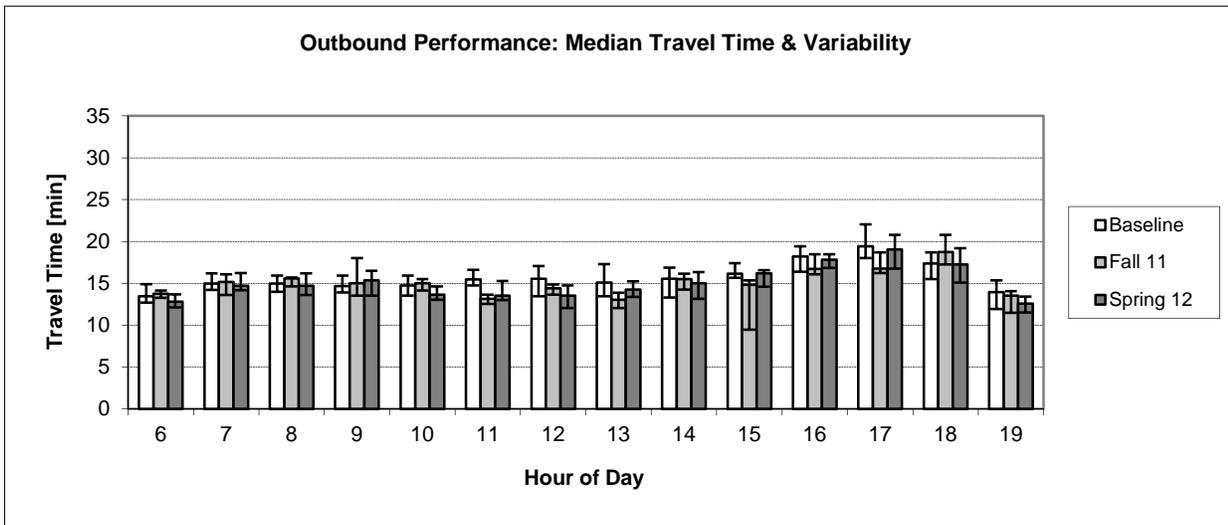
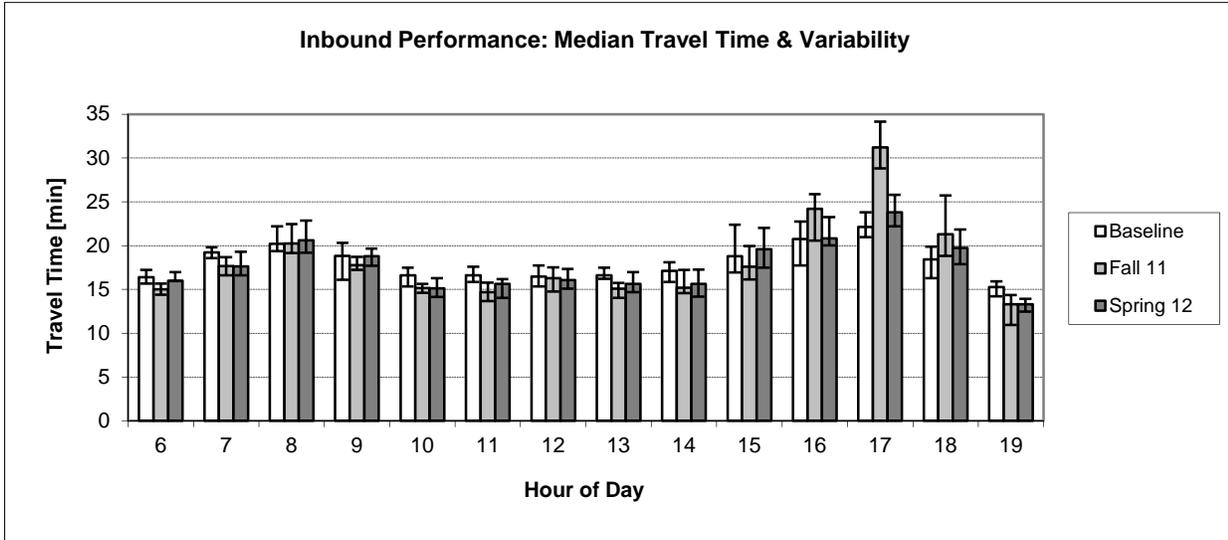
Fremont Ave N & N 34th St to Denny Way & Dexter Ave via Dexter



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 11	10/31/11 - 11/18/11	AVL
Spring 12	4/2/12 - 4/27/12	AVL

Pathway B.4

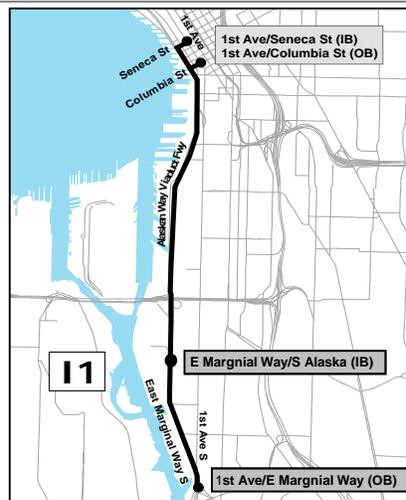
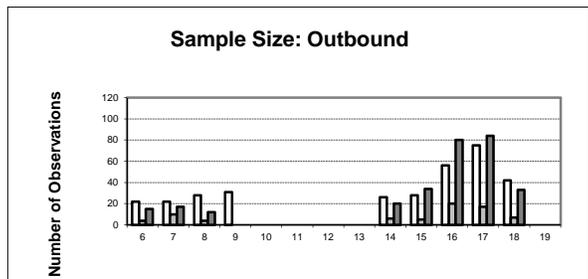
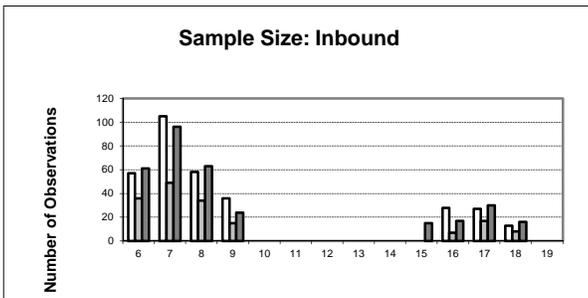
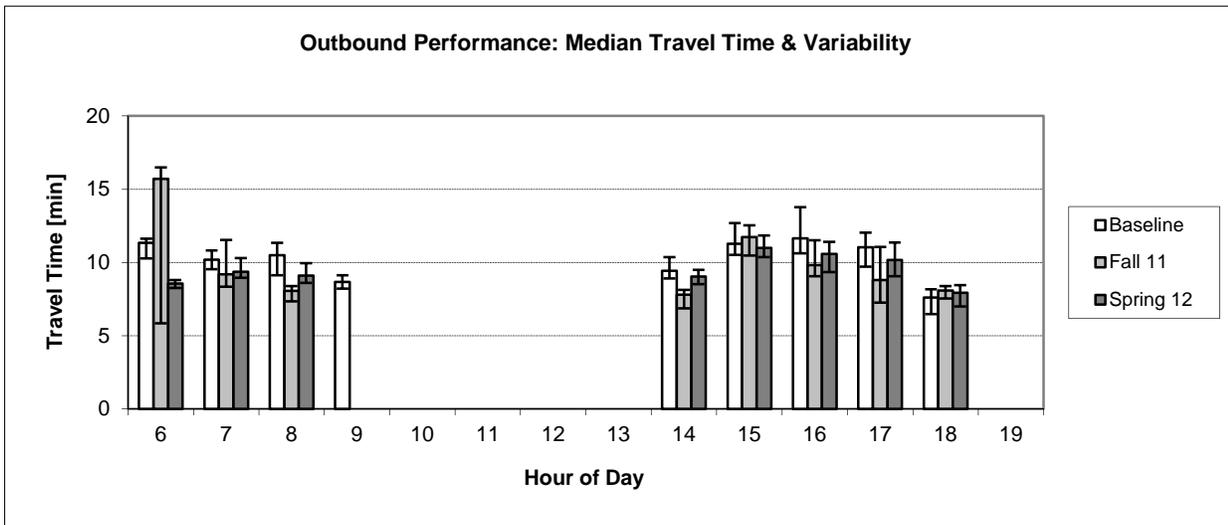
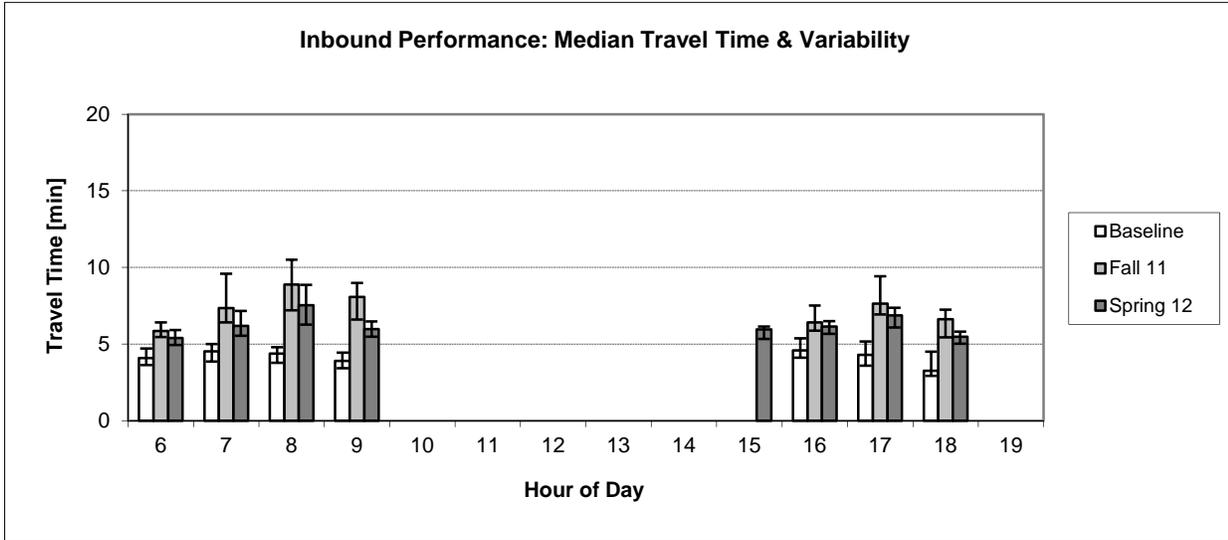
Ballard Bridge to Denny Way & Westlake Ave via Nickerson/Westlake



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 11	10/31/11 - 11/18/11	AVL
Spring 12	4/2/12 - 4/27/12	AVL

Pathway I.1

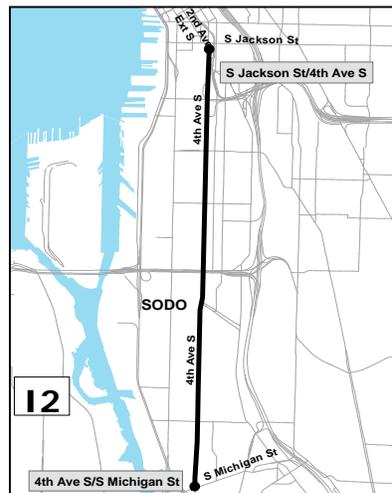
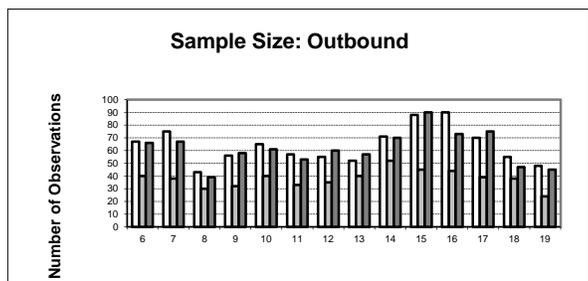
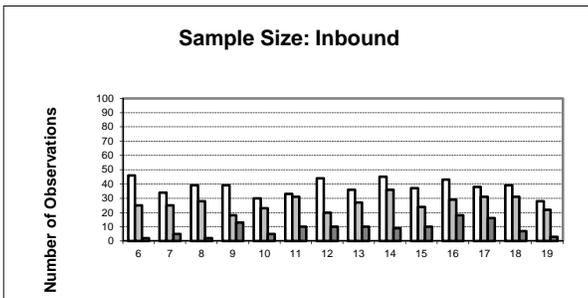
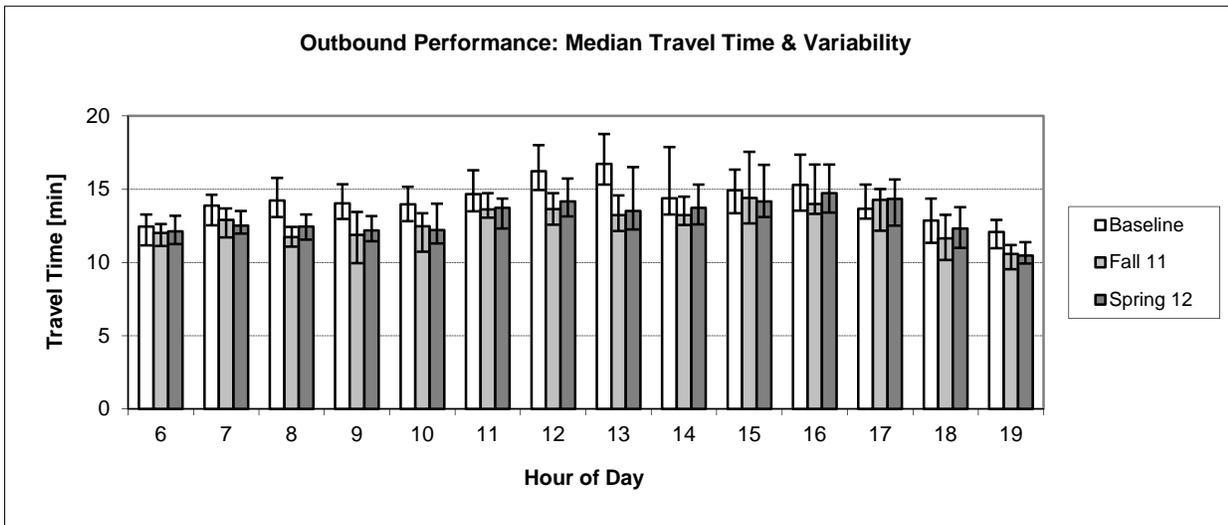
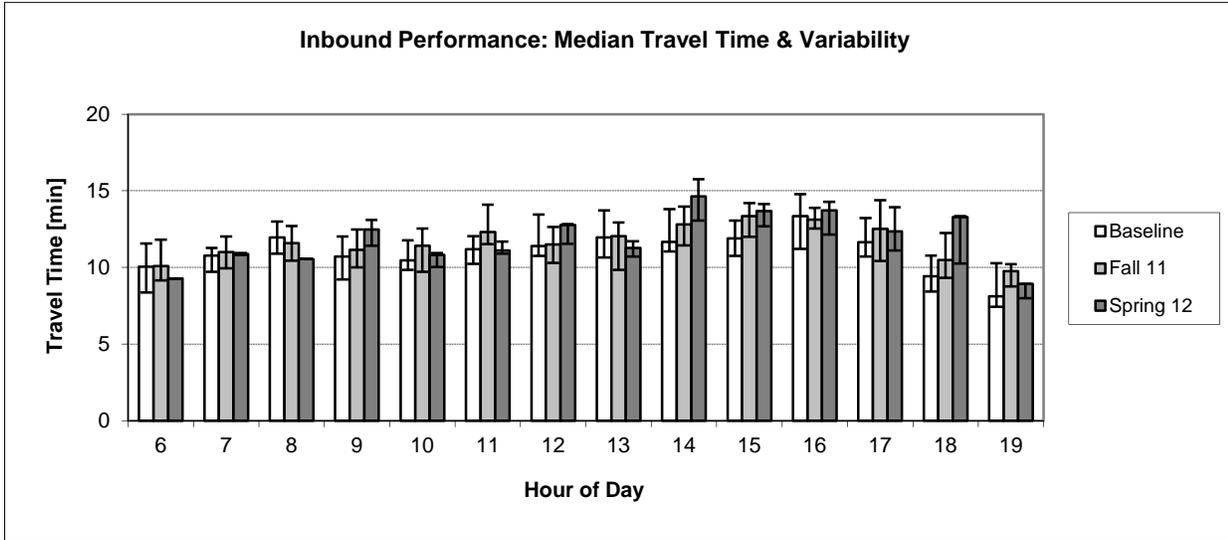
East Marginal Way & 1st Ave/Alaska St to 1st Ave & Seneca/Columbia St via Marginal/AWV



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway I.2

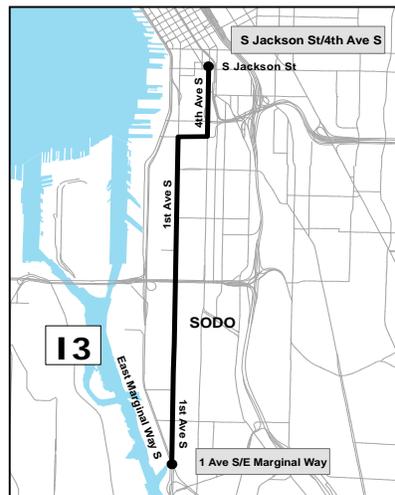
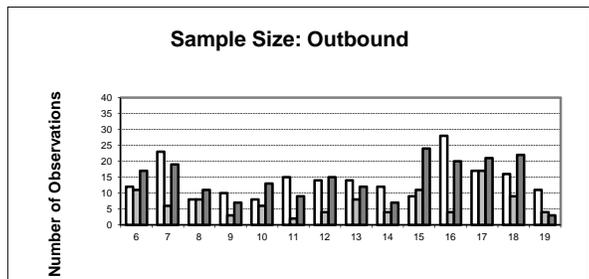
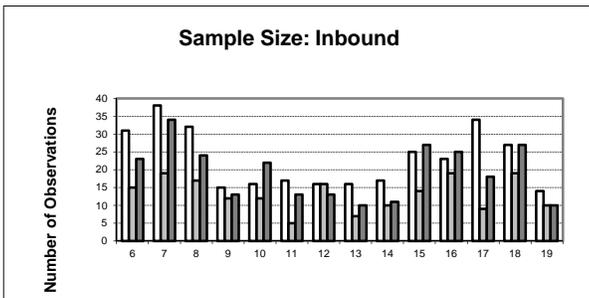
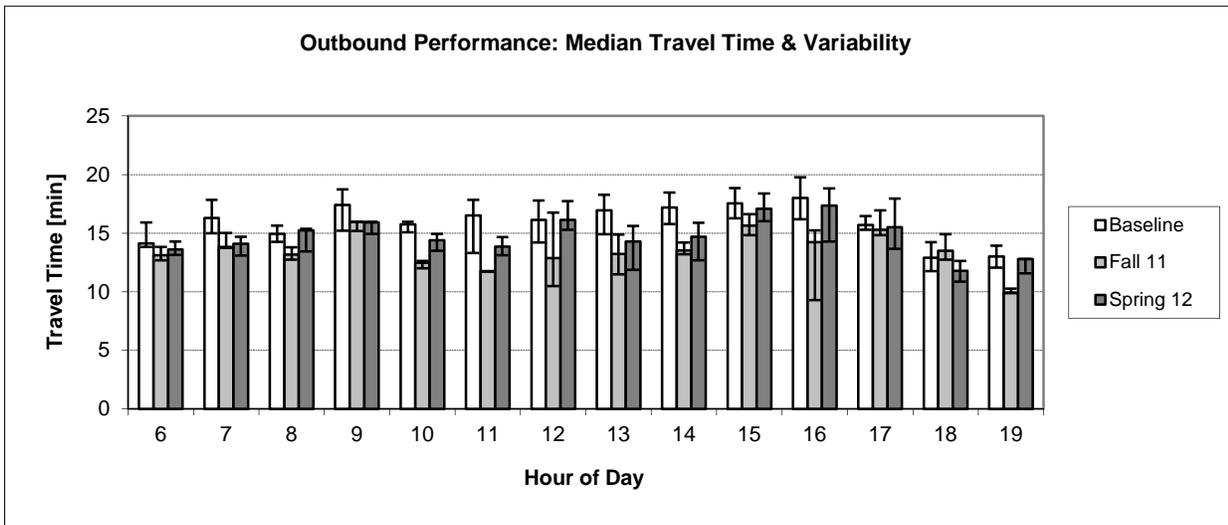
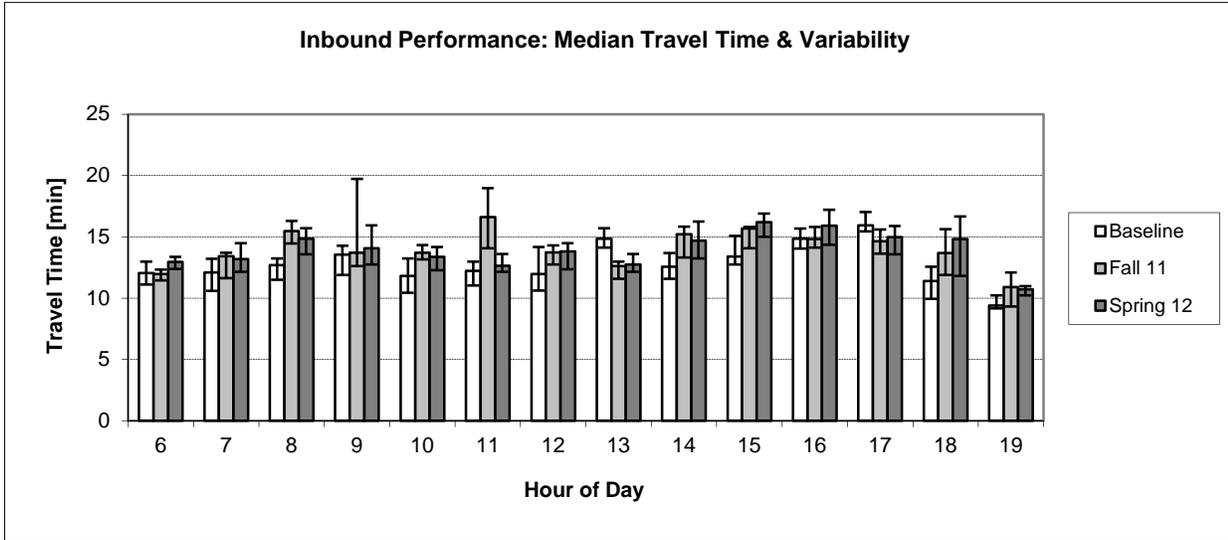
4th Ave S & S Michigan St to 4th/2nd Ave & Jackson St via 4th Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway I.3

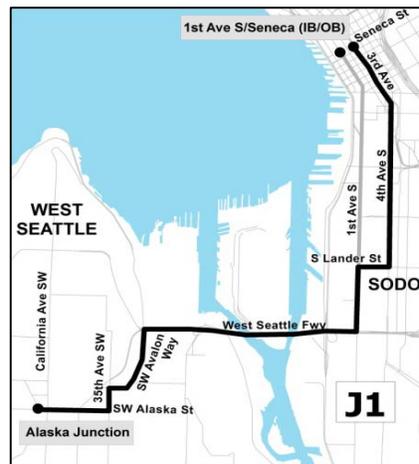
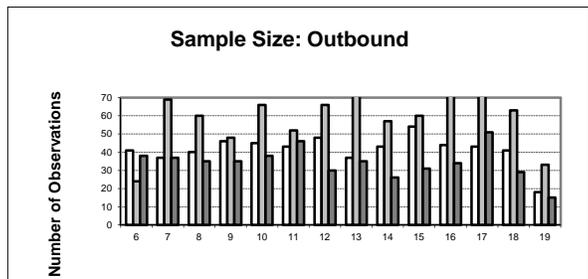
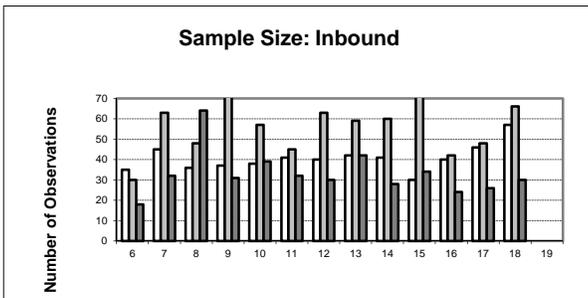
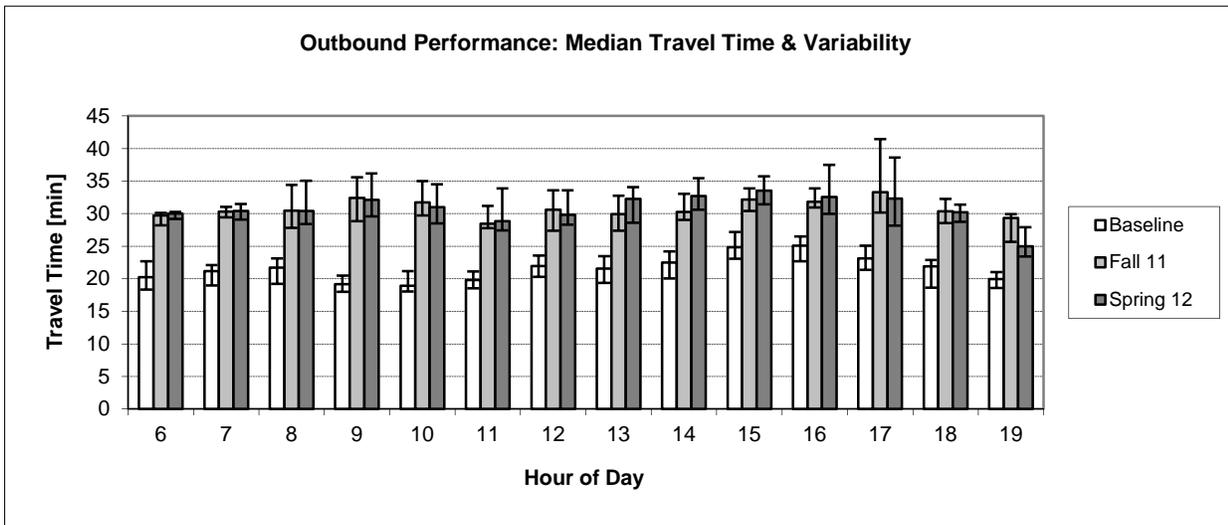
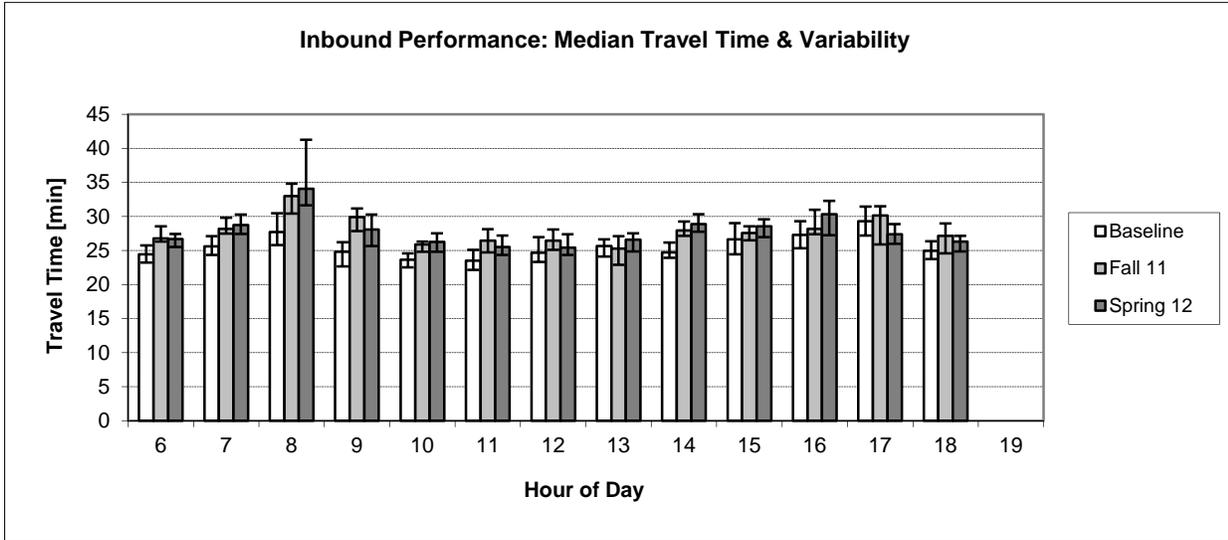
1st Ave S & East Marginal Way to 4th/2nd Ave & Jackson St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway J.1

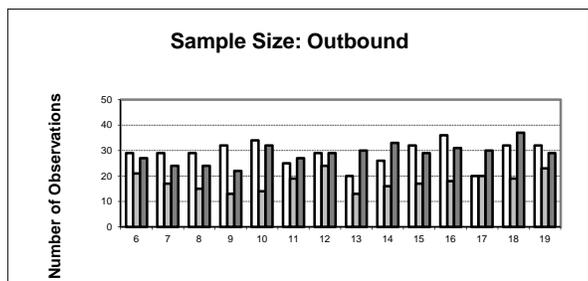
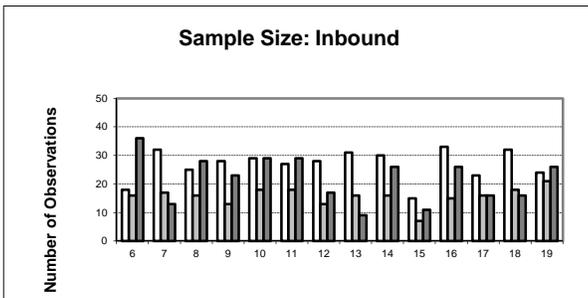
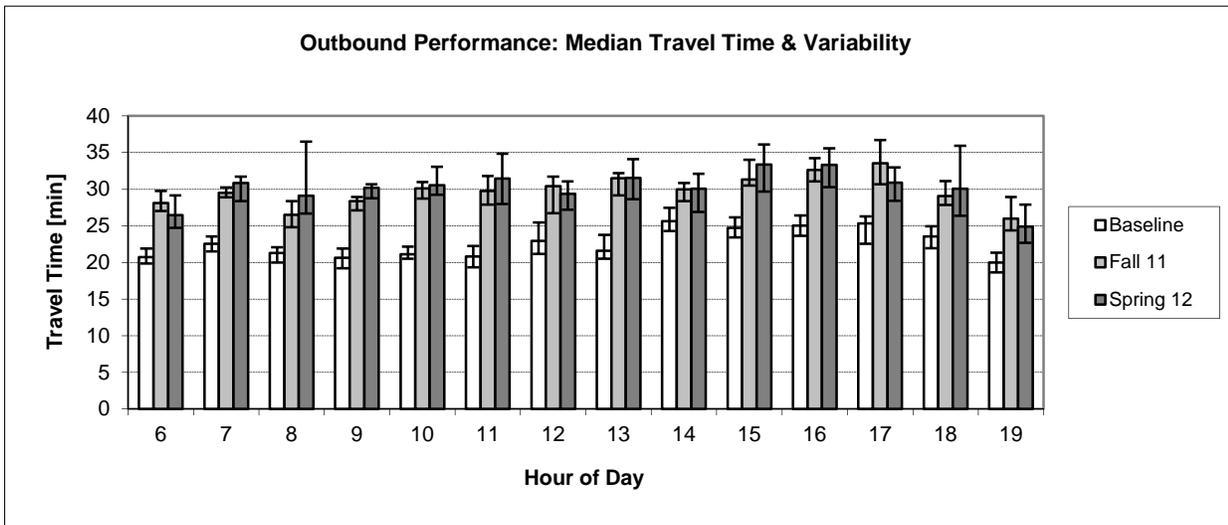
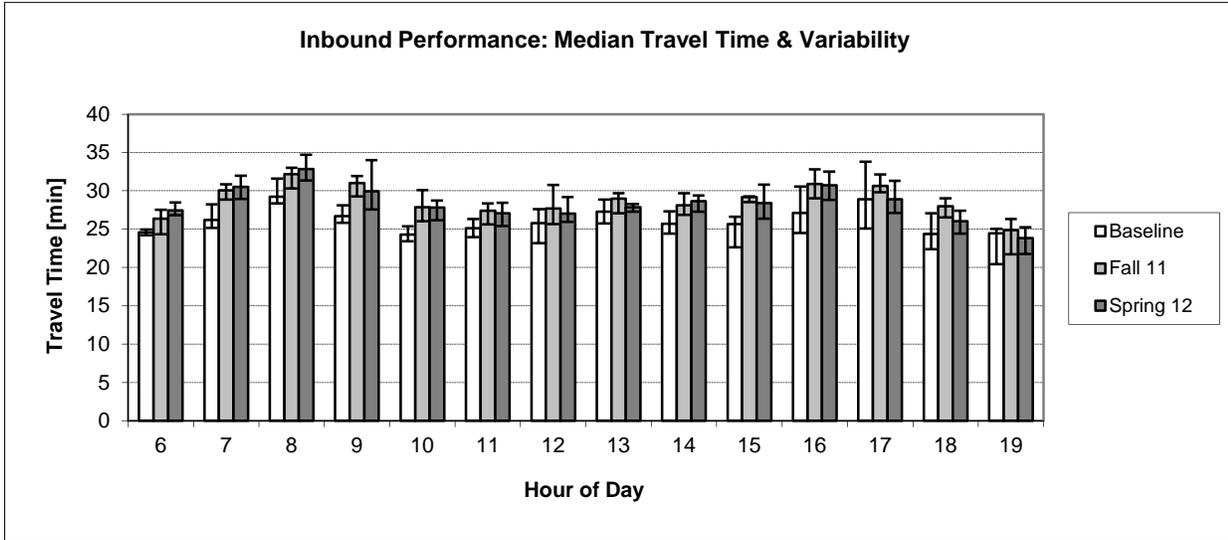
Alaska Junction to 3rd Ave & Seneca St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVI
Fall 11	10/31/11 - 11/18/11	AVI-AVI
Spring 12	4/2/12 - 4/27/12	AVI-AVI

Pathway J.2

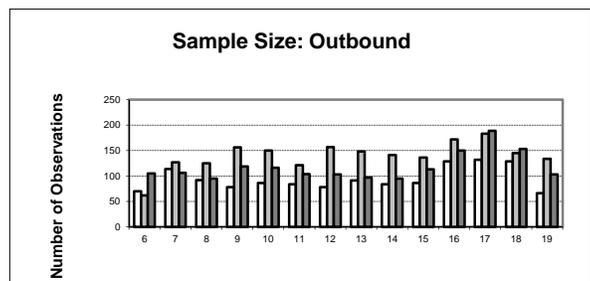
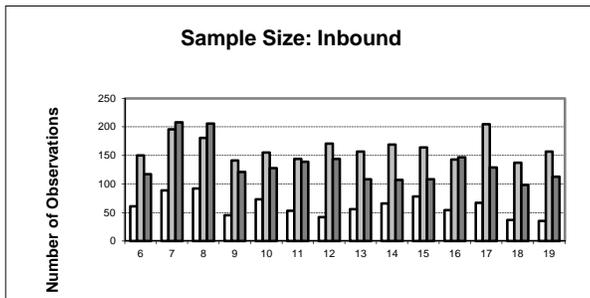
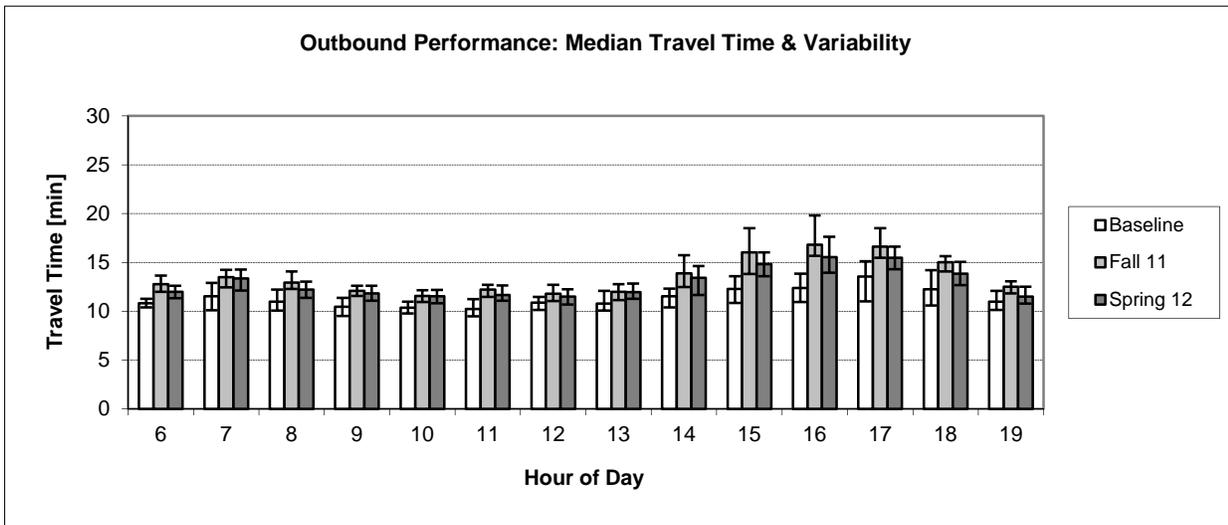
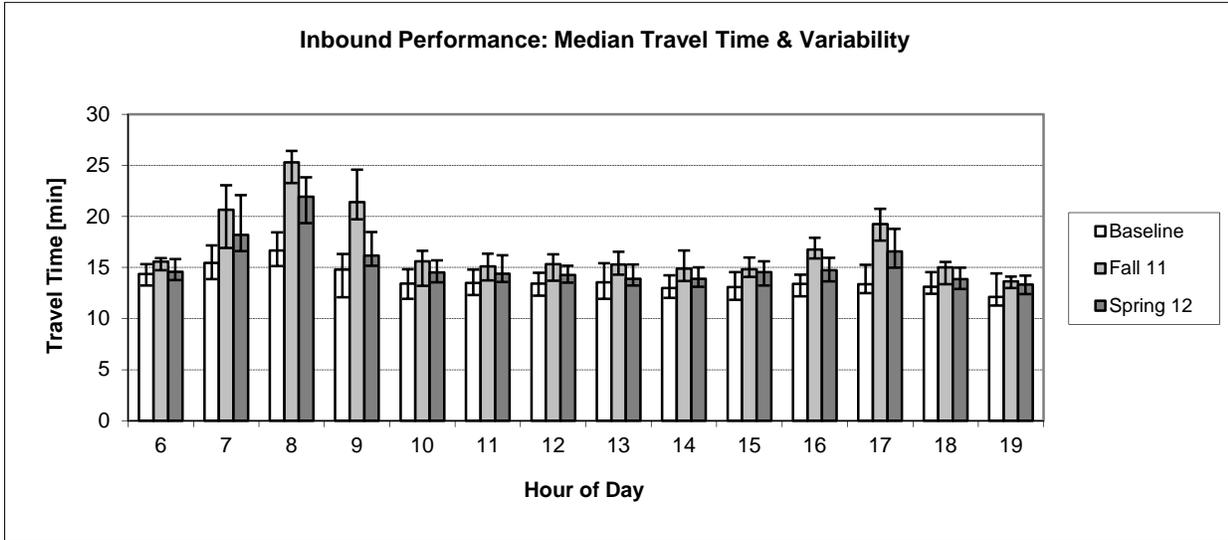
35th Ave SW & SW Morgan St to 3rd Ave & Seneca St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway J.3

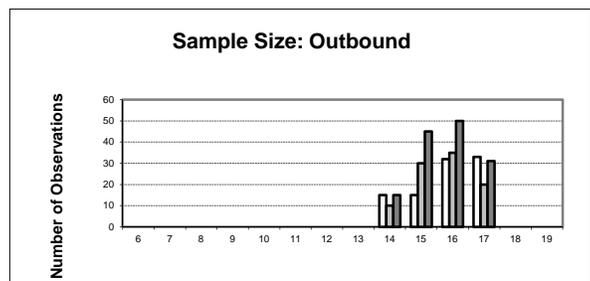
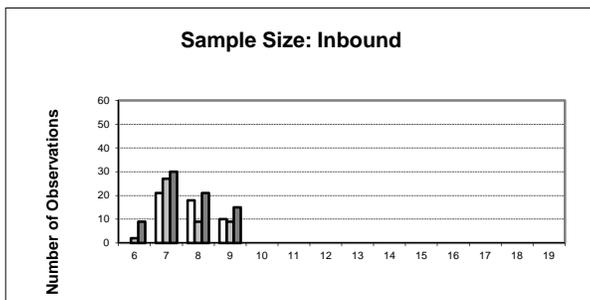
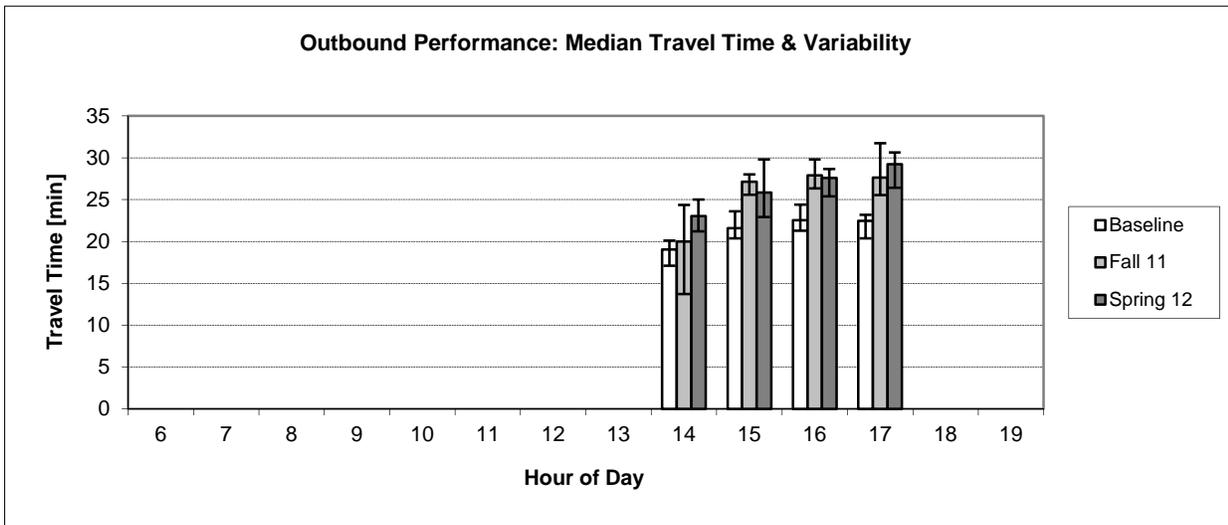
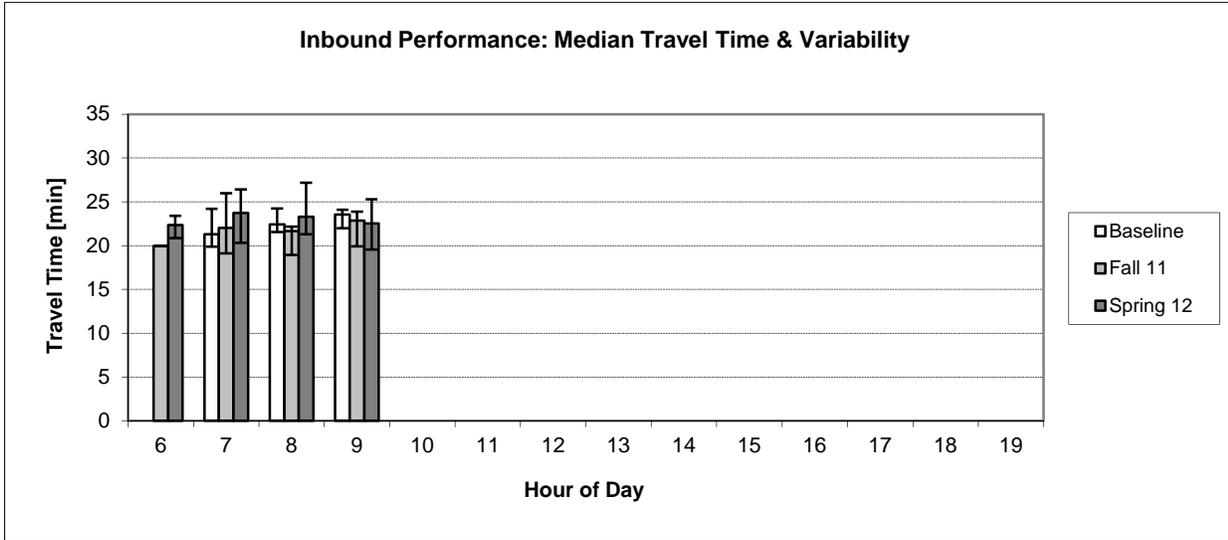
Alaska Junction to 1st Ave & Seneca/Columbia St via Alaskan Way Viaduct



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 11	10/31/11 - 11/18/11	AVI
Spring 12	4/2/12 - 4/27/12	AVI

Pathway J.4

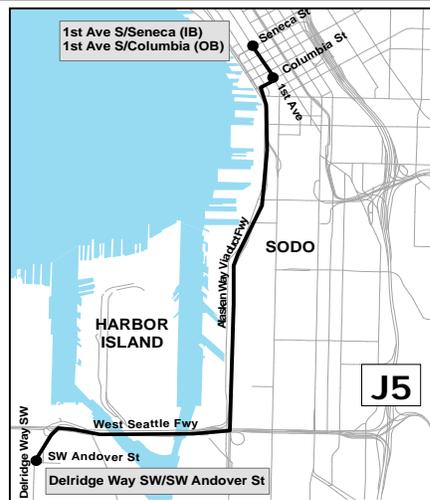
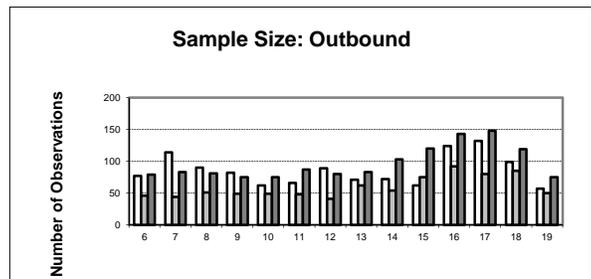
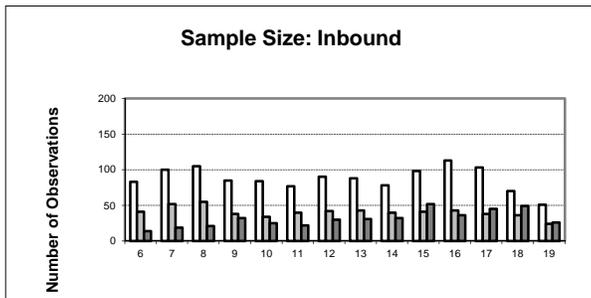
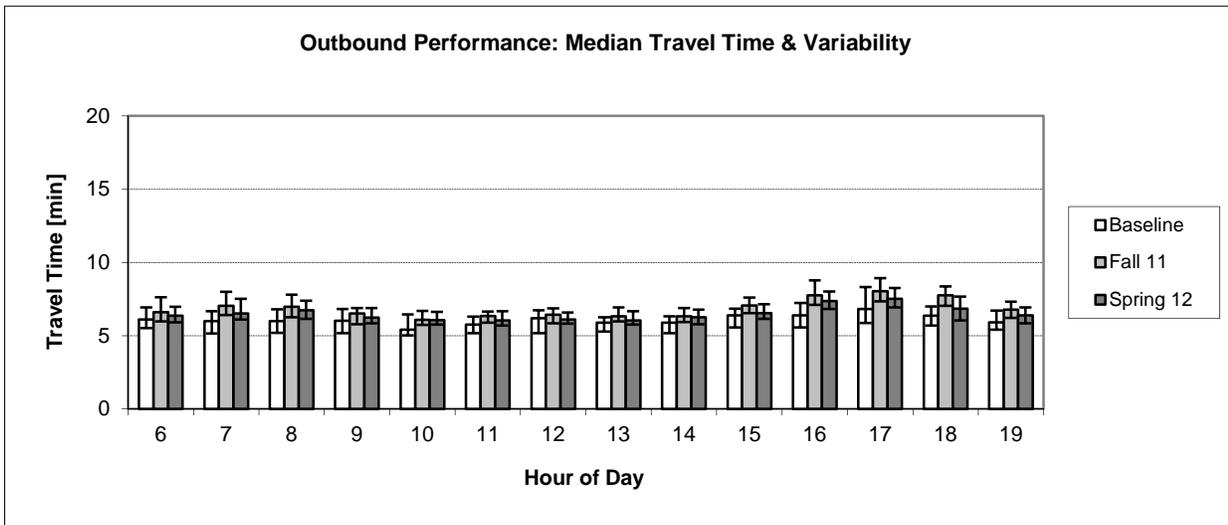
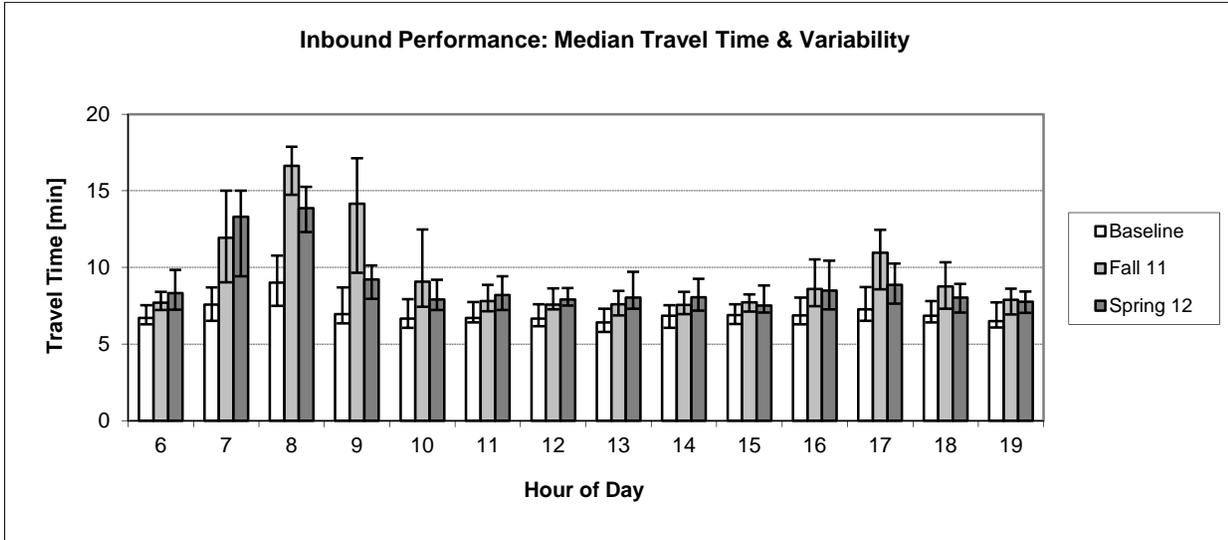
California Ave SW & SW Fauntleroy Way SW to 3rd Ave & Yesler St via 1st Ave S (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway J.5

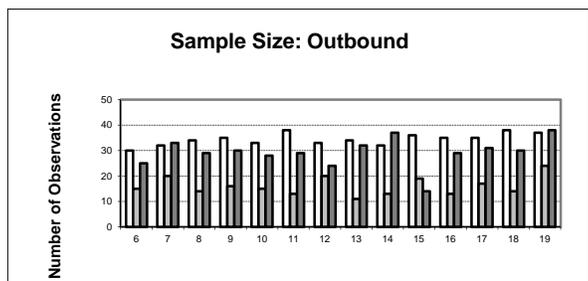
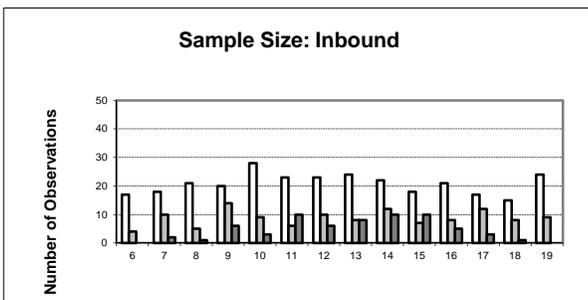
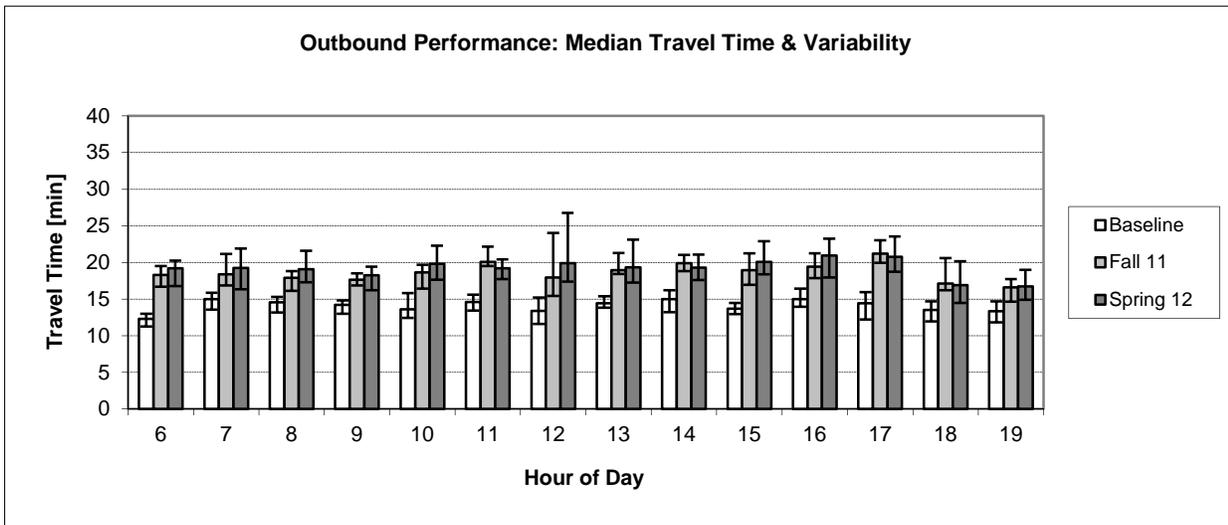
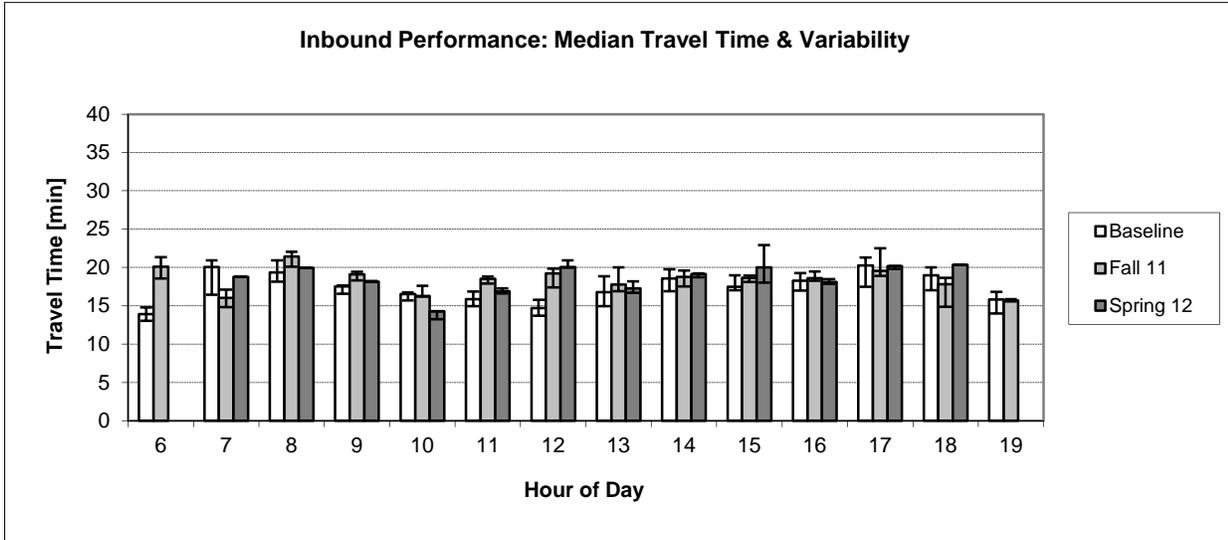
Delridge Way SW & SW Andover St to 1st Ave & Seneca/Columbia St via AWW



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 11	10/31/11 - 11/18/11	AVI
Spring 12	4/2/12 - 4/27/12	AVI

Pathway J.6

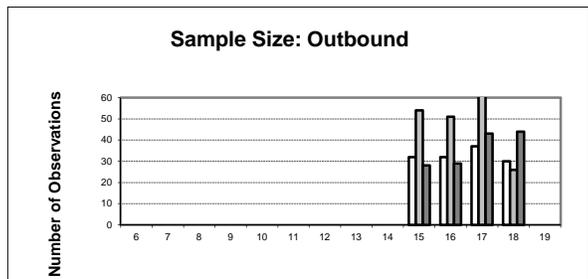
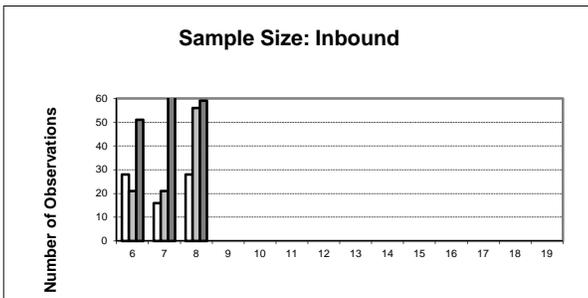
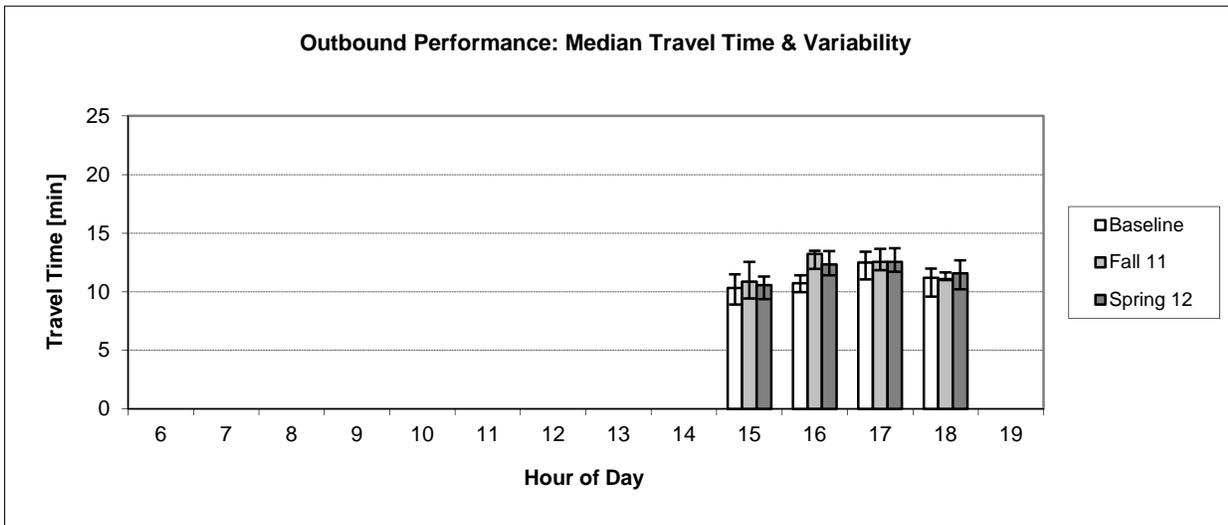
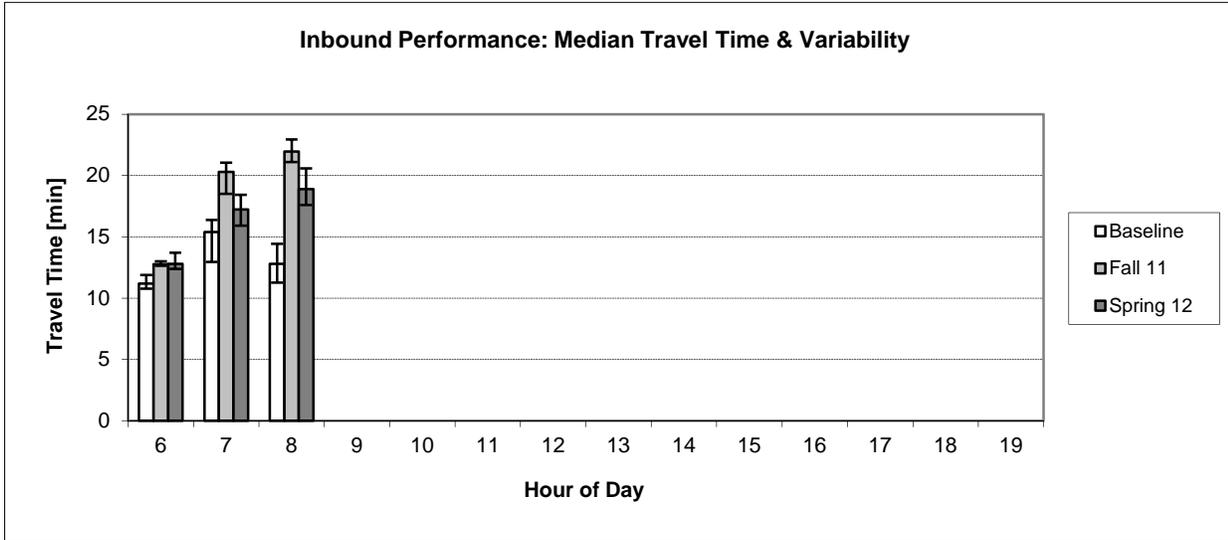
Admiral Way SW & California Ave SW to 2nd/4th Ave & S Jackson St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 11	10/31/11 - 11/18/11	AVL-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway J.7

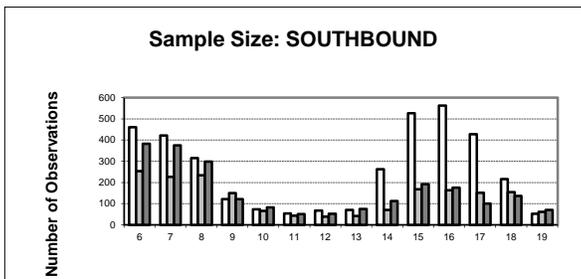
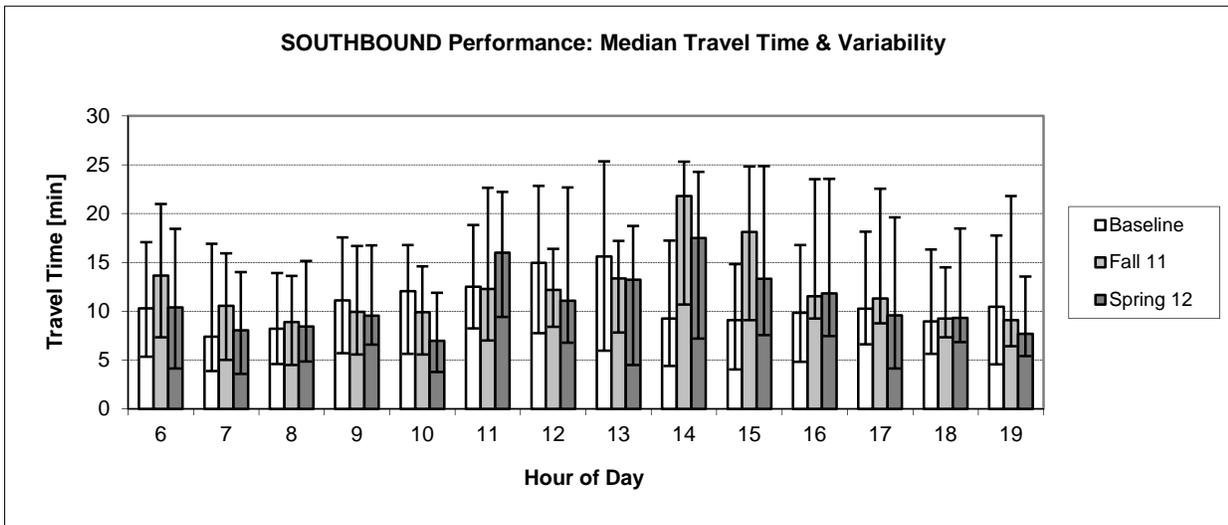
Admiral Way SW & California Ave SW to 1st Ave & Seneca/Columbia St via AWV (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVL
Fall 11	10/31/11 - 11/18/11	AVI-AVL
Spring 12	4/2/12 - 4/27/12	AVI-AVL

Pathway CBD2

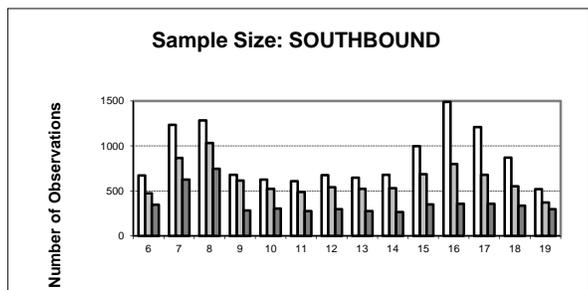
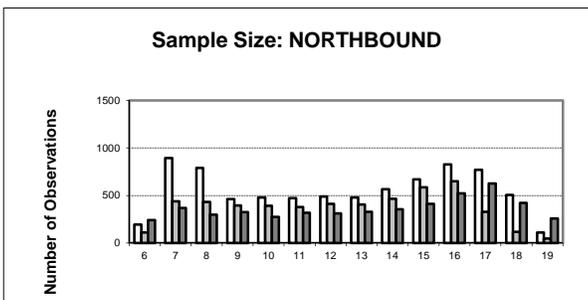
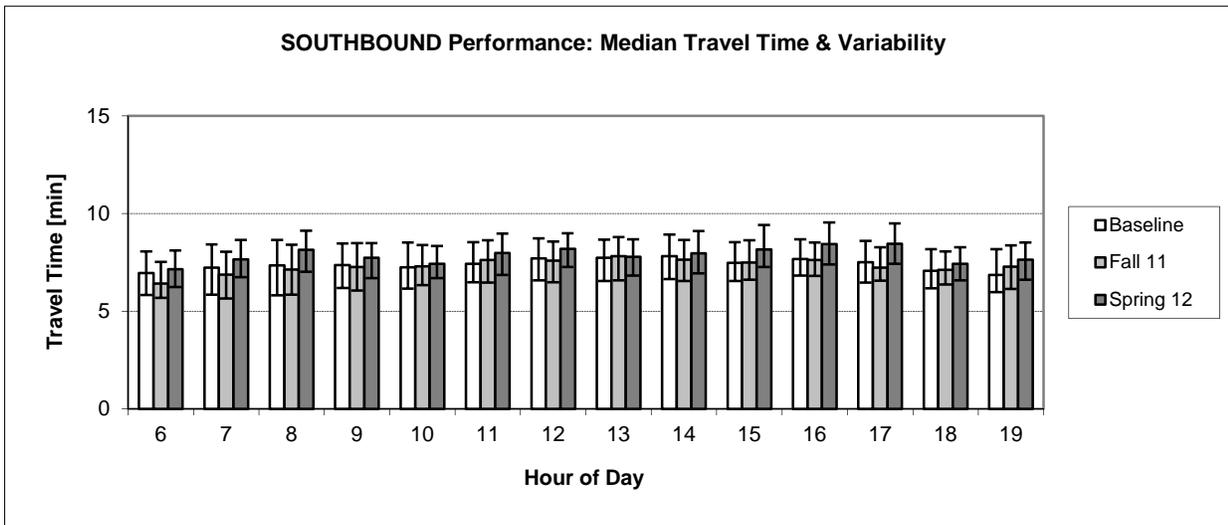
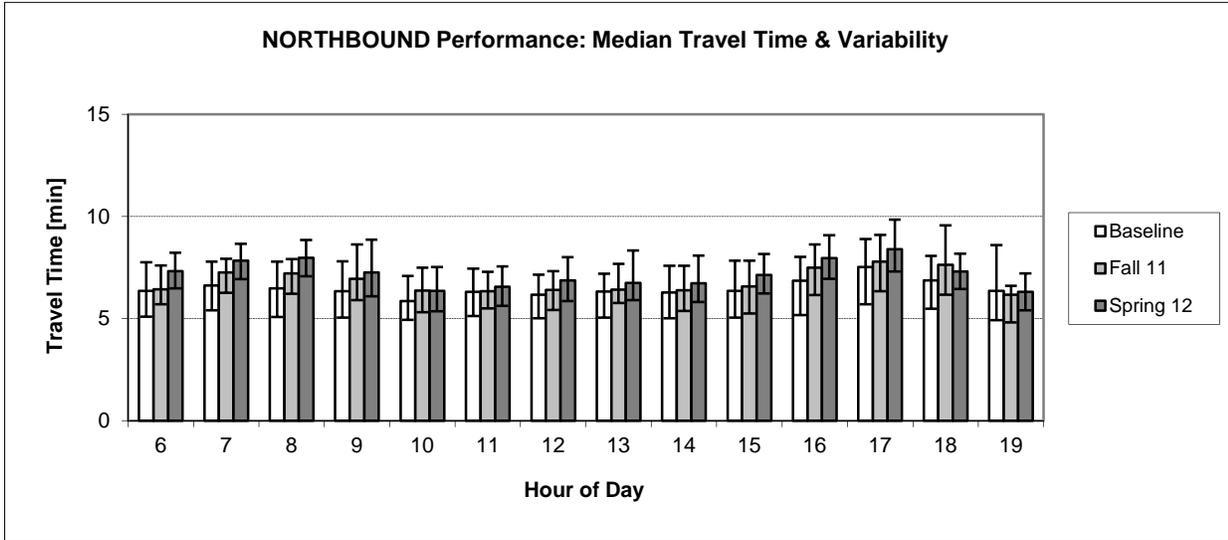
Second Avenue: Pike St to Jackson St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 11	10/31/11 - 11/18/11	AVI
Spring 12	4/2/12 - 4/27/12	AVI

Pathway CBD3

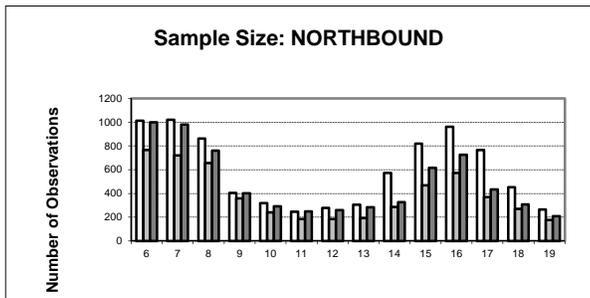
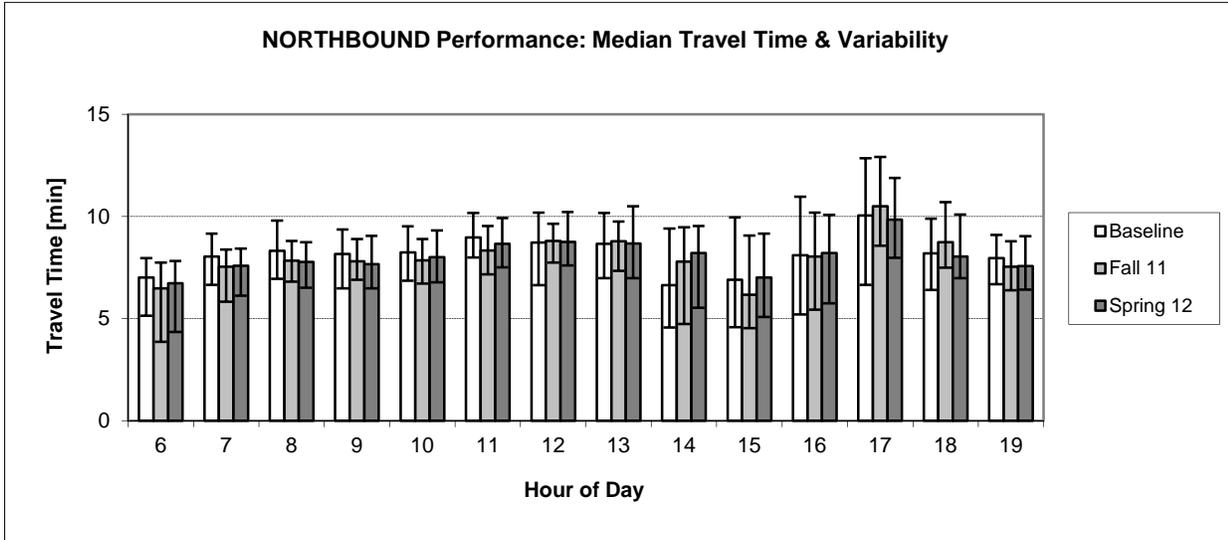
Third Ave: Stewart St to Yesler Way



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVI
Fall 11	10/31/11 - 11/18/11	AVI-AVI
Spring 12	4/2/12 - 4/27/12	AVL-AVI

Pathway CBD4

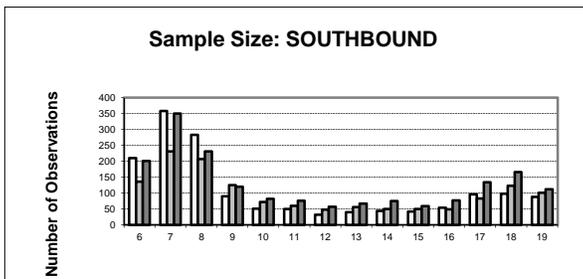
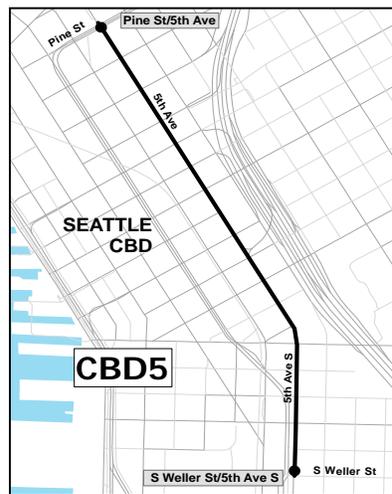
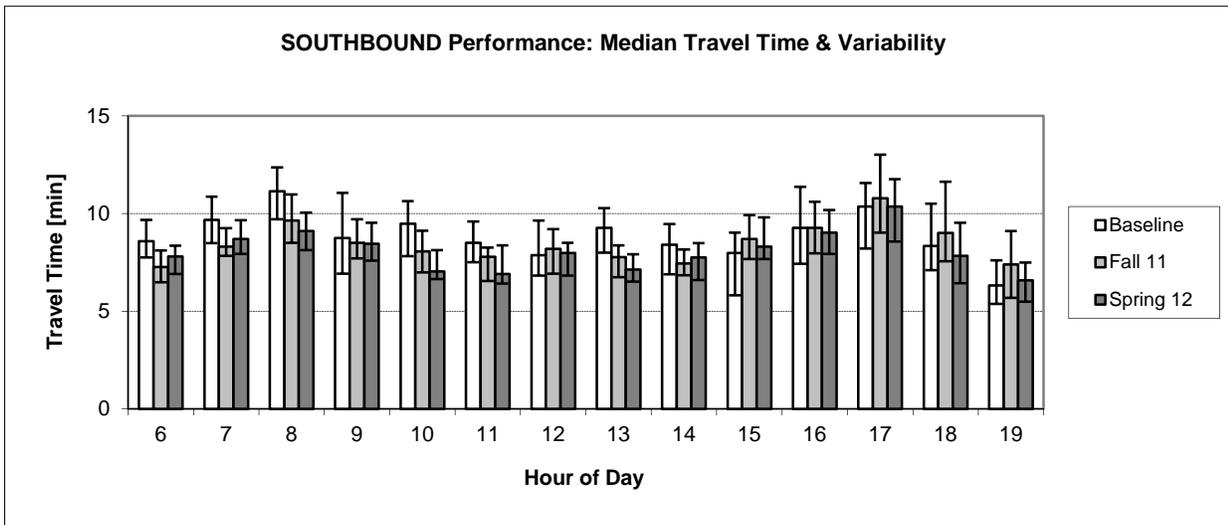
Fourth Ave: Jackson St to Stewart St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 11	10/31/11 - 11/18/11	AVI
Spring 12	4/2/12 - 4/27/12	AVI

Pathway CBD5

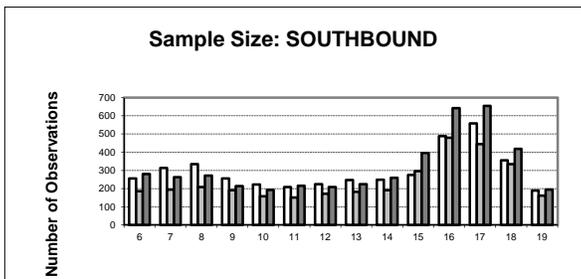
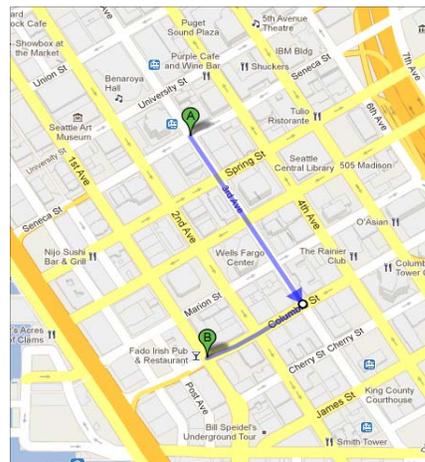
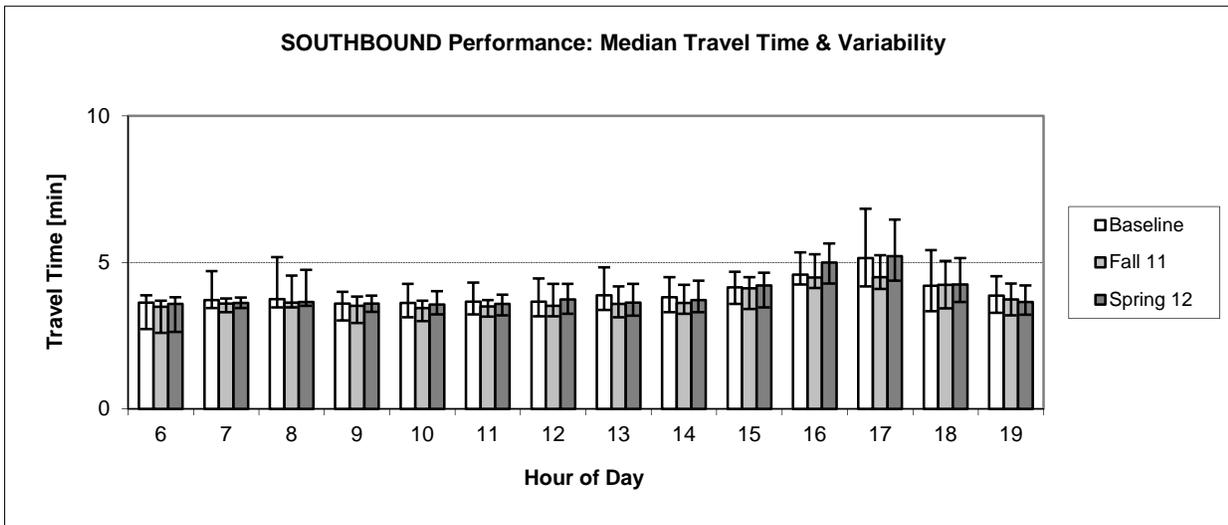
Fifth Ave: Pine St to Weller St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 11	10/31/11 - 11/18/11	AVI
Spring 12	4/2/12 - 4/27/12	AVI

Pathway Columbia

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



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 11	10/31/11 - 11/18/11	AVI
Spring 12	4/2/12 - 4/27/12	AVI