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**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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TABLE OF CONTENTS

Summary	5
Services and Activities: February 2011 to June 2011	6
Expenditures: September 2009 – 2 nd Quarter 2011	6
Performance Report Schedule	8
Enhanced Transit Service Report.....	10
Introduction	10
Enhanced Transit Service Report Purpose	10
Ridership Trends	12
Ridership Change in Spring 2011 Compared to 2009 Baseline.....	13
Performance of Enhanced Transit Service Additions	14
Transit Capacity	15
Transit Capacity Level of Service	16
Flexible Transit Service	20
Schedule Adjustments	20
Transit Travel Time Report.....	21
Travel Time Report Purpose.....	21
Travel Time Data	23
Spring 2011 Highlights	25
Service Additions Travel Time	26
Transportation Demand Management Report	27
TDM Report Purpose	27
TDM Program Timeline	29
TDM Performance	31
TDM Budget and Expenditure – June 2011.....	33
Appendix A.....	33
Appendix B.....	55

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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.

The enhanced transit and trip reduction services were strategically designed to address the most significant Moving Forward construction traffic impacts and to build upon ongoing local, state and federal investments in transit and trip reduction services. As construction-related traffic intensifies, we will continue to add bus trips to help increase transit capacity and maintain reliable schedules and will implement additional demand management programs to reduce drive-alone trips on the most congested routes.

This report is broken down into three sections:

- **Enhanced Transit Services:** This section compares the Spring 2011 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 2011 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 2011 TO JUNE 2011

Enhanced Transit Service summary

- During this period, Metro shifted seven bus routes from 1st Avenue to 3rd Avenue through downtown Seattle and revised routing in the SODO area to operate via Edgar Martinez Drive in the stadium area. These changes were part of a larger group of changes to routings and bus stop operation in downtown Seattle to avoid long construction delays and keep buses moving.
- Inbound and outbound Enhanced Transit Service (ETS) mitigation trips were added to route 54 between 3 and 7 pm in February 2011. Route 54 attracts the second-highest ridership among Metro routes in West Seattle, and will be replaced by Metro's planned C Line RapidRide service in September 2012.
- Metro used 1183 flexible transit service hours to meet the day to day variations in construction related traffic disruptions. These service hours allow Metro to respond immediately to conditions on the street. The service provided 482 trips with 9,840 transit riders.

Ridership summary

- Despite an overall five percent decline in ridership over West Seattle Pathway J (Table 2), West Seattle routes with ETS trip adds all showed a nine percent gain in ridership during weekday peak hours (Table 3).
- Leading the growth in ridership was route 54, operating between Westwood Village and downtown Seattle via Alaska Junction. Peak ridership on route 54 responded very positively to ETS improvements made during peak and shoulder hours, growing 39 percent from 1,210 to 1,680 daily rides between the Spring 2009 baseline period and Spring 2011.

All West Seattle pathways and other pathways affected by SR-99 lane closures

- Lane reduction on SR-99 from three to two lanes in both directions has directly impacted all transit service using the Alaskan Way Viaduct and is causing backups on Columbia Street in the CBD area.
- Traffic diversion and new SODO routing to 3rd Avenue have significantly impacted 1st Avenue pathways.
- Southbound queues extending beyond the Battery Street Tunnel are impacting inbound pathways on Aurora Avenue N during the pm peak.
- Pathways using Dexter Ave and Westlake Ave have been impacted by ongoing Mercer Street related construction and paving on Dexter Avenue.
- Third Avenue has continued to perform well despite the addition of new bus routes from 1st Avenue.

Transportation Demand Management Summary

- In spring 2011, all AWW TDM tasks were being implemented.
- Four residential outreach projects, In Motion, were engaging the affected neighborhoods of: Georgetown, South Park, West Seattle and White Center.
- The AWW transit and rideshare promotions effort combined forces with the SR-520 tolling TDM promotions effort to launch an umbrella campaign, "Spend More Time Doing Something Else," which promoted commute and personal travel options including: Bus; bike; walk; rideshare and telework. This broad effort will serve as the foundation of future promotions of the AWW corridor bus service increases and vanpool.
- In addition, 3,142 employers in the AWW/SR-520 travel sheds were called to offer presentations to employees or employers on planning construction activities and options. These presentations were beginning to be scheduled by the beginning of June.
- The telework consultant engaged eight businesses in developing telework programs.
- Passport Passes continue to be sold in the Seattle center city.

EXPENDITURES: SEPTEMBER 2009 – 2ND QUARTER 2011

*Combined Enhanced Transit Service, Bus Monitoring, and Transportation Demand Management Performance Report Volume 5
Provided King County Metro – Service Development*

As of the end of June 2011, Metro has invoiced WSDOT \$7,010,522.47 (\$544,456 under GCA 5864, \$6,068,448.31 under GCA 5820 and \$397,618.16 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	Volume 1	Volume 2	Volume 3	Volume 4	Volume 5	Volume 6	Volume 7	Volume 8	Volume 9	Volume 10	Volume 11
	12-14-09	4-05-10	8-09-10	12-13-10	4-04-11	8-22-11	12-12-11	4-02-12	08-20-12	12-10-12	TBD	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 compare

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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 is useful in understanding the impact of the 31 additional trips funded by WSDOT. The trips funded by WSDOT as part of the February service change are scheduled on routes 21 Express (X), 54, 56X (part of Pathway J) and 121 (part of Pathway I). This report compares Spring 2009 baseline performance measures with Spring of 2011 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, 2009, 2010 and 2011 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 report will specifically evaluate how pathways I and J, which received WSDOT funding, performed compared to the other pathways. 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. In 2010 ridership stabilized and the economy began a slow recovery. Even so, the average unemployment for the months of February to June has decreased from 7.9 percent in 2009 to 8.1 percent and 8.3 percent in 2010 and 2011 respectively. Fuel prices, however, have increased by more than 50 percent, from a weekly average of \$2.32/gal between February and June in 2009 to \$3.61/gal in 2011. Despite the worsening unemployment¹ 2011 system-wide ridership has returned to 2009 levels.

The Enhanced Transit Service Table 1 below shows that the ridership trends of the Enhance Transit Service pathways on the whole are somewhat worse than the system-wide ridership trends. The implementation of RapidRide A Line, additional service across SR 520 and growth in ridership on trolley routes were all had positive ridership impacts that would not have benefited any of the ETS pathways. Pathways A and B, fair better than pathway's I or J. 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	2009	2010	2011	% Change 2009-2011
System-wide Ridership	375,000	363,000 [‡]	374,000	<-1%
Total of Pathways	80,780	77,770 [80,860]*	77,410 [80,860]*	-4% [0%]*
Pathway A – Ballard/Magnolia	19,250	18,890	19,030	-1%
Pathway B – Aurora Fremont	29,640	28,280	29,150	-2%
Pathway I – SODO/Georgetown	8,260	7,540 [10,630]*	7,110 [10,570]*	-14% [28%]*
Pathway J – West Seattle [†]	23,630	23,060	22,111	-6%

*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 J baseline is larger than the baseline shown for Vol 4 because express routes 118 and 119 were inadvertently excluded from the previous baseline.
[‡]2010 system-wide ridership has been adjusted from the 359,000 that was reported in Vol 4 to reflect finalized year end numbers for 2010.

¹ Based on monthly Local Area Unemployment Statistics for King County from the United States Department of Labor <http://www.bls.gov/lau/>. Comparing the average unemployment rate for February, March, April and May of 2009 to the unemployment rate for the same months of 2010 and 2011 shows the unemployment rate growing from 7.9 in 2009 to 8.1 in 2010 and 8.3 in 2011.

RIDERSHIP CHANGE IN SPRING 2011 COMPARED TO 2009 BASELINE

The Enhanced Transit Service Table 2 below compares the Spring 2011 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.

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 2011 SERVICE CHANGE RIDERSHIP								
Ridership Group	Avg. Weekday		Peak Period*		Shoulder Periods		Midday Period	
	2009	2011 (% Change)	2009	2011 (% Change)	2009	2011 (% Change)	2009	2011 (% Change)
System-wide Ridership	375,000	374,000 (0%)	184,000	184,000 (0%)	68,000	69,000 (1%)	79,000	77,000 (-3%)
Total of Pathways†	80,780	77,400 [80,860] (-4%)	40,310	38,920 [40,400] (-3%)	14,210	13,670 [14,170] (-4%)	15,570	15,140 [15,860] (-3%)
Pathway A – Ballard/Magnolia	19,250	19,030 (-1%)	10,080	10,160 (1%)	3,350	3,270 (-2%)	3,540	3,580 (1%)
Pathway B – Aurora Fremont	29,640	29,150 (-2%)	13,730	13,470 (-2%)	5,460	5,380 (-1%)	6,230	6,080 (-2%)
Pathway I – SODO/Georgetown†	8,260	7,110 [10,570] (-14%)	4,440	3,870 [5,360] (-13%)	1,370	1,120 [1,630] (-18%)	1,400	1,180 [1,900] (-16%)
Pathway J – West Seattle†	23,630	22,110 (-6%)	12,060	11,420 (-5%)	4,030	3,890 (-7%)	4,400	4,300 (-3%)

*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.
†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.

PERFORMANCE OF ENHANCED TRANSIT SERVICE ADDITIONS

In February 2011, WSDOT funded the continuation of the additional trips on routes 21X, 54, 56X and 121 and added five additional inbound weekday trips and five outbound weekday trips on route 54 local during the afternoon peak and edge-of-peak hours. Compared to the Spring 2009 baseline ridership has increased during the peak and shoulder periods on all four routes that received Enhanced Transit Service (ETS) funding during the Spring 2011 service change. The largest absolute change was in response to upgrading the peak frequencies from every 20-30 minutes to every 10-15 minutes on route 54. This resulted in estimated 470 additional weekday boardings during the peak period and 60 additional boardings during the shoulder periods. The largest percent increase in ridership was in the shoulder period on the 21X which increased by 50 additional boardings or 167 percent. Although not shown in the chart below, it should be noted that both routes 21X and the 54 have also added riders in the Peak and Shoulder periods compared to Fall 2010. The route 56X did have a fourteen percent decline. It is important to note that this is a small change only ten passengers.

Although route 121 increased ridership in the peak period more than the system-wide, or even pathway average, ridership on this route has not responded as positively to the service increases as have the other routes. This is true even when accounting for the loss of midday service. The decline in average weekday boardings for route 121 is due to Metro discontinuing low productivity midday service as well as the construction of a new parking garage next to Burien Transit Center that has required temporary closure of the Burien Park-and-Ride and substitution of a smaller interim park-and-ride facility until late August 2011

On the whole, the peak period ridership performance of the ETS routes outperformed system-wide and pathway trends by 21 and 24 percentage points respectively. The ridership performance of the ETS routes also outperformed system-wide and pathway trends in the shoulder periods, and midday period. 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 775 fewer peak period transit trips in pathway J and 115 fewer peak period trips in pathway I for a total of 890 daily peak period transit trips.

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	2011 (% Change)	2009	2011 (% Change)	2009	2011 (% Change)	2009	2011 (% Change)
21X / Pathway J	770	950 (23%)	740	870 (18%)	30	80 (167%)	No Service	No Service
54 / Pathway J	3,030	3,420 (13%)	1,210	1,680 (39%)	570	630 (11%)	630	630 (0%)
56X / Pathway J	590	630 (7%)	508	560 (10%)	70	60 (-14%)	No Service	No Service
121 / Pathway I	1090	980 (-10%)	730	750 (3%)	210	190 (-10%)	90	No Service [†]
Enhanced Transit Service Route Total	5,480	5,980 (9%)	3,180	3,850 (21%)	880	960 (9%)	630 [†]	630 (0%)

*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.

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 2011 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 2011 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, 54, 56X) have helped increase the peak period capacity of the whole corridor. WSDOT investments in Pathway I however (121), were too small to be seen at this summary level. 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, the average coach size for midday trips in pathway A increased from 48 seats to 56 seats, or 17%. There is one less trip in the midday period in 2011, resulting in a 16% change.

Enhanced Transit Service Table 4

SPRING 2011 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	2011 (% Change)	2009	2011 (% Change)	2009	2011 (% Change)
Pathway A – Ballard/Magnolia†	9,160	9,930 (8%)	2,940	3,230 (10%)	3,600	4,160 (16%)
Pathway B – Aurora Fremont†	15,530	15,410 (-1%)	5,810	5,780 (-1%)	7,640	7,270 (-5%)
Pathway I – SODO/Georgetown*	6,190	5,990 [8,180] (-3%)	1,890	1,870 [2,660] (-1%)	1,940	1,590 [2,540] (-18%)
Pathway J – West Seattle‡	15,920	18,090 (14%)	5,610	6,510 (16%)	7,220	7,600 (5%)
Total of all Pathways	46,790	49,420 (6%)	16,260	17,390 (7%)	20,400	20,620 (1%)

*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 express 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 compare the actual transit capacity delivered during the Spring 2011 service change to the Spring 2011 ETS proposal. Table 5 shows that in total, Metro provided one percent more capacity than originally proposed. During the Spring 2011 service change WSDOT funds provided 56 percent more transit capacity than the peak period capacity of routes 21X, 54, 56X and 121. As will be shown in the next section this additional capacity has improved the transit capacity level of service on these routes and certainly helped attract the 890 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 2011				
Route/Pathway	Metro Funded Peak Period*	Actual WSDOT Funded*	Spring 2011 ETS Proposal†	% Increase in Seating Capacity Compared to Metro Peak Period
21X	830	360	350	43%
54	1,440	1,560	1,570	108%
56X	600	220	230	37%
121‡	1,320	220	230	16%
Total	4,190	2,350	2,380	56%

*Actual average seats/trip for Spring2011 was as follows: 21X:59, 54:58, 56x:55 and 121:55
†ETS Proposal was based on 58 seats/trip
‡The number of Metro funded peak period seats was different in the proposal because reverse peak trips had been inadvertently excluded.

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 2011 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. Even with peak period ridership growing on all ETS routes the percent of riders experiencing transit capacity level of service has declined on all routes except route 121. Overall, there are 210 fewer am and 470 fewer pm peak period riders experiencing transit capacity level of service C or worse than there were in the Spring of 2009.

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 route 54 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 2011 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	2011	2009	2011	2009	2011	2009	2011
21X	0.76	0.53	7	4	67%	19%	430	260
54	0.57	0.59	3	4	29%	16%	190	310
56X	0.70	0.58	3	0	77%	0%	200	0
121	0.47	0.47	0	1	0%	9%	0	40
Total							820	610

Enhanced Transit Service Table 8

COMPARISON OF SPRING 2011 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	2011	2009	2011	2009	2011	2009	2011
21X	0.76	0.54	4	3	42%	32%	250	190
54	0.71	0.55	6	2	54%	10%	410	90
56X	0.68	0.66	2	2	52%	48%	130	130
121	0.68	0.55	2	0	29%	0%	90	0
Total							880	410

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 2011 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	2011	2009	2011	2009	2011
Pathway A – Ballard/Magnolia	58%	51%	24	24	1,480	1,470
Pathway B – Aurora Fremont	53%	52%	37	37	2,500	2,400
Pathway I – SODO/Georgetown	16%	22%	6	9	270	380
Pathway J – West Seattle	52%	34%	38	22	2,170	1,360
All Pathways	49%	43%	105	92	6,420	5,610
Inbound Trips All Other Times of Day						
	2009	2011	2009	2011	2009	2011
Pathway A – Ballard/Magnolia	27%	14%	27	12	1,360	720
Pathway B – Aurora Fremont	26%	25%	46	48	2,870	2,820
Pathway I – SODO/Georgetown	8%	3%	5	3	210	130
Pathway J – West Seattle	16%	11%	22	13	1,150	760
All Pathways	22%	16%	100	76	5,590	4,430
Total Inbound Trips			205	168	12,010	10,040

Enhanced Transit Service Table 10

**SPRING 2011 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	2011	2009	2011	2009	2011
Pathway A – Ballard/Magnolia	45%	20%	22	12	1,320	640
Pathway B – Aurora Fremont	59%	45%	48	36	3,000	2,170
Pathway I – SODO/Georgetown	40%	19%	12	7	560	300
Pathway J – West Seattle	51%	34%	34	21	2,090	1,320
All Pathways	52%	33%	116	76	6,970	4,430
Outbound Trips All Other Times of Day						
	2009	2011	2009	2011	2009	2011
Pathway A – Ballard/Magnolia	22%	19%	24	18	1,280	1,090
Pathway B – Aurora Fremont	23%	15%	38	27	2,550	1,600
Pathway I – SODO/Georgetown	6%	4%	3	3	140	140
Pathway J – West Seattle	11%	12%	14	13	840	790
All Pathways	18%	14%	79	61	4,810	3,610
Total Outbound Trips			195	137	11,780	8,040

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 2011 ETS proposal, Metro budgeted 1,000 hours of flexible services to meet these needs.

Enhanced Transit Service Table 11 below reports on all flexible hours that were used during the Spring 2011 service change. The trips and boardings reported on this table come from self reported driver count sheets.

As shown in Table 11, Metro began deploying the flexible hours in mid-March because routes West Seattle Viaduct routes 54, 55, 120, and routes through-routed with viaduct services, 5, 11, 15, and 24 which were beginning to experience construction related delays. Metro cut back the number of flexible hours in April to save resources for later in the service change when it became clear that there would be a lane closure on SR-99 in mid May. Since May 16th Metro has been investing resources in the flexible services at a rate of more than twice the budgeted amount for Spring 2011. These services have been very important on days when traffic delays have caused transit services to fall behind. For example on June 8th 2011, one four hour am standby coach did four trips serving 191 passengers on routes 120, 54, and 56. The real-time response of these services allows for greater reliability of service and has helped to maintain public confidence in riding transit.

Enhanced Transit Service Table 11

Spring 2011 Use of Flexible Hours					
Date Range	Number of Weekdays	Max. number of Standby coaches	Total flexible hours	Number of trips provided	Number of Boardings
March 14 – April 1	15	3	242.5	86	1,730
April 4 – April 15	10	2	121.7	54	1,100
April 18 – May 13	20	1	190	67	1,300
May 16 – May 20	5	4	161.7	58	1,150
May 23 – June 10	14	4	466.7	217	4,560
Actual Totals	64	4	1,182.6	482	9,840
Feb 2011 ETS Proposal			1,000		

SCHEDULE ADJUSTMENTS

In February 2011 Metro changed the routing of all 1st Avenue services to use 3rd Avenue in order to avoid construction activities on 1st Avenue. This re-route was estimated to add five to eight minutes of running time. Table 12 below compares the transit travel time of service before and after the change and shows that the travel time has actually increased for these services.

Enhanced Transit Service Table 12

Difference in Minutes Between 2009 Baseline and Spring 2011 Travel Time			
Pathway	AM Peak Inbound Max/Min	Midday Max/Min	PM Peak Outbound Max/Min
J1: Alaska Jct. to 3 rd Ave and Seneca St via 1 st Ave S, Edgar Martinez, 4 th Ave S onto 3 rd Ave	5/3	10/0	13/9
J2: 35th Ave SW & SW Morgan St to 3rd Ave & Seneca St via 1st Ave S, Edgar Martinez, 4 th Ave S onto 3 rd Ave	3/2	9/0	7/6

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 2011 service change condition to the previous travel time report (Fall 2010) and the baseline condition (Fall 2009). The list below shows the dates of when travel time observations were collected for those conditions:

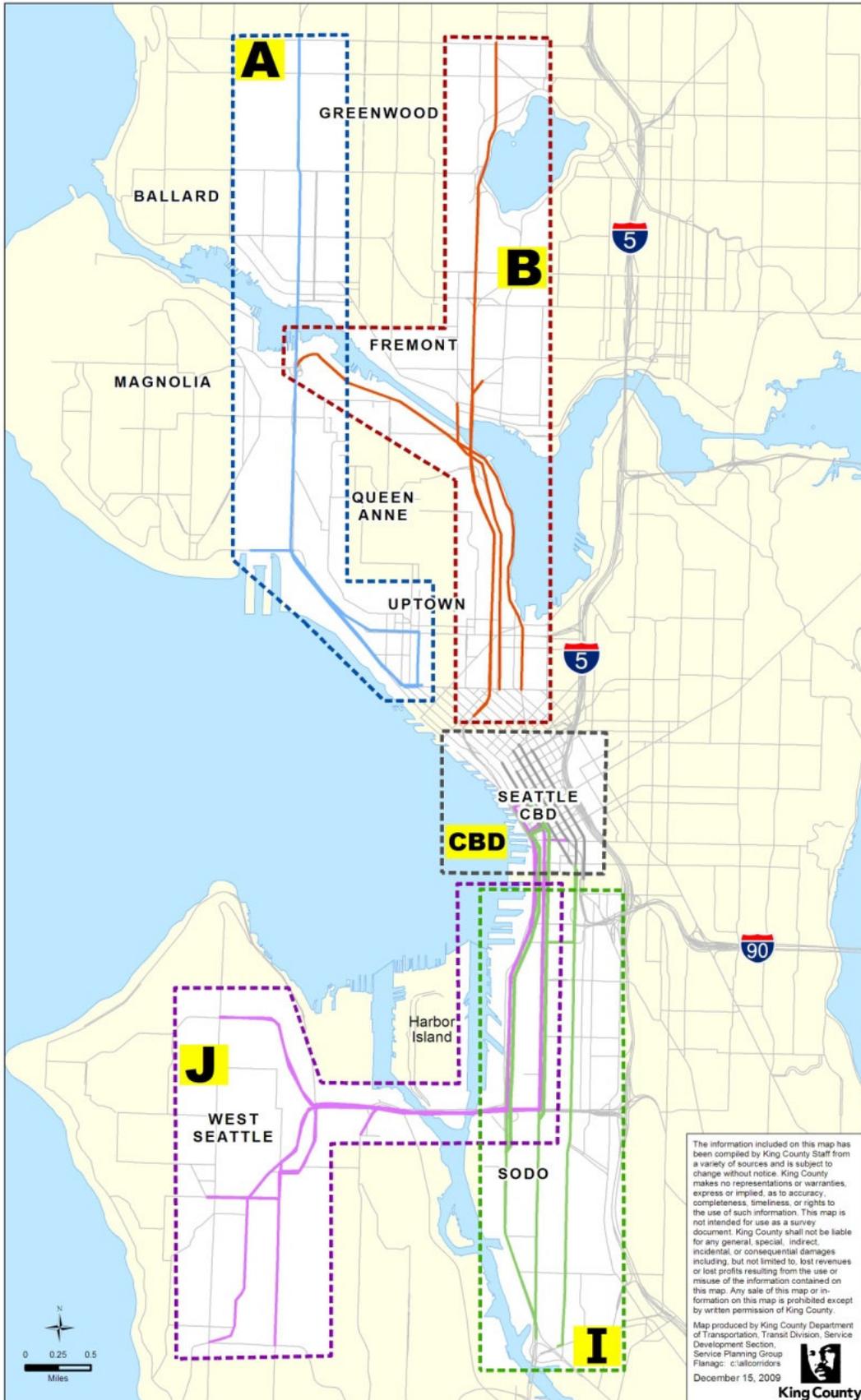
- Fall 2009 service change (baseline condition): September 21, 2009 through October 16, 2009.
- Fall 2010 service change condition: January 3, 2011 through February 4, 2011, excluding January 11 and 12 due to snow event
- Spring 2011 service change condition: May 23, 2011 through June 10, 2011, excluding Memorial Day (May 31, 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:
 - Automatic Vehicle Identification (AVI) readers installed at endpoints of key transit corridors
 - 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.

In February, at the beginning of the Spring 2011 service change, transit routings through the CBD and SODO areas were significantly modified, the most significant change was that bus routes using 1st Avenue were moved to 3rd Avenue and a new skip-stop pattern was established. The pathways that were affected by this change were adjusted for this report to provide a similar comparison with the former pathways. For example, 1st Avenue pathways that used 1st/Seneca and 1st/Columbia as the CBD endpoint now use 3rd & Seneca. The CBD1 pathway has been removed from the report.

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 Fautleroy 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	2 nd Ave/Pike	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.

** These pathways and start/end points have been modified due to the CBD service restructure in February 2011.

TRAVEL TIME DATA

*Combined Enhanced Transit Service, Bus Monitoring, and Transportation Demand Management Performance Report Volume 5
Provided King County Metro – Service Development*

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 2011, Fall 2010, and Baseline Travel Speeds

Performance by Pathway Group: Spring 2011, Fall 2010, & Baseline Comparison					
Pathway Group	Area	Scenario for Service Change	Median Speed [MPH]	AM Peak Period* Hourly Median Range [MPH]	PM Peak Period* Hourly Median Range [MPH]
A	Ballard, Interbay	Spring '11	15.8	11.8 – 22.2	12.4 – 17.6
		Fall '10	15.4	11.8 – 24.0	12.5 – 17.2
		Baseline	14.9	12.1 – 23.6	11.4 – 19.0
B	Aurora, Fremont	Spring '11	18.4	12.2 – 21.0	9.2 – 22.9
		Fall '10	18.6	11.5 – 22.5	9.6 – 22.6
		Baseline	18.6	11.0 – 22.7	11.0 – 20.3
I	SODO, Georgetown	Spring '11	17.8	15.3 – 40.0	12.3 – 23.2
		Fall '10	18.6	19.6 – 41.1	13.9 – 22.1
		Baseline	17.7	16.4 – 48.4	12.7 – 21.7
J 1 st Ave	West Seattle via 1 st Ave S	Spring '11	13.5	10.6 – 21.2	9.4 – 15.8
		Fall '10	14.4	11.5 – 17.4	10.8 – 15.0
		Baseline	15.9	11.9 – 20.7	12.4 – 21.0
J AWV	West Seattle via AWV	Spring '11	27.1	15.9 – 37.2	19.5 – 33.3
		Fall '10	28.9	19.0 – 36.1	20.8 – 37.7
		Baseline	30.1	20.1 – 36.6	22.1 – 33.8
CBD	2 nd - 5 th Avenues	Spring '11	7.4	6.6 – 9.8	5.5 – 9.9
		Fall '10	7.4	6.1 – 10.0	4.7 – 9.4
		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 2011 Highlights

The most significant new impact this period was the lane reduction on SR-99, which began on May 16, 2011. This has directly impacted Pathways I.1, J.3, J.5, and J.7 in both directions, transit travel time on this path grouping has increased one to three minutes in the morning peak hours and about five to eight minutes in the afternoon peak period. Another impact is closure of Alaskan Way south of King Street; although no transit routes travel on this portion of Alaskan Way, the closure is likely diverting additional traffic to 1st Ave South and SR-99, which are already congested.

Traffic diversion, ongoing construction activities, and the new SODO routing to and from 3rd Avenue via Edgar Martinez Way have also delivered a significant blow to 1st Avenue South travel times and reliability, affecting pathways J.1, J.2, J.4, and J.6. Since the previous period, median travel times have increased between two and ten minutes throughout the day, with the worst impacts being in the outbound direction during the pm peak. Compared to baseline conditions prior to closure of the WB on ramp at 1st & Spokane, median travel times have increased up to 13 minutes per trip. The inbound direction of these pathways is performing better, however travel time increases between one and three minutes are seen throughout the day. If this service had not been moved to 3rd Avenue, performance would likely be worse due to additional delay and need for ad-hoc reroutes in the Pioneer Square area.

Based on field observations, the worst impact of the lane reduction during the pm peak was on Columbia Street approaching the Columbia on-ramp. When SR-99 becomes congested, traffic queues spill onto Columbia Street and severely impact buses on Columbia Street and even southbound 3rd Avenue during the most congested periods. Since Columbia Street was not part of the original pathways, a new pathway has been included in this report to capture the impact of queue spillback. The new pathway is from 3rd Avenue & Seneca Street to 1st Avenue and Columbia Street, a distance of six blocks. Considering the cumulative effects of the AWW (J) pathways and the Columbia Pathway, pm travel times have increased around five to eight minutes, and travel time variation has significantly increased. The last chart in Appendix A shows travel times along this new pathway; historical data has been included in this chart to provide a comparison.

Additional highlights of changes in travel time and travel speeds observed in Spring 2011 compared to the Fall 2010 and baseline conditions are noted below. See Appendix A for details.

- The "A" Pathways show increased travel time variation and selected periods of increased median travel time, although as a whole, median travel speeds have held steady. During the reporting period, there were several special events in the Seattle Center area, which have likely contributed to occasional periods of poor travel time performance.
- Pathways B.1 and B.2, using Aurora Avenue N, show significant increases in median and 75th percentile travel time during the reverse pm peak flow. This is likely due to queues on SR-99 from the lane reduction extending past the Battery Street Tunnel and impacting these inbound routes. Pathway B.2 shows travel time increase around 2 minutes during this period.
- Pathway B.3 has shown increased median travel time and variation throughout the day. This pathway has likely been impacted by paving activities on Dexter Avenue, and could be impacted by ongoing construction on Mercer Street. Pathway B.4 shows mixed results.
- Pathway CBD3 has shown slight increases in median travel times throughout the day in the northbound direction, while southbound has slightly decreased most of the day. Travel time variation has generally improved or held steady. This is encouraging considering that the volume of buses on 3rd Avenue was significantly increased this service change. Southbound median and 75th percentile travel times are now highest in the 5 pm hour, possibly due in part to queue spill-back from Columbia Street.

SERVICE ADDITIONS TRAVEL TIME

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

Route 21X [Pathway J.3] – Pathway J.3 shows increases of two to four minutes in median travel time during the am peak flow, most likely due to lane reduction on SR-99. In the pm peak, the travel time increase is in the range of one to three minutes for Pathway J.3. Route 21X also uses the Columbia pathway; considering the cumulative effects of these two pathways, the total increase is around five to eight minutes during the pm peak. Note that the route 21X does not follow the J.3 pathway exactly, but parallels a significant portion of it.

Route 54 [Pathway J.3] – Pathway J.3 shows increases of two to four minutes in median travel time during the am peak flow, most likely due to lane reduction on SR-99. In the pm peak, the travel time increase is in the range of one to three minutes for Pathway J.3. Route 54 local and express also use the Columbia pathway; considering the cumulative effects of these two pathways, the total increase is around five to eight minutes during the pm peak.

Route 56X [Pathway J.7] – Pathway J.7 is a peak-only pathway using the AWV that has shown increases in travel time during both am and pm peaks, consistent with the J.3 pathway discussed above. Route 56X now uses the Columbia pathway via 3rd Avenue, having previously used the CBD1 pathway on 1st Avenue.

Route 121 [Pathway I.1] – Pathway I.1 has also been impacted by SR-99 lane reduction, although not as much as the other J pathways. Median travel time during the am peak flow has increased between one and two minutes. PM peak travel times, including Columbia Street impacts, have increased between two and four minutes. This pathway travels on SR-99 south of the lane reduction area and probably benefits somewhat from lower traffic volumes south of Spokane Street, and therefore is impacted less than other J pathways.

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 contract was originally for December 2008 through June 2013. Staff is currently working on an amendment to extend the due date to June 2014 in order to better compliment viaduct construction timelines.

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. Metro will use \$150,000 to fund transit incentives and \$200,000 to expand the Residential Outreach Project. Metro will also contribute \$700,000 of in-kind support to both the Downtown TDM project and the South End SR 99 Corridor TDM project.

A description of the various TDM projects follows TDM Table 1 below:

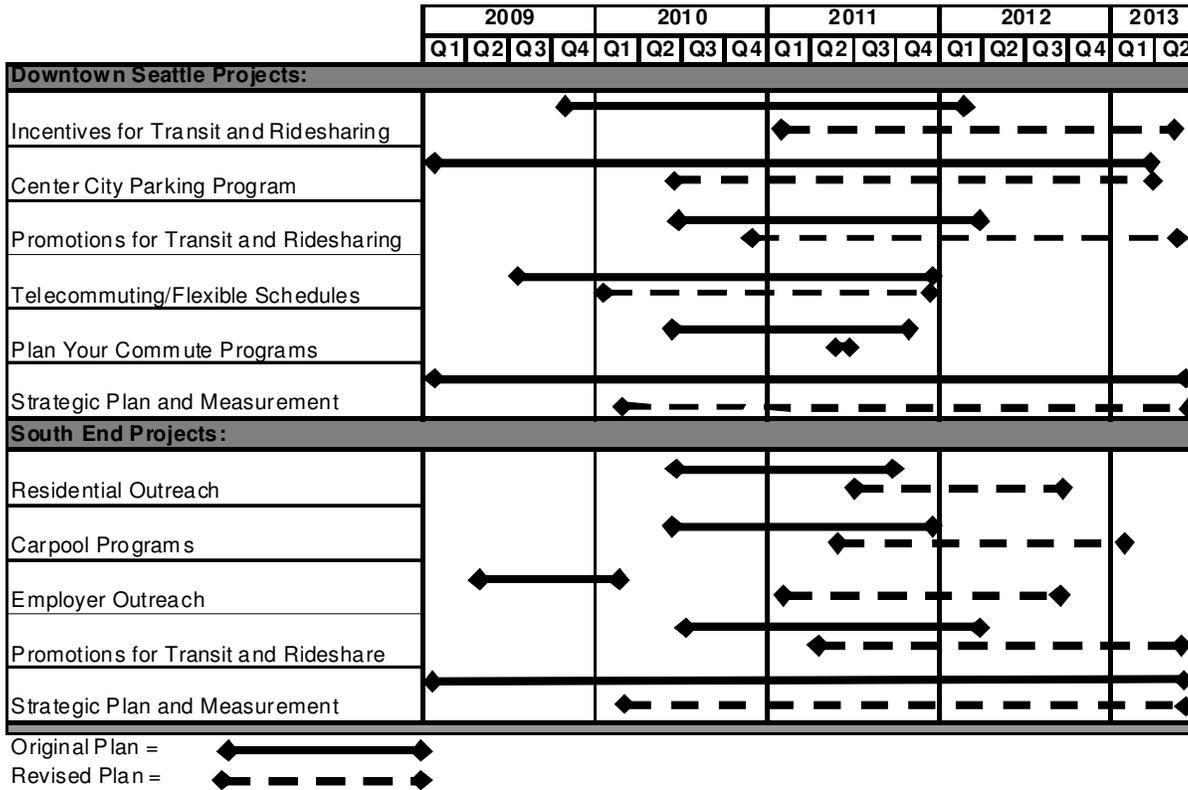
TDM Table 1

TDM Project Definitions for Downtown Seattle and the South End SR 99 Corridor	
Downtown TDM Project	<p><i>Primary Market:</i> Downtown Seattle</p> <p><i>Secondary Market:</i> Center City Urban Centers (Lower Queen Anne, South Lake Union, Capitol Hill, First Hill), Ballard/Interbay, Upper Queen Anne, and Fremont.</p>
Program	Description
Incentives for Transit and Ridesharing \$350,000 WSDOT \$150,000 Metro Match	Provide a minimum of 2,500 transit pass incentives to downtown Seattle employers and 1,000 incentives to new carpoolers.
Reduce Single Occupancy Vehicles (SOV) Commuter Parking \$225,000	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 \$150,000	Promote new transit services and all rideshare programs to a minimum of 75,000 households and/or employees.
Teleworking/Flexible Schedules \$140,000	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 \$75,000	Provide one-on-one consultations about commute options with Plan Your Commute Events. Information and free bus ride tickets are usually given to participants.
Strategic Plan and Measurement \$25,172	Analyze and report on overall results of transportation demand management efforts
Residential Outreach \$300,000 WSDOT \$200,000 Metro match	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 \$150,000	Offer 1,000 incentives to new carpoolers in the SODO/Duwamish and West Seattle areas.
Promotions for Transit and Ridesharing \$167,000	Promote new transit services and all rideshare programs to a minimum of 90,000 households.
Employer Outreach \$100,000	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 \$25,440	Analyze and report on overall results of transportation demand management efforts

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. Note that Plan Your Commute Programs began and ended in the second Quarter 2011. The program schedule is below:

TDM Table 2



TDM Program Update

Transportation Demand Management programs are designed to build upon and complement existing projects and services that help keep people and goods moving in the downtown Seattle area, including transit service, vanpools, high occupancy vehicle lanes, park and ride lots, bike routes and more. In addition, extensive public information and outreach will help travelers get educated about their options and make smarter travel choices, along with the information they need about construction and traffic disruptions.

During the February through June 2011 time frame, the Incentives for Transit and Ridesharing, the Reduce SOV Commuter Parking, and the Teleworking programs continued. Also during this time, we implemented the remainder of the TDM projects. Listed below in TDM Table 3 are the TDM program updates for February to June 2011.

TDM Table 3

TDM Program Update – (February - June 2011)	
Incentives for Transit and Ridesharing	<ul style="list-style-type: none"> ▪ Distributed 3,111 ORCA transit passes to date which are estimated to reduce 228 daily trips. ▪ Promoted rideshare on radio and internet banner ads as well as residential mailings and employer consults. Launched commuter incentives to public. ▪ Expanded commuter incentives to reward vanpool and vanshare participants.
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	<ul style="list-style-type: none"> ▪ Increased program awareness through advertising in neighborhood blogs, Seattle Met magazine, and KUOW radio. Also sponsored Dine Out For Life event. ▪ Identified Phase 2 strategic garages; developed a subscription fee plan for participating garages to begin in 2013 supporting e-Parks's annual marketing program and wireless communications.
Promotions for Transit and Ridesharing	<ul style="list-style-type: none"> ▪ Included notice of transit trip additions in Metro Timetables and Schedules and on website. ▪ Launched the website: www.kingcounty.gov/GetYouThere which provides information on how to get around during construction. ▪ Produced and distributed introductory brochure, mailer, radio ads and other promotional materials.
Teleworking/Flexible Schedules	<ul style="list-style-type: none"> ▪ Marketed workshop to small and commute trip reduction employers. Conducted workshop Feb 17. ▪ Implemented Russell Investments teleworking program. ▪ Worked with Starbucks, Gates Foundation and Russell who employ 3,700 people and have 490 employees participating in the telework program. ▪ Telework pilot was approved at Fred Hutchinson Cancer Center. ▪ Met with University of Washington, Vulcan, Amazon, Fisher Communications, Hargis Engineering. These employers have approximately 28,500 employees. ▪ Revised marketing materials for WorkSmart and coordinated activities with WSDOT Toll Division.

<p>Plan Your Commute</p>	<ul style="list-style-type: none"> ▪ Conduct cold calls to businesses in the AWW travel shed, to be followed up by individualized meetings and presentations with interested businesses. ▪ Made calls to about 1,500 businesses in the AWW travel shed. Ensuing presentations to employers/employees underway through end of June.
<p>Residential Outreach</p>	<ul style="list-style-type: none"> ▪ Performed stakeholder outreach, refined program approach, designed print materials for West Seattle, White Center, South Park, and Georgetown programs. ▪ White Center, South Park, Georgetown programs launched to the public in June reaching out to 14,100 households with 433 participants. The West Seattle program will launch in July.
<p>Carpool Program</p>	<ul style="list-style-type: none"> ▪ Coordinated AWW outreach efforts with SR 520 staff. ▪ Launched commute incentives to public. ▪ Attended transportation events at employer worksites to promote commute incentives. ▪ Developed promotional materials for commute incentives. ▪ Promoted commute incentives within RideshareOnline.com ▪ Expanded commute incentives to reward vanpool and vanshare participants. ▪ More than 1,200 participants received commute incentives for carpooling or vanpooling. They are estimated to have reduced more than 500 daily trips.
<p>Employer Outreach</p>	<ul style="list-style-type: none"> ▪ King County Metro and Commute Seattle staff had one-on-one meetings with employers. ▪ Distributed 27 ORCA transit passes to these employers.

TDM PERFORMANCE

Each TDM task has a trip reduction target set by contract (GCA 5865). 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.

It is difficult to accurately measure progress in achieving trip reduction targets. Because it is hard to attribute a trip change to a single factor. 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. Also, broader factors like the price of gas, seasonal effects, unemployment, and other economic factors, can also influence a traveler's choice.

The majority of TDM activities began in spring 2011. By July 2011, all TDM activities were launched. Performance data has begun to trickle in. This report provides early information on progress made to date.

As of June 2010, 3,111 ORCA transit passes have been sold and 1,216 commute incentives have been distributed exceeding the required deliverables for these tasks. This is estimated to have reduced 734 daily trips.

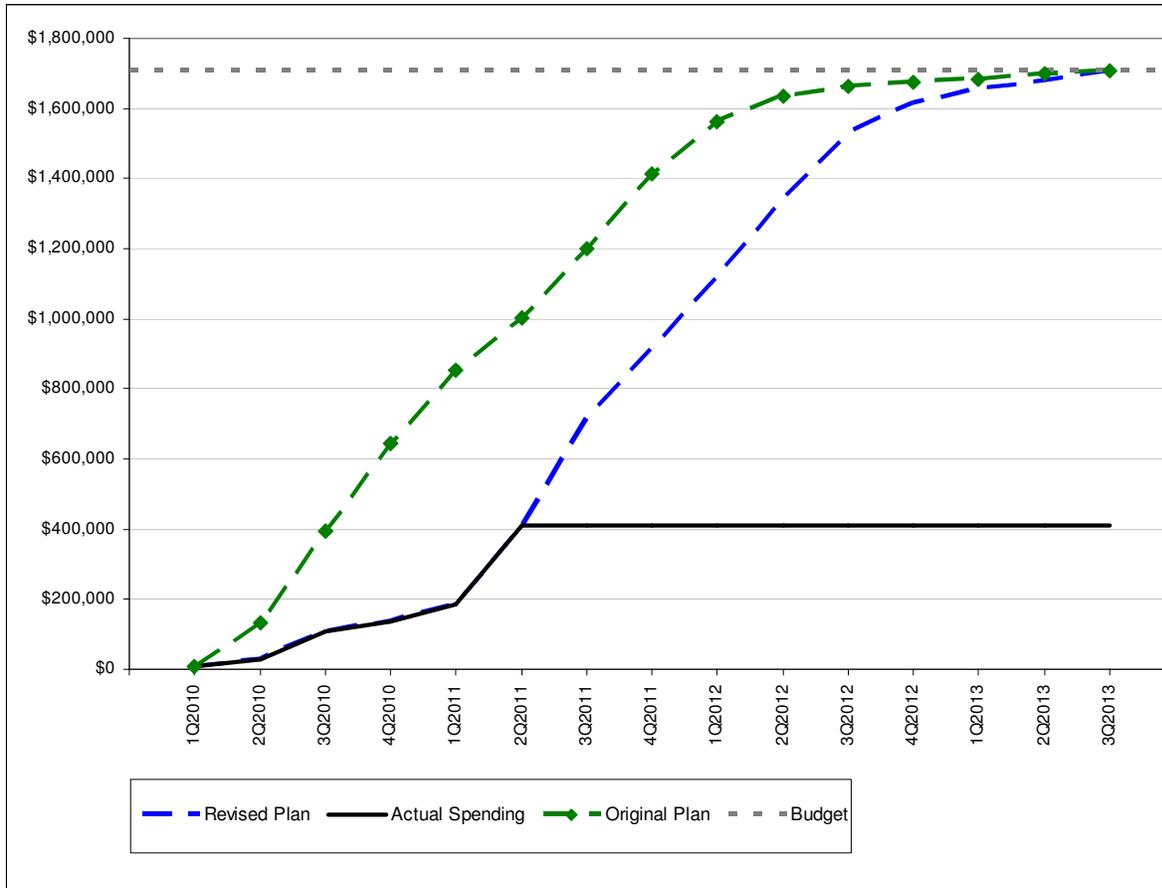
TDM Impacts: Table 4

Activity	Trip Reduction (round trips reduced daily)		Individual Metrics		
	Target for entire program period	Current performance	Description	Target for entire program period	Current performance
Enhanced Transit Service & Downtown / South End Transportation Demand Management					
Promotion of Enhanced Transit Service / Enhanced Transit Service	1,100		Employees / Households in Downtown	75,000	850
			Households in South End	90,000	75,000
Downtown Transportation Demand Management					
Incentives for Transit	240	228	Transit Pass Incentives	2,500	3,111
Incentives for Ridesharing	380		Carpool Incentives	1,000	
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	200		Incentives to Garages	5	0
			Stalls for Conversion to Short Term	2,000	
Teleworking	710	6	Number of Companies Participating	15-20	8
Plan Your Commute	740		Pledges	1,800	
South End Transportation Demand Management					
Residential Outreach	390	36	Household Participation Rate	10%	3.1%
Carpool Program	270	506	Carpool Incentives	1,000	1,216
Employer Outreach	100	8	Transit Passes Distributed	N/A	27
TOTAL	4,130	784			

TDM BUDGET AND EXPENDITURE – JUNE 2011

The estimated cash flow as of June 2011 by quarter is listed in the table below.

TDM Table 5



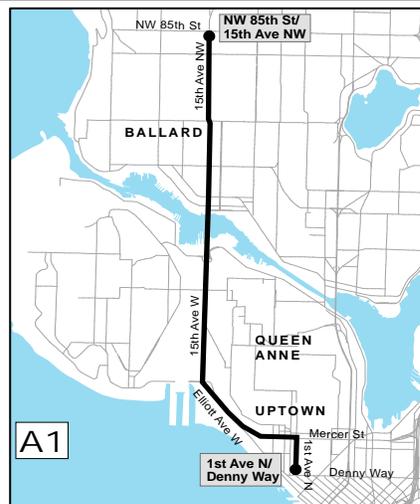
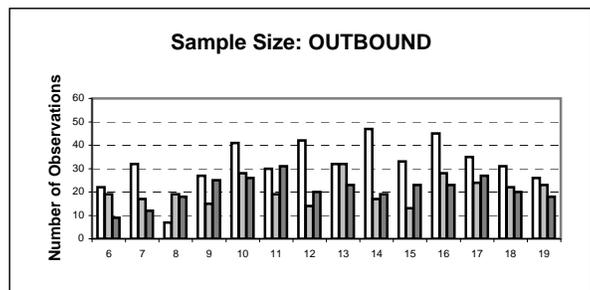
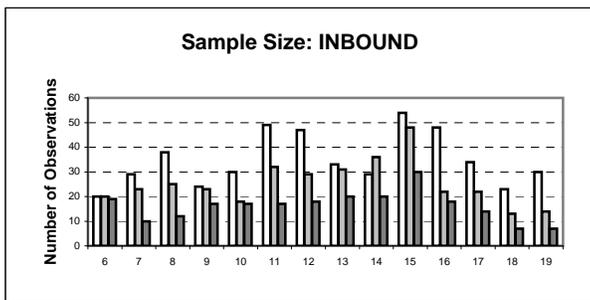
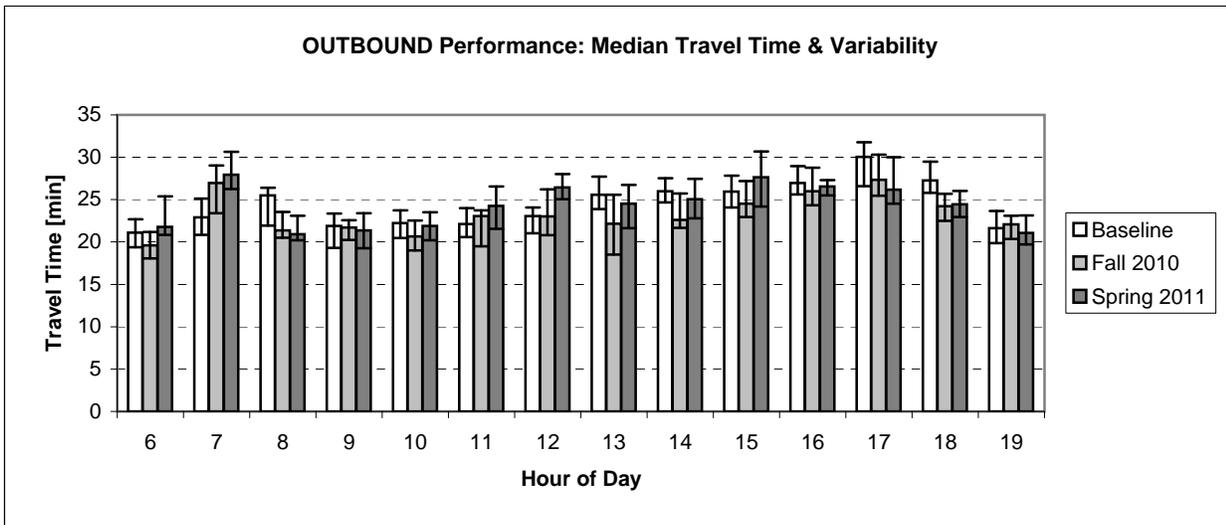
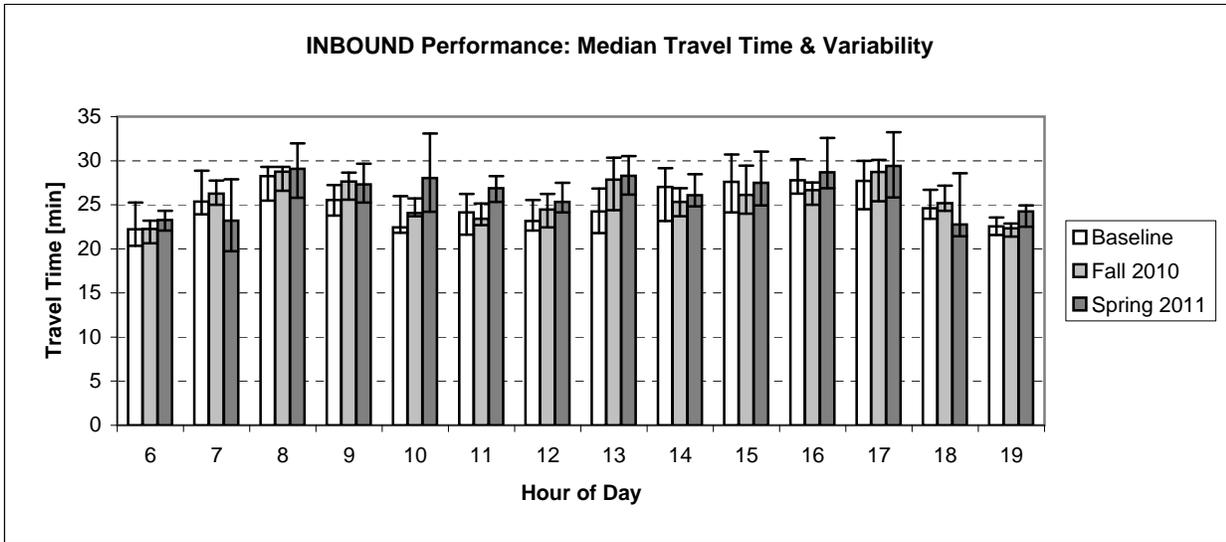
Expenditures

(All expenditures (planned, actual or revised) should be entered in the quarter the billing will be submitted to WSDOT not the quarter in which the work is performed.)

Quarter	Actual Spending	Revised Plan
1Q2010	\$7,269	
2Q2010	\$21,135	
3Q2010	\$80,685	
4Q2010	\$29,185	
1Q2011	\$47,981	
2Q2011	\$223,859	
3Q2011		\$305,871
4Q2011		\$203,622
1Q2012		\$199,789
2Q2012		\$226,115
3Q2012		\$185,990
4Q2012		\$83,160
1Q2013		\$39,000
2Q2013		\$26,043
3Q2013		\$27,908
Total	\$1,707,612.00	

Pathway A.1

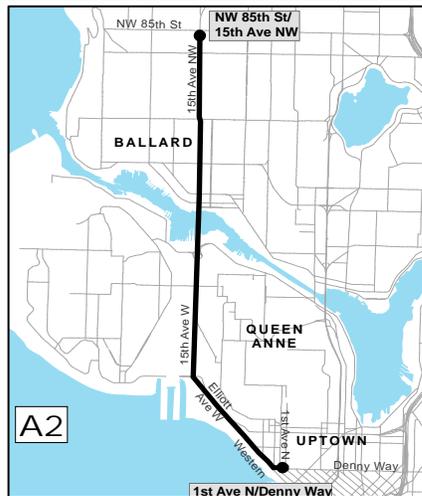
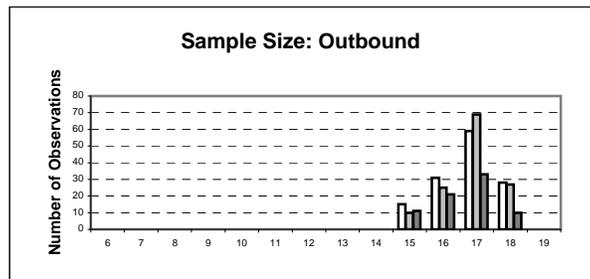
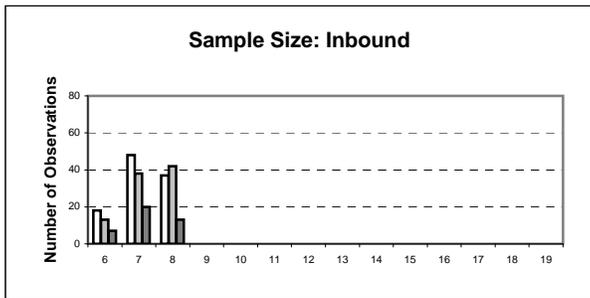
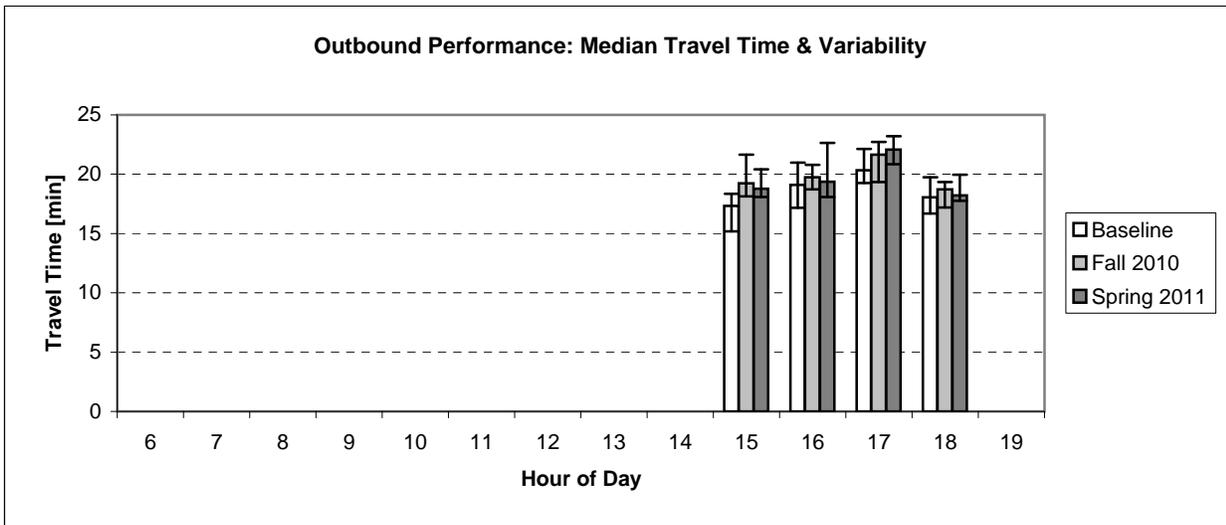
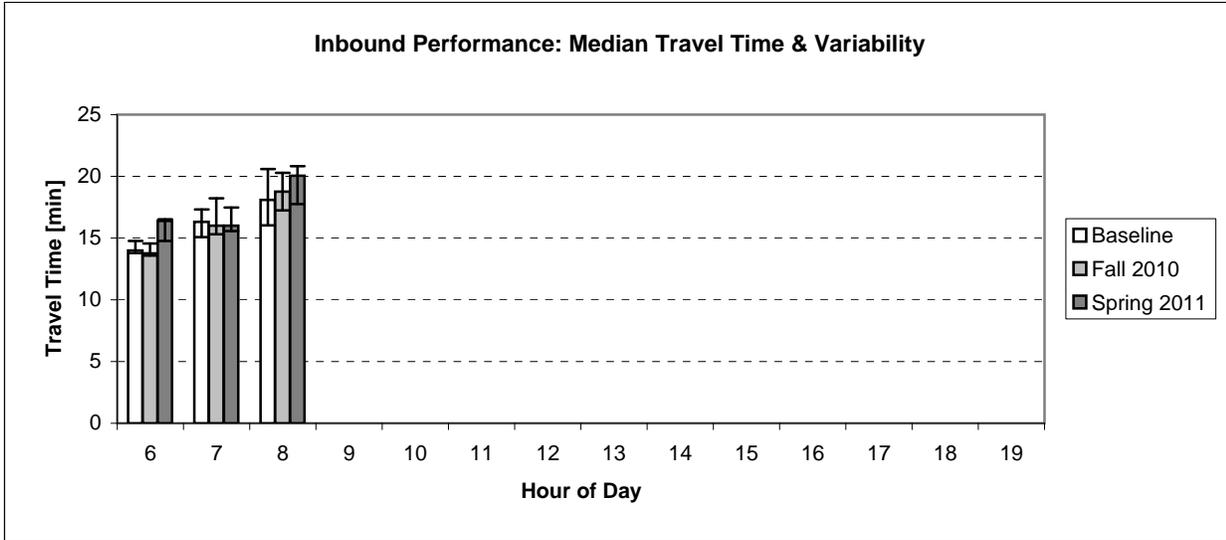
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Mercer



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway A.2

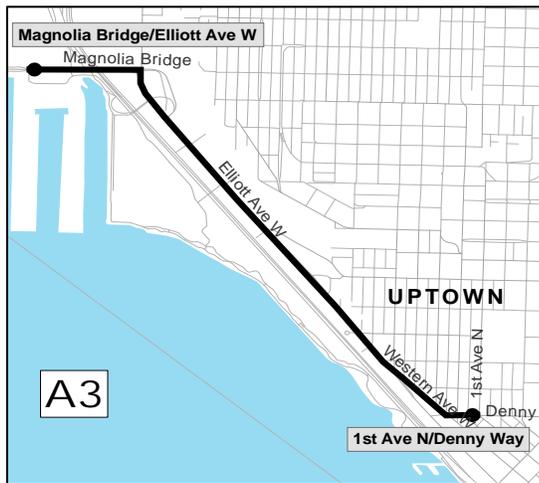
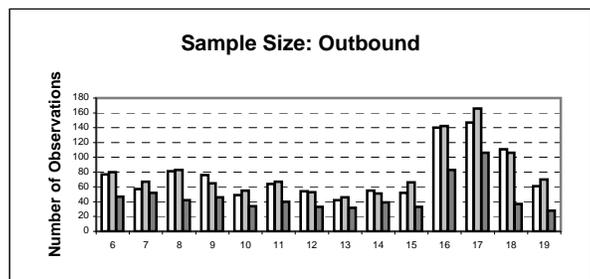
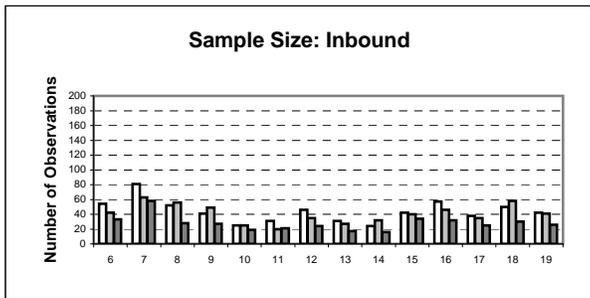
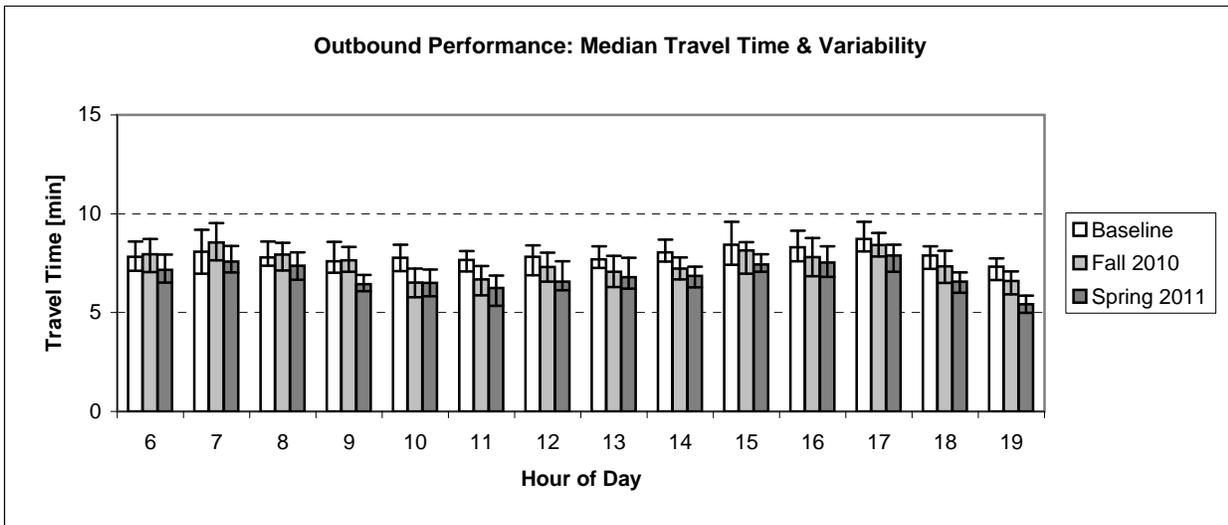
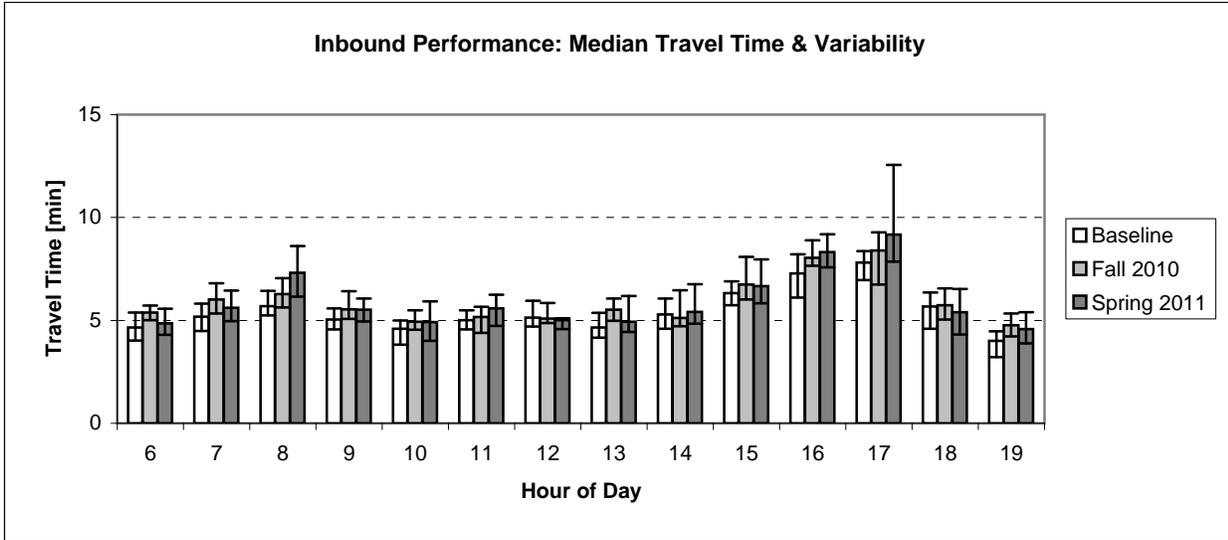
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Western (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway A.3

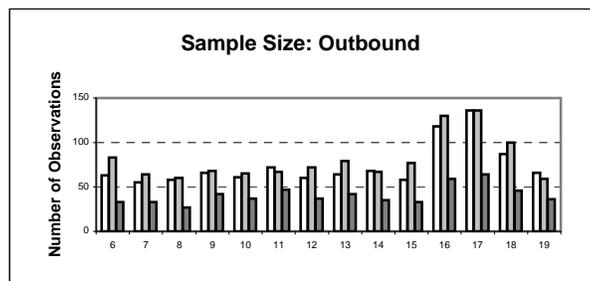
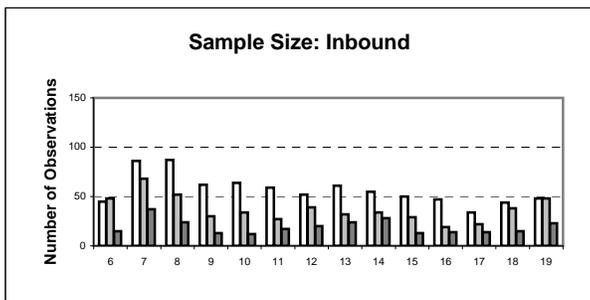
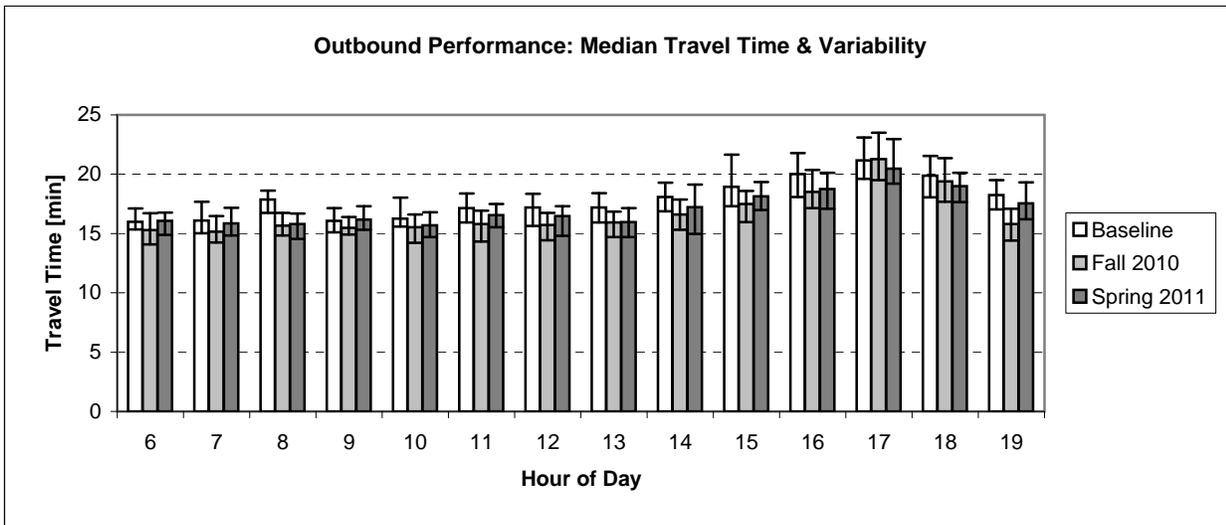
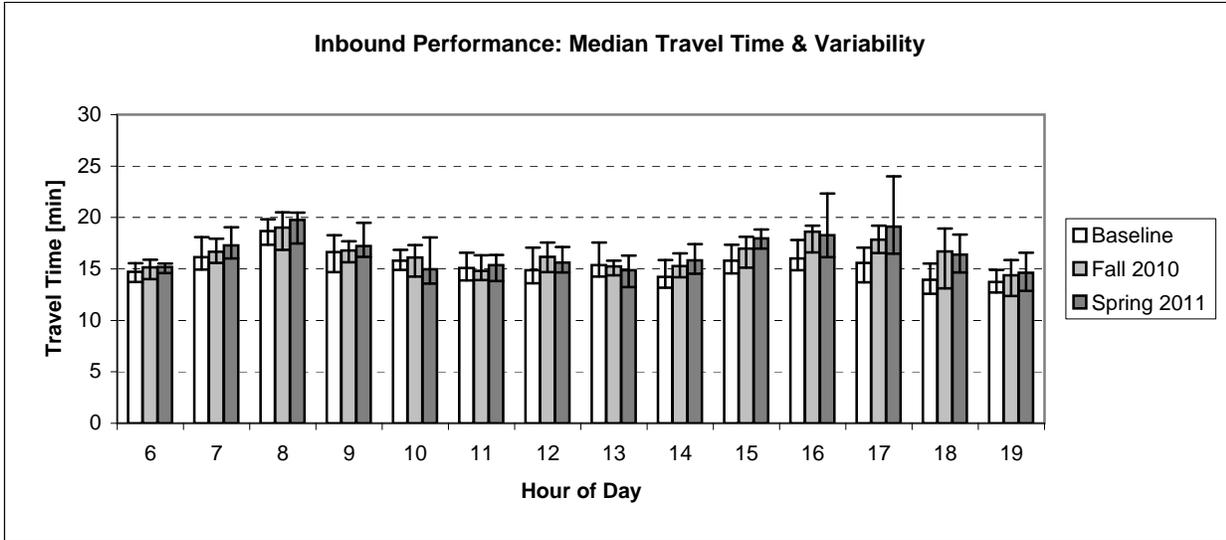
Magnolia Bridge to 1st Ave & Denny Way via Elliott/Western



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway B.1

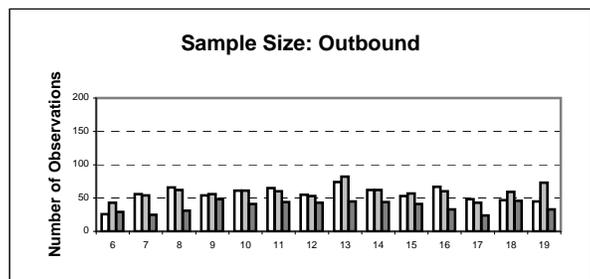
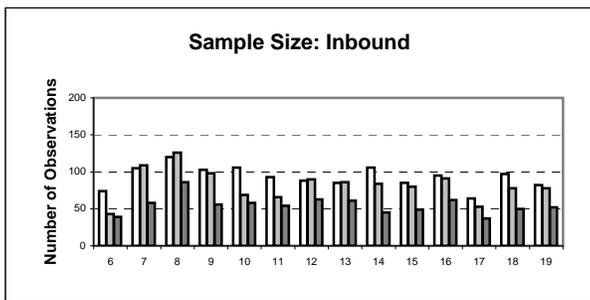
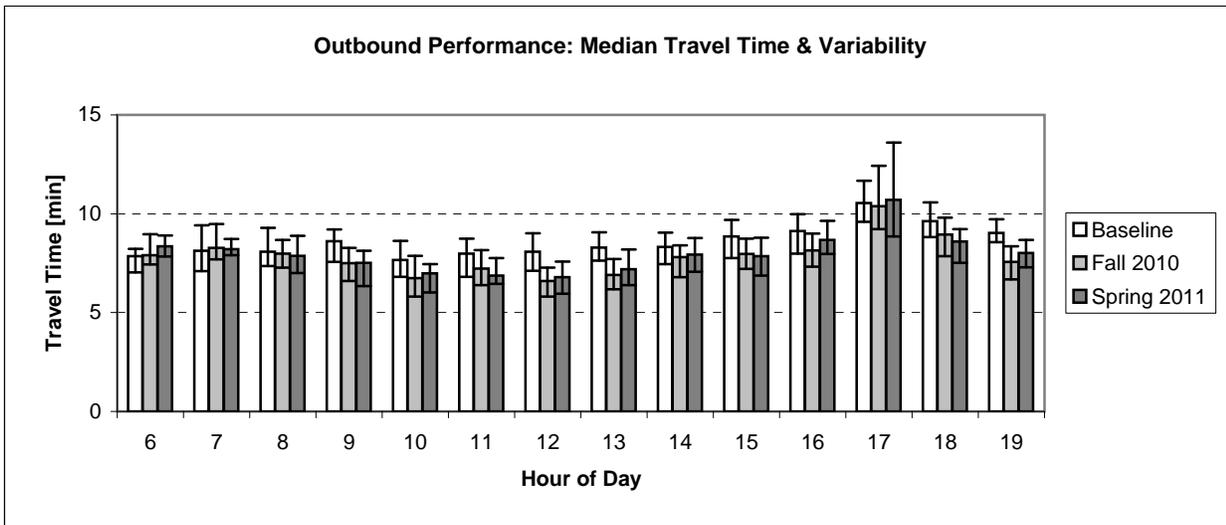
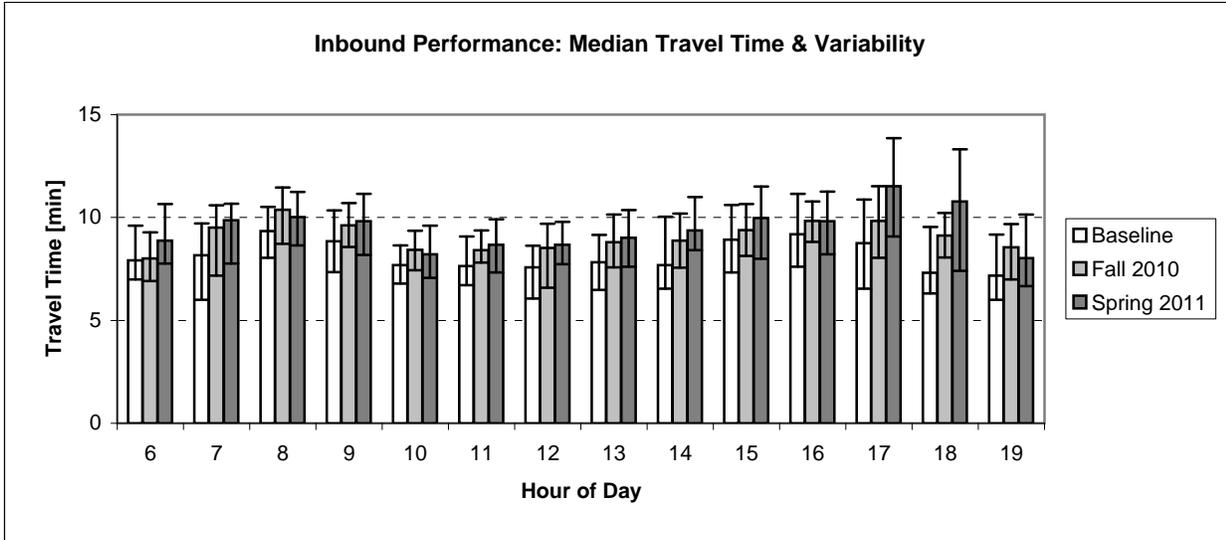
Aurora Ave N & N 85th St to 3rd Ave & Battery St via Aurora Ave



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway B.2

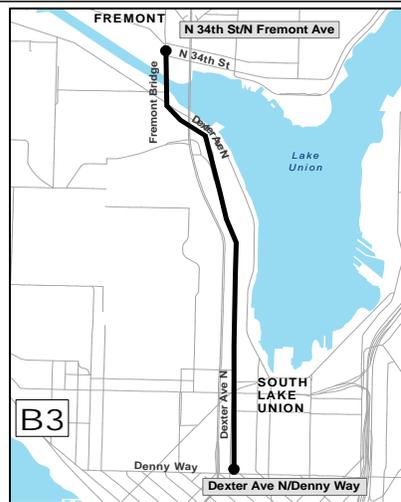
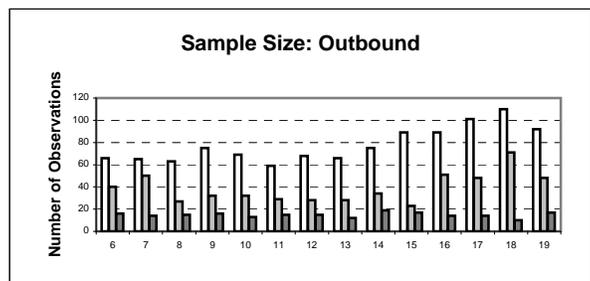
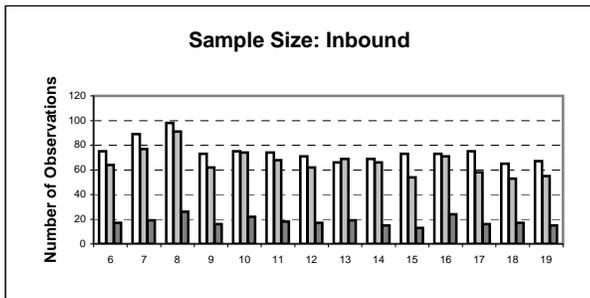
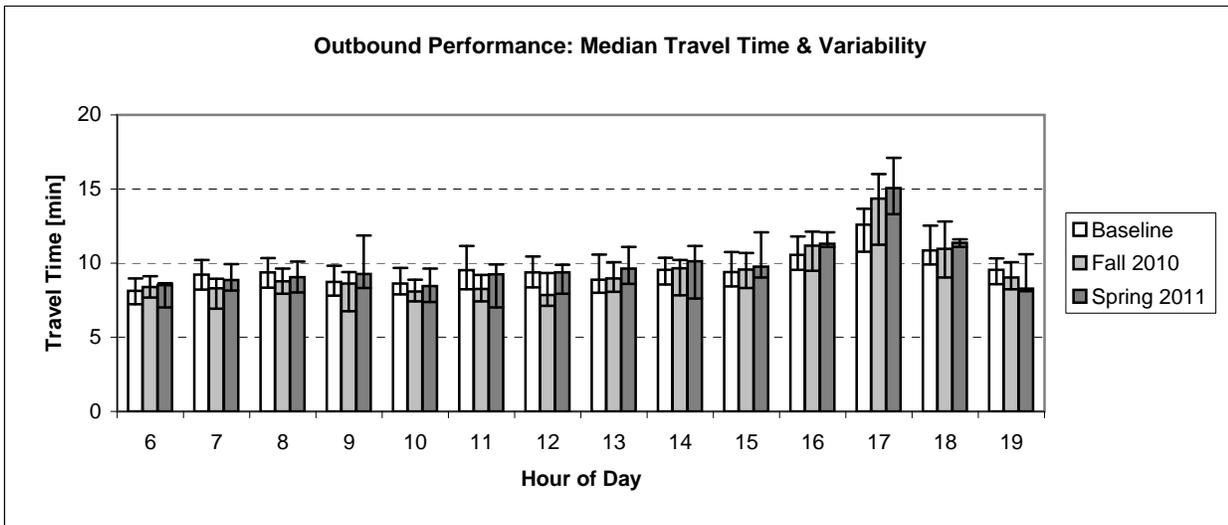
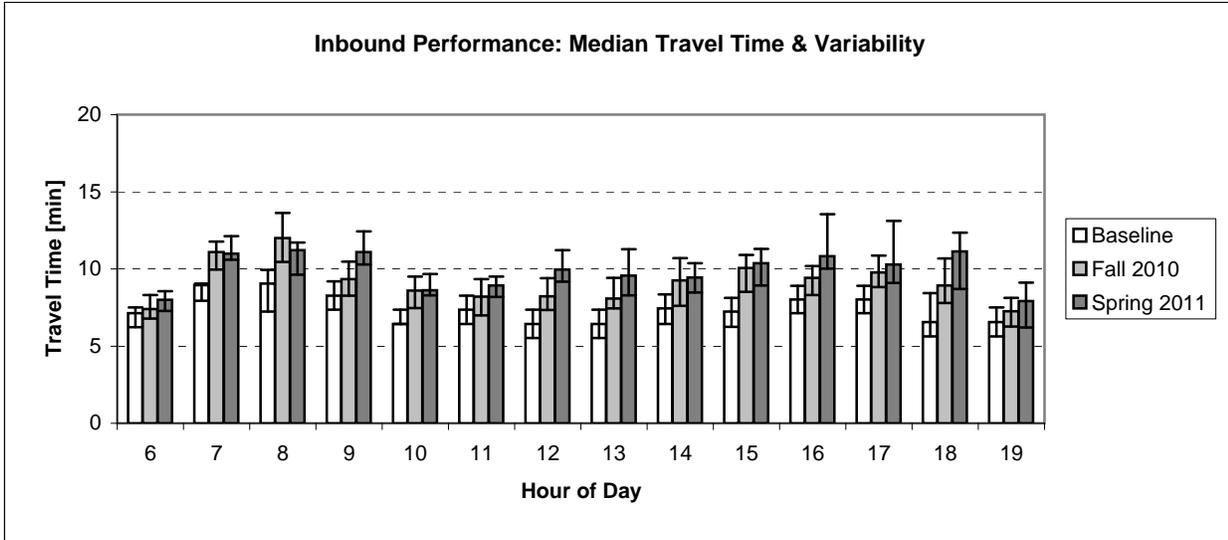
Bridge Way & N 38th St to 3rd Ave & Battery via Aurora Ave



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway B.3

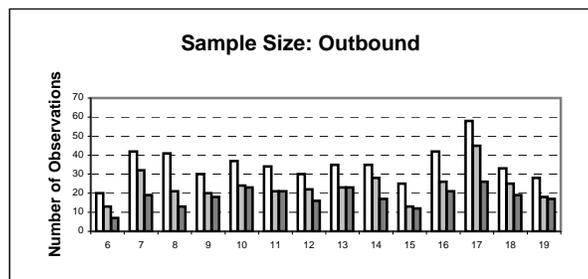
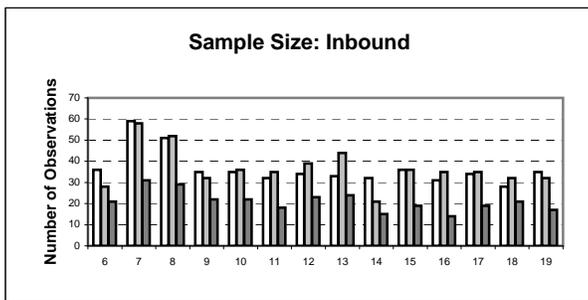
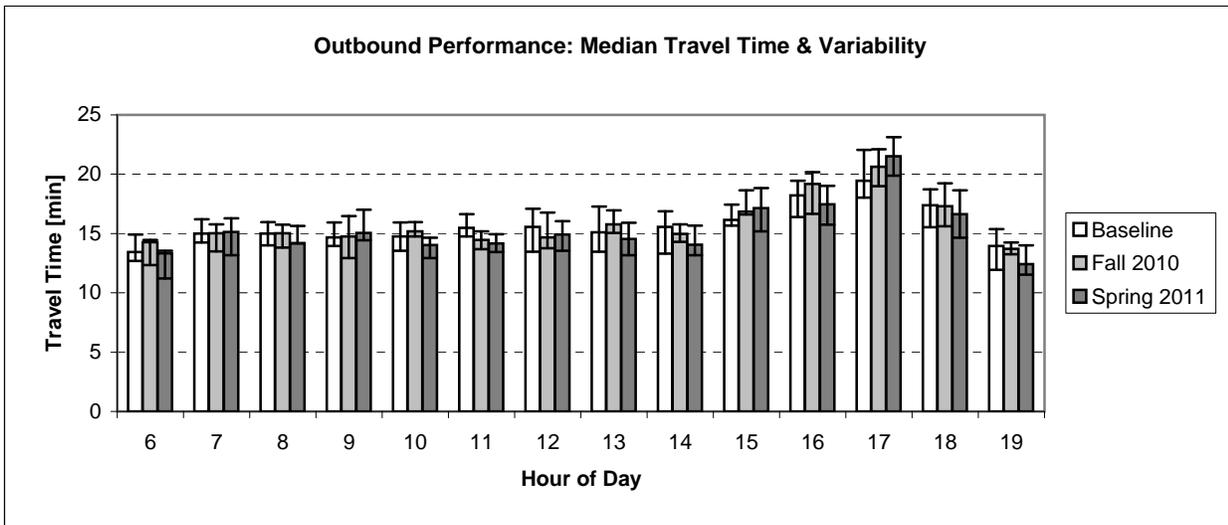
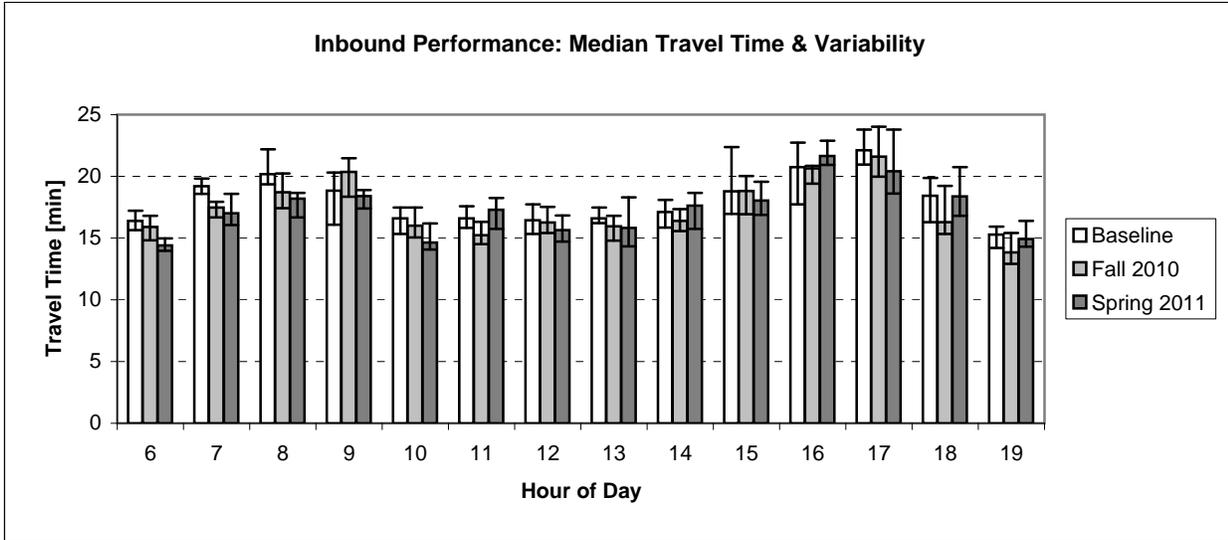
Fremont Ave N & N 34th St to Denny Way & Dexter Ave via Dexter



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 2010	1/3/11 - 2/4/11	AVL
Spring 2011	5/23/11 - 6/10/11	AVL

Pathway B.4

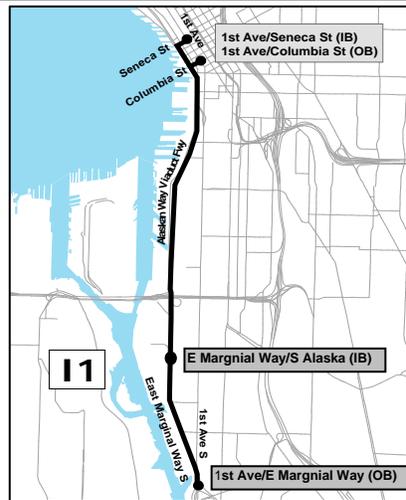
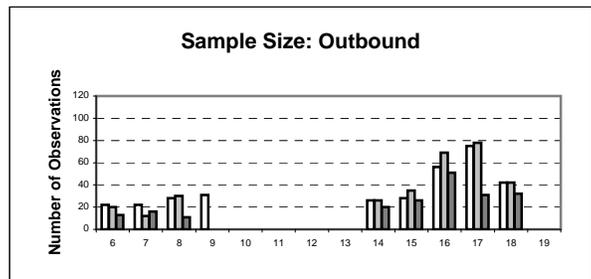
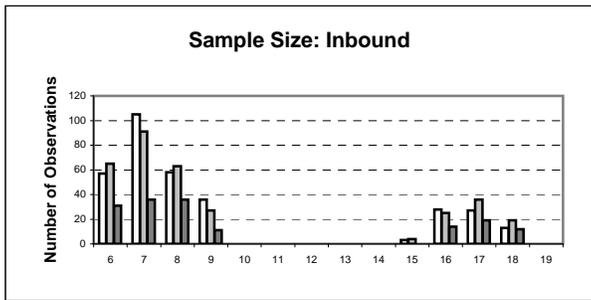
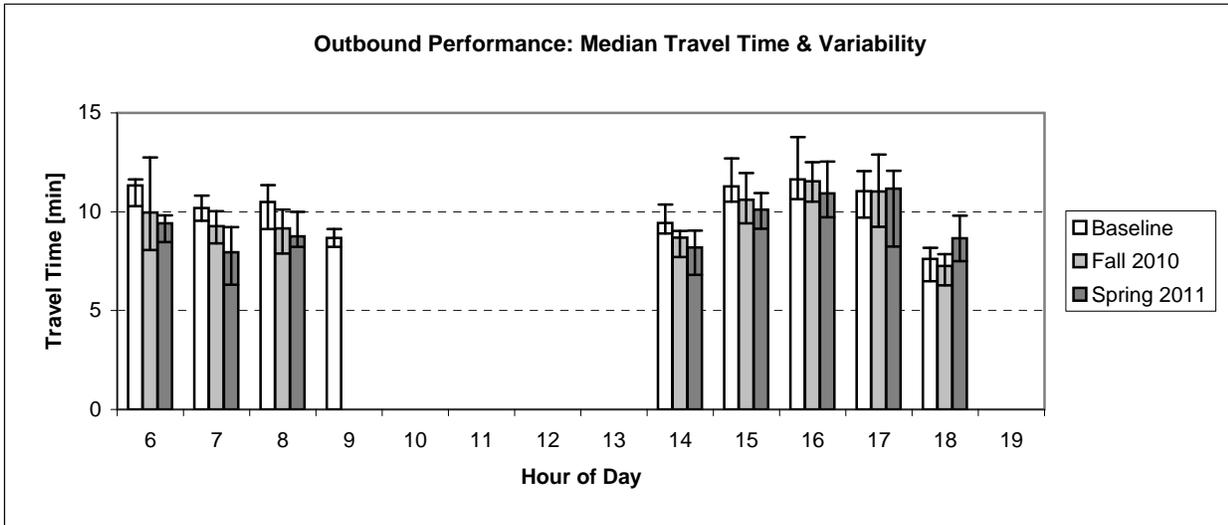
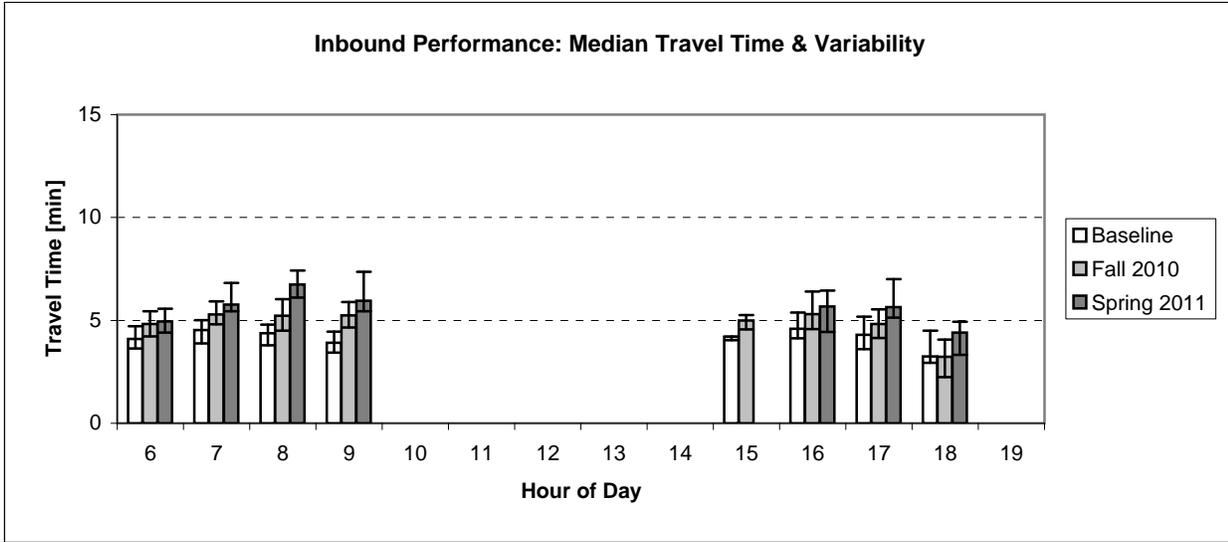
Ballard Bridge to Denny Way & Westlake Ave via Nickerson/Westlake



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 2010	1/3/11 - 2/4/11	AVL
Spring 2011	5/23/11 - 6/10/11	AVL

Pathway I.1

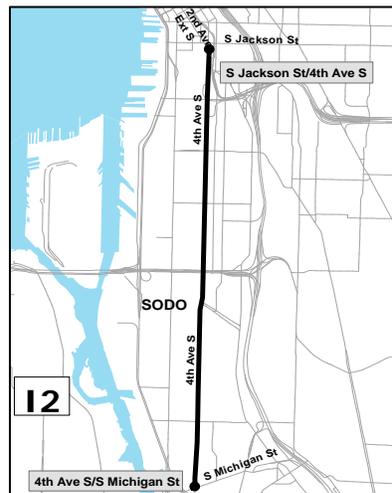
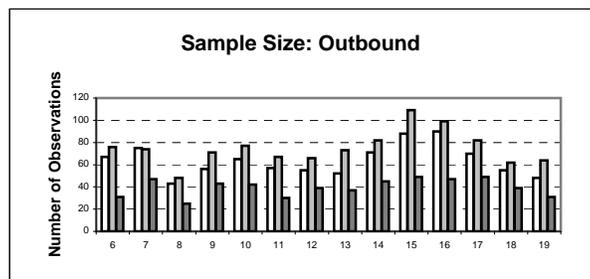
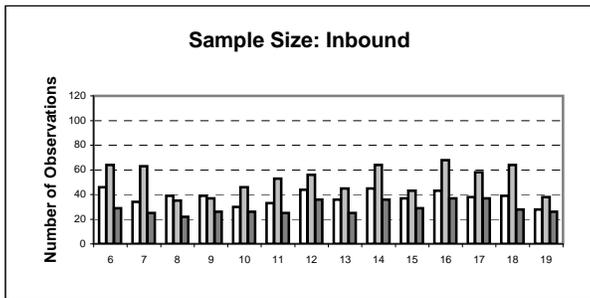
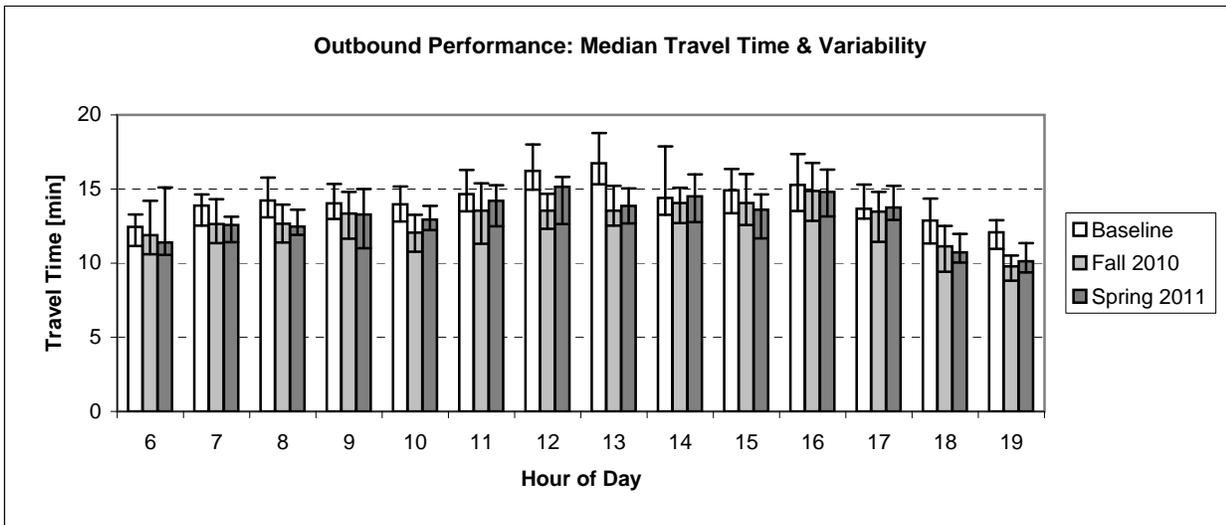
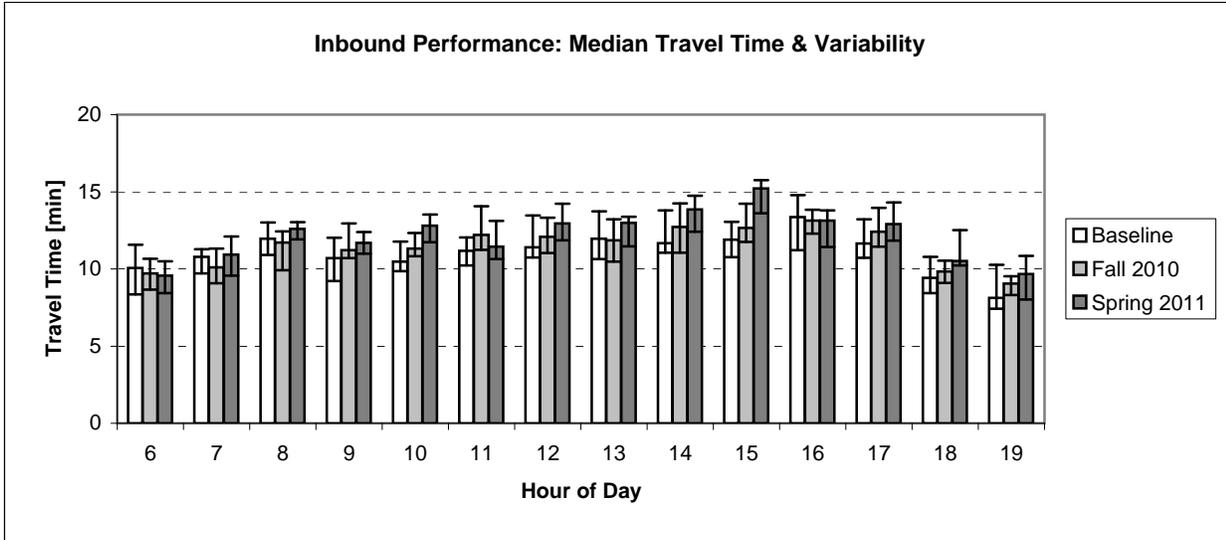
East Marginal Way & 1st Ave/Alaska St to 1st Ave & Seneca/Columbia St via Marginal/AWV



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway I.2

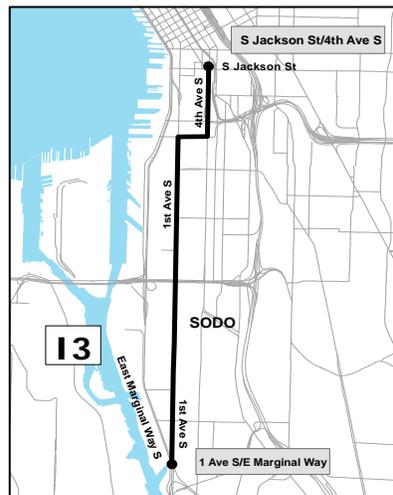
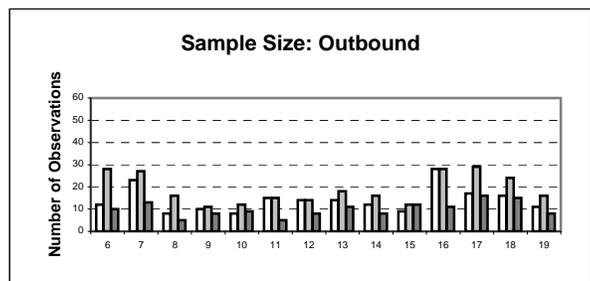
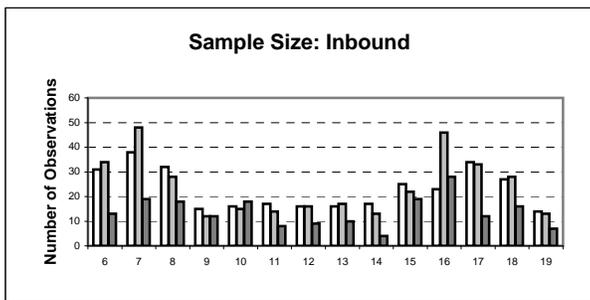
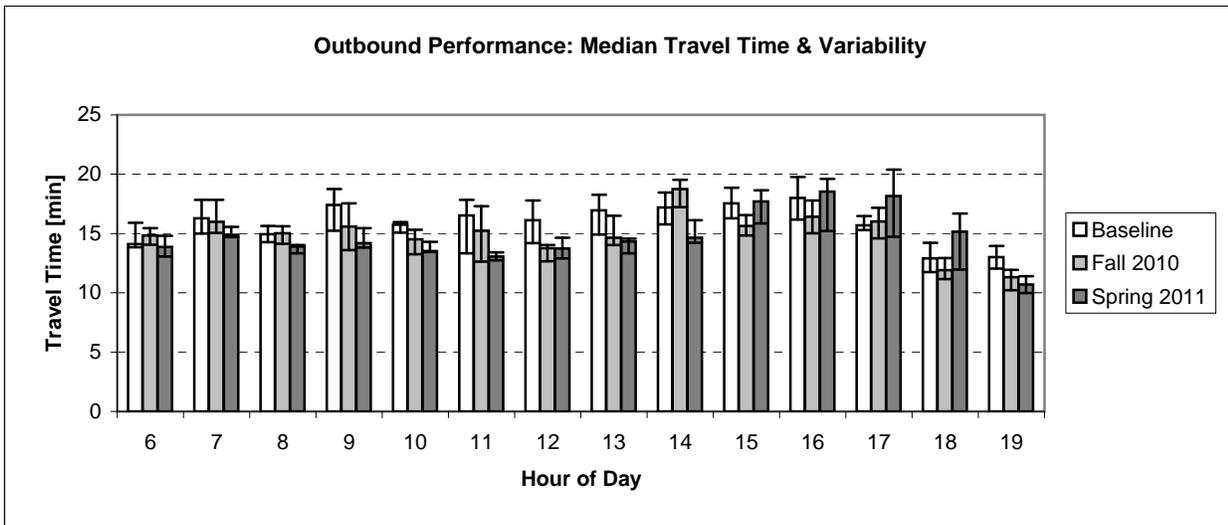
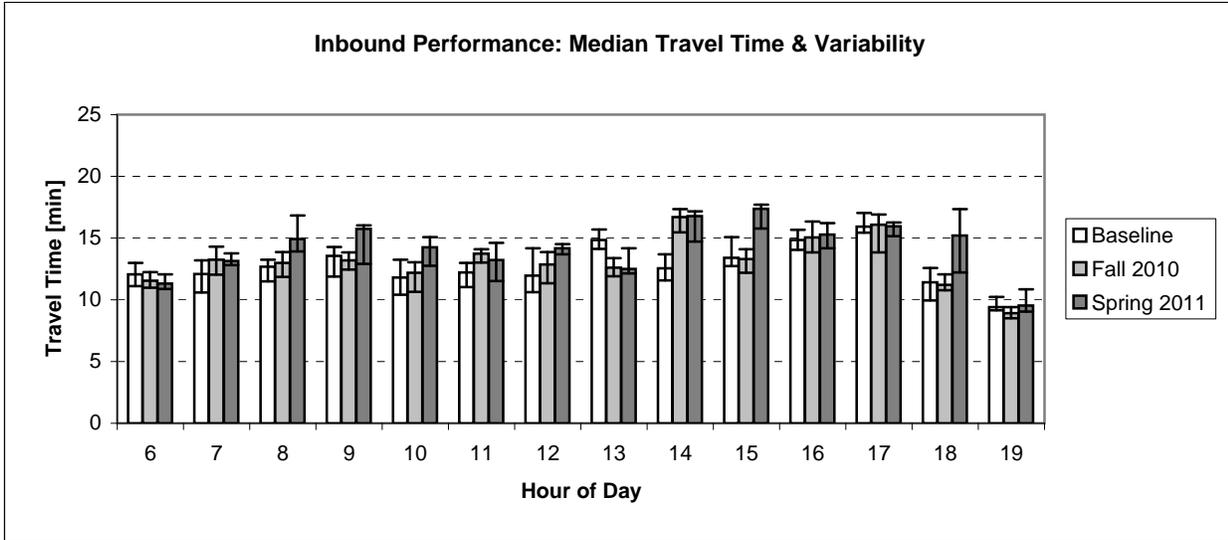
4th Ave S & S Michigan St to 4th/2nd Ave & Jackson St via 4th Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway I.3

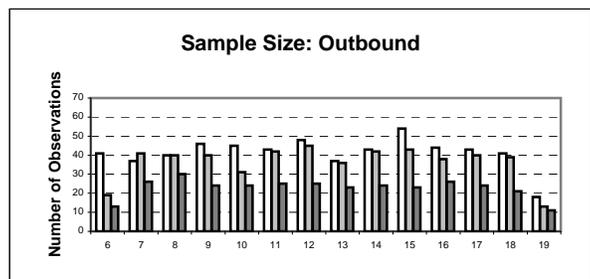
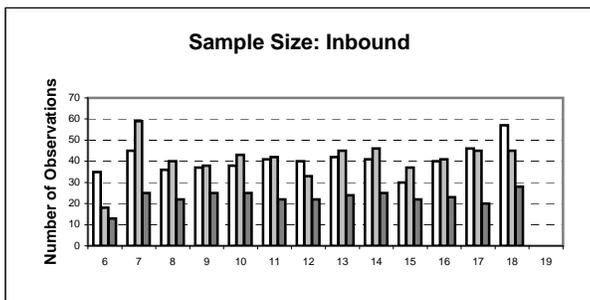
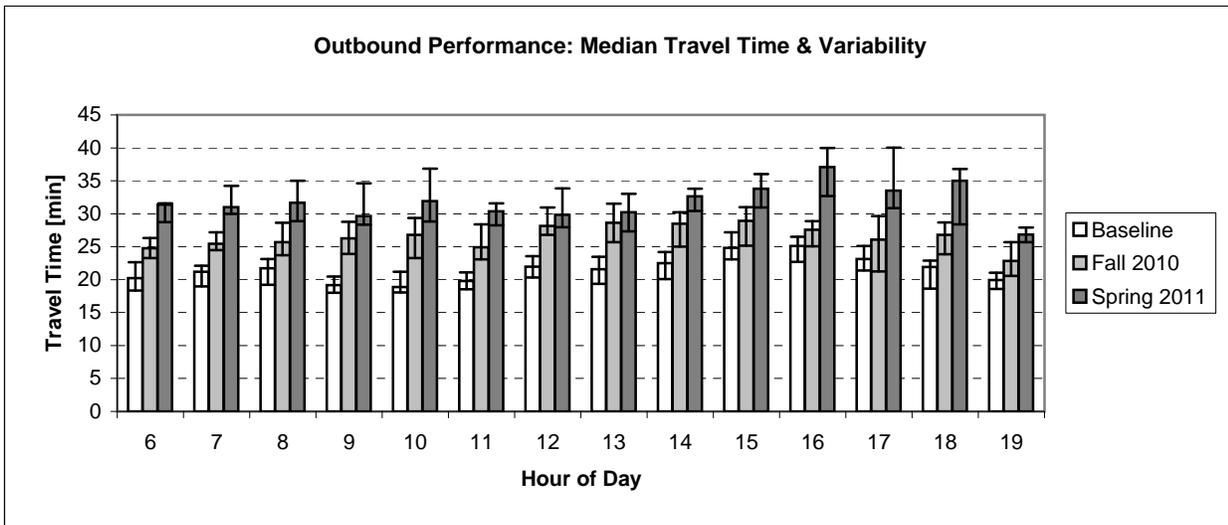
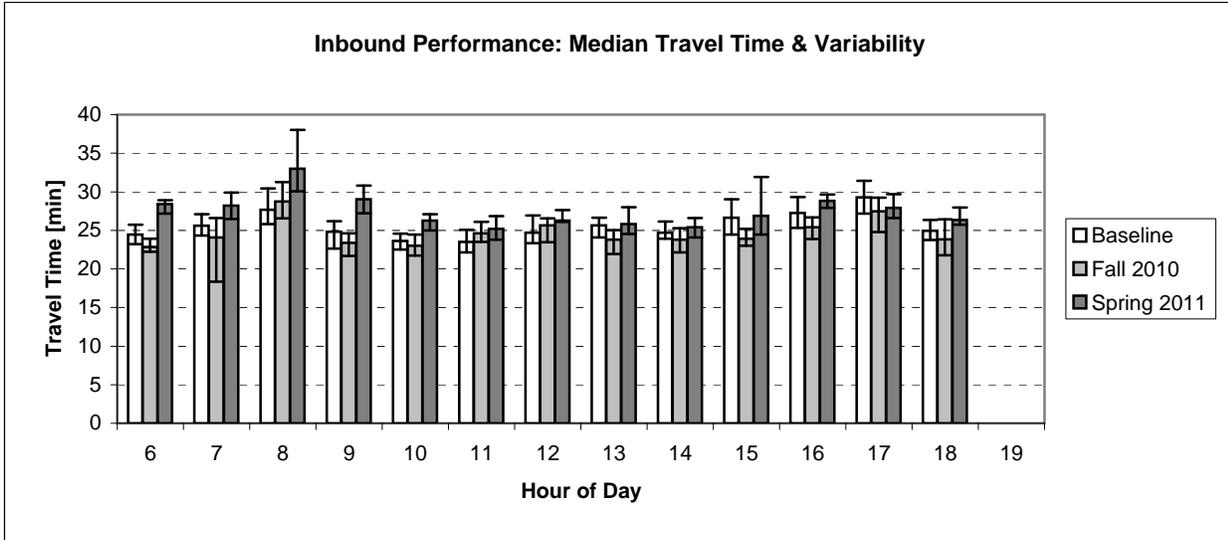
1st Ave S & East Marginal Way to 4th/2nd Ave & Jackson St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway J.1

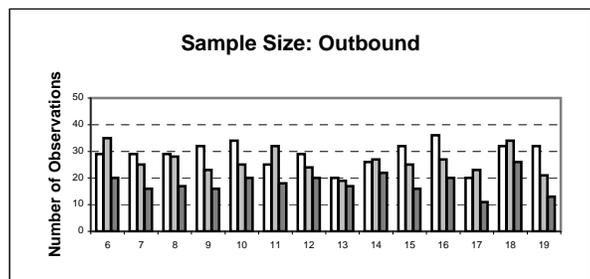
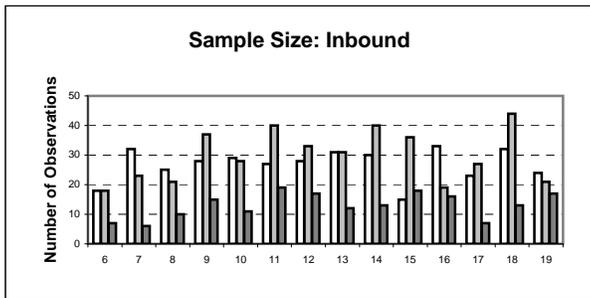
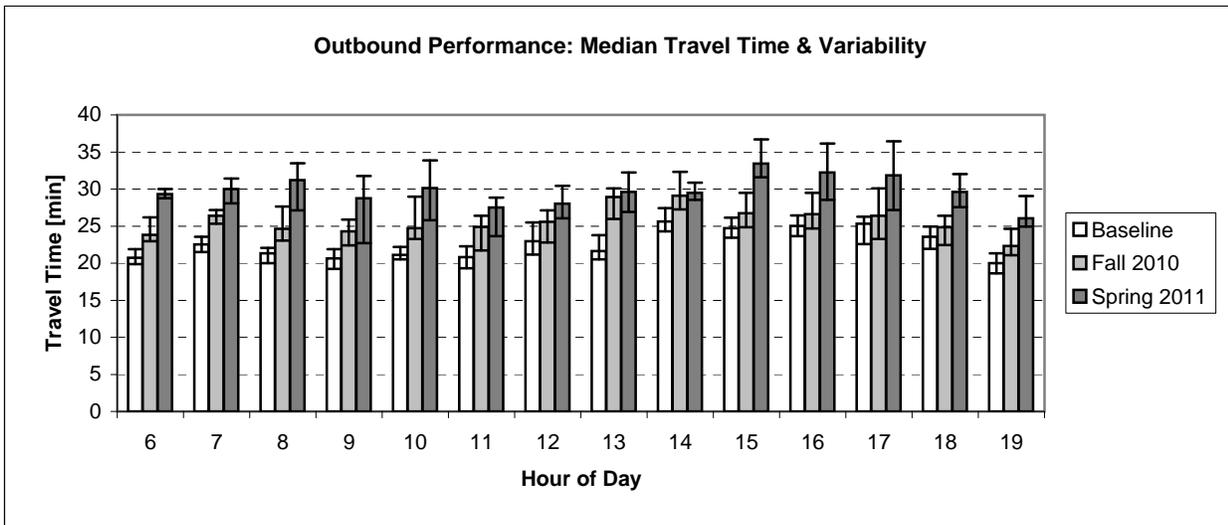
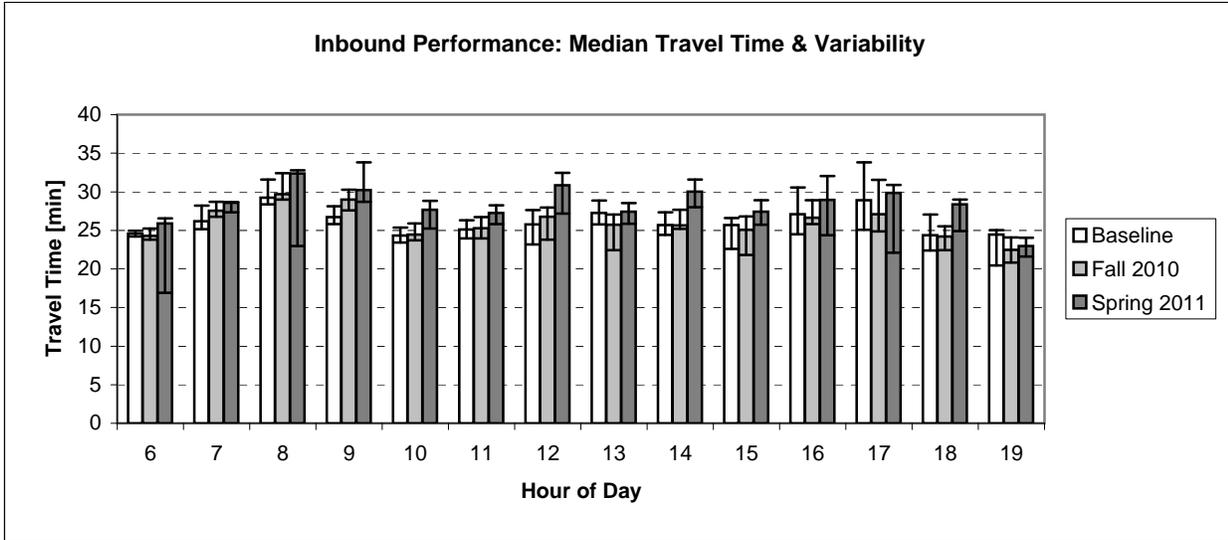
Alaska Junction to 3rd Ave & Seneca St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVI
Fall 2010	1/3/11 - 2/4/11	AVI-AVI
Spring 2011	5/23/11 - 6/10/11	AVI-AVI

Pathway J.2

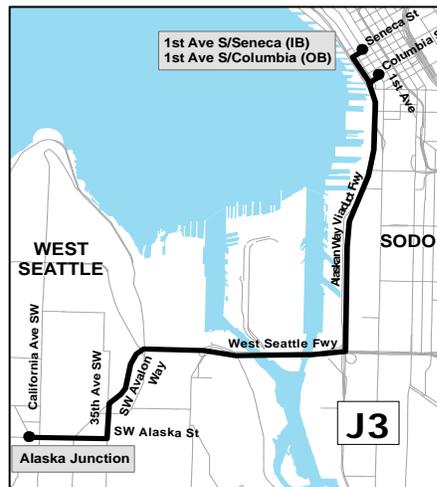
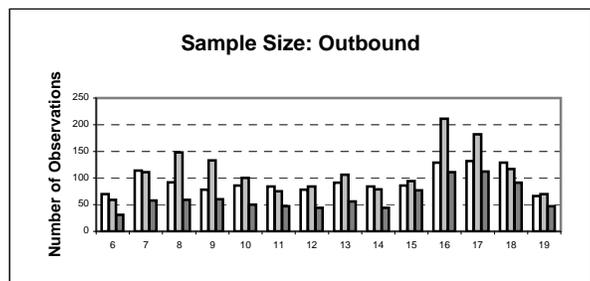
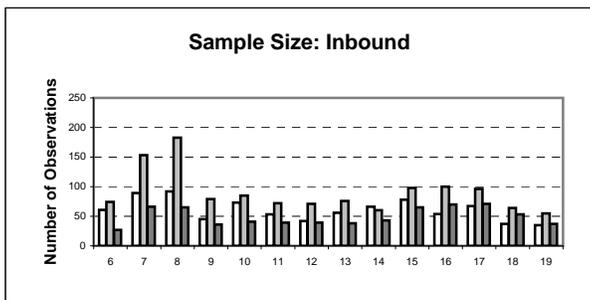
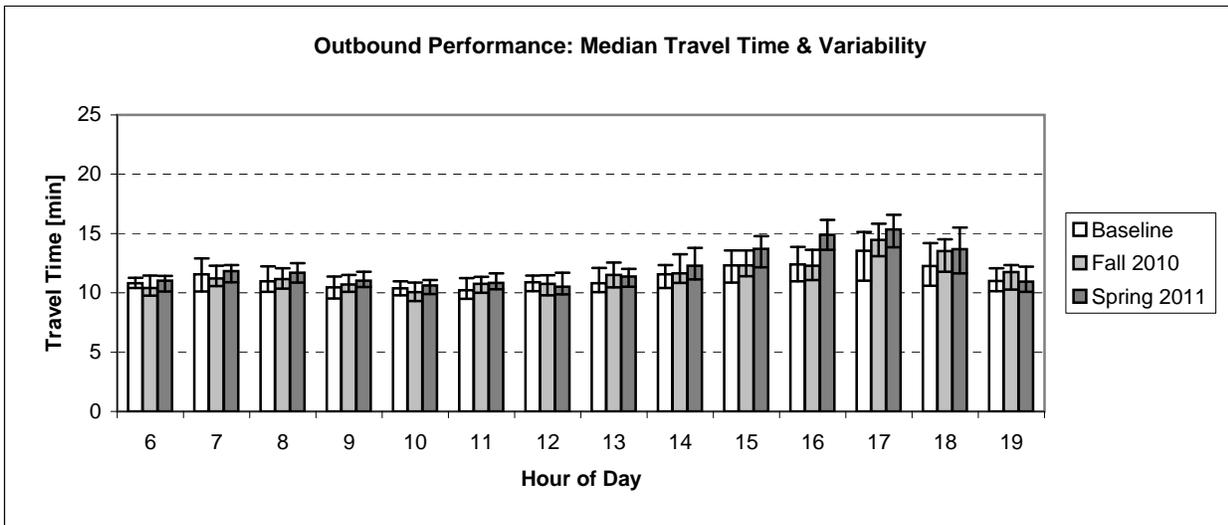
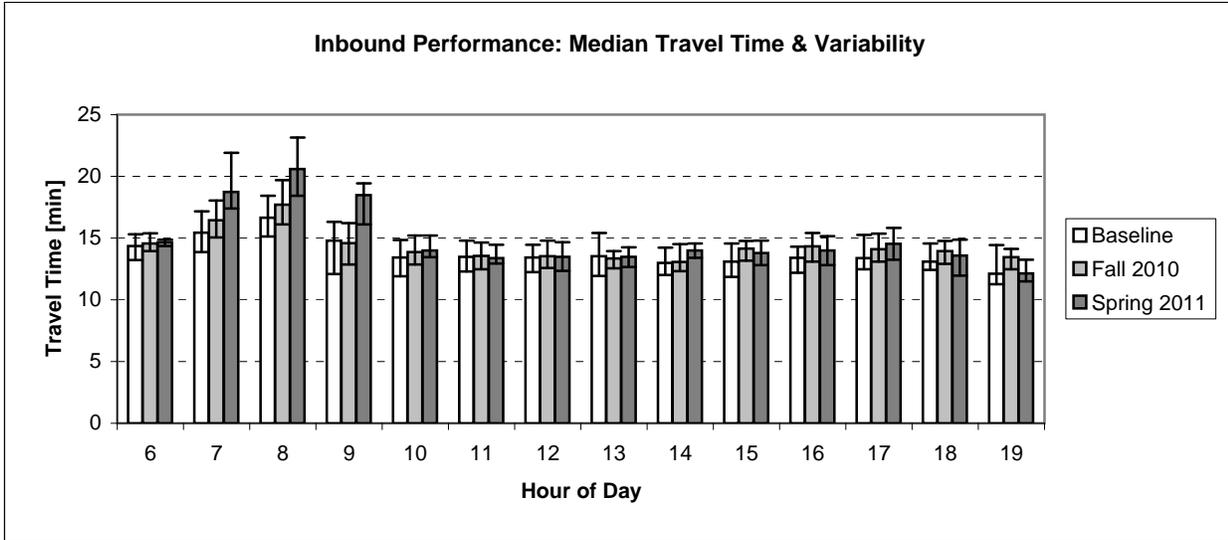
35th Ave SW & SW Morgan St to 3rd Ave & Seneca St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway J.3

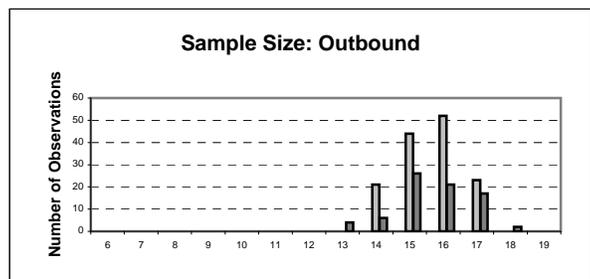
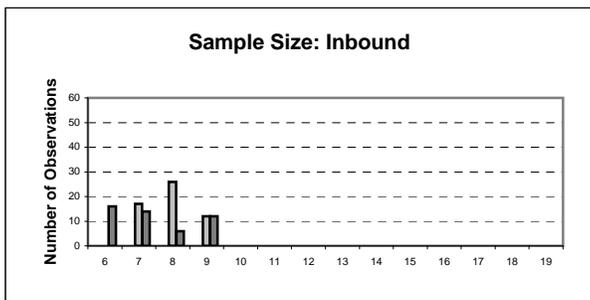
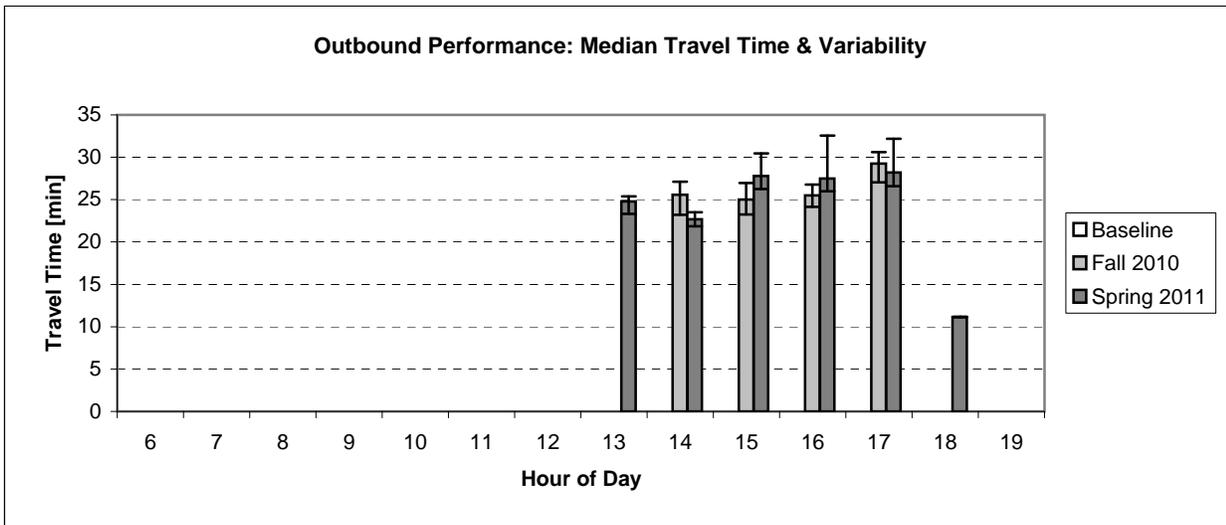
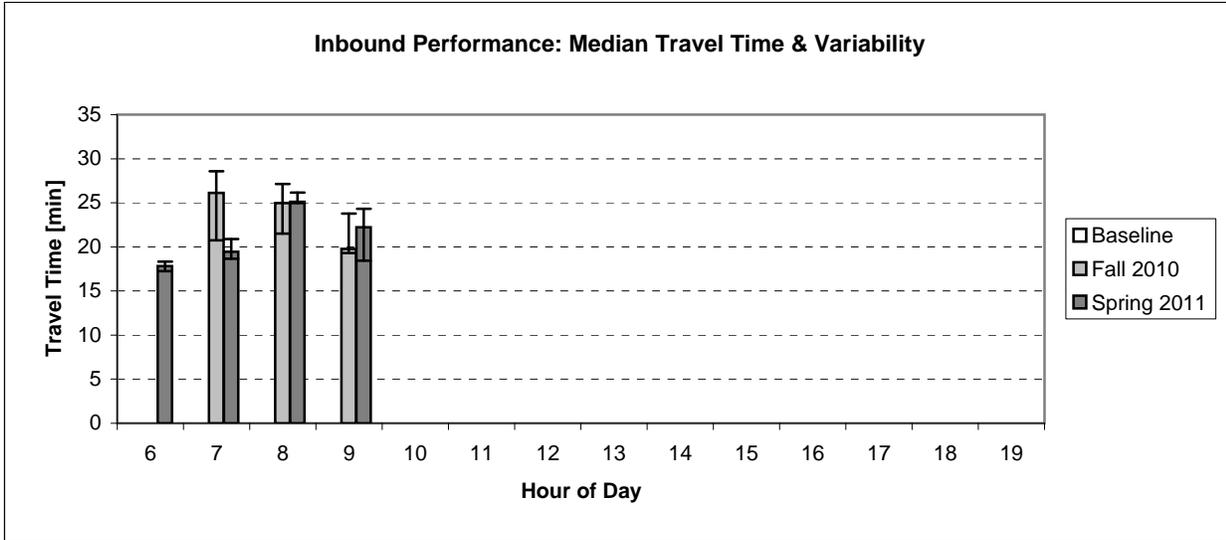
Alaska Junction to 1st Ave & Seneca/Columbia St via Alaskan Way Viaduct



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Pathway J.4

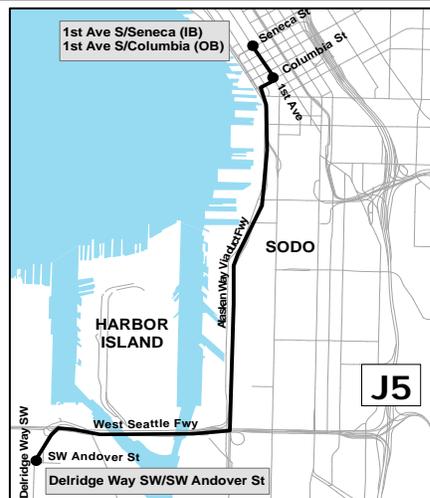
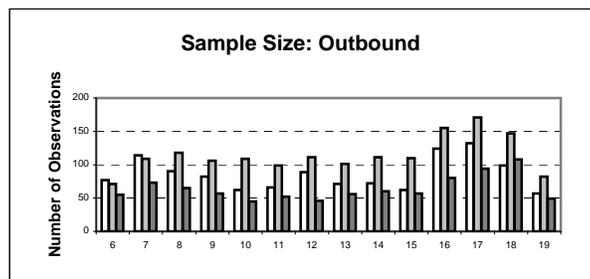
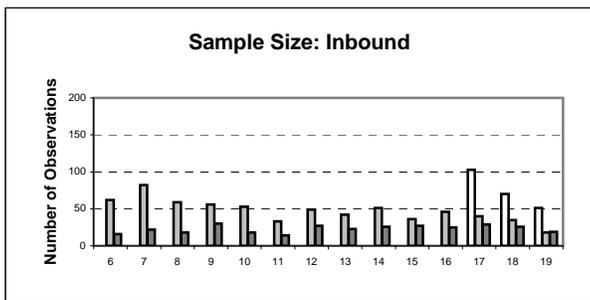
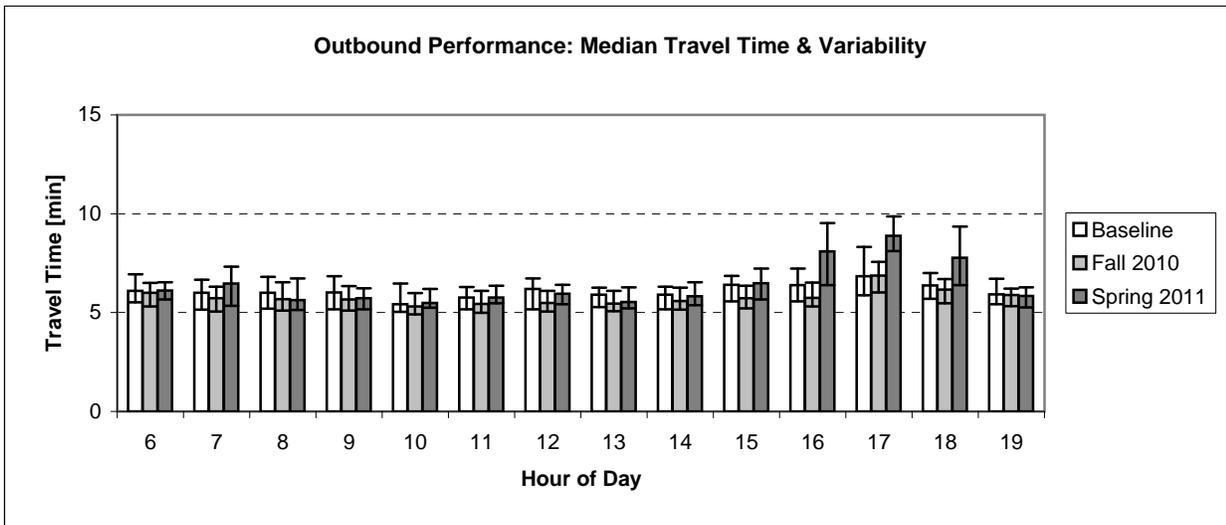
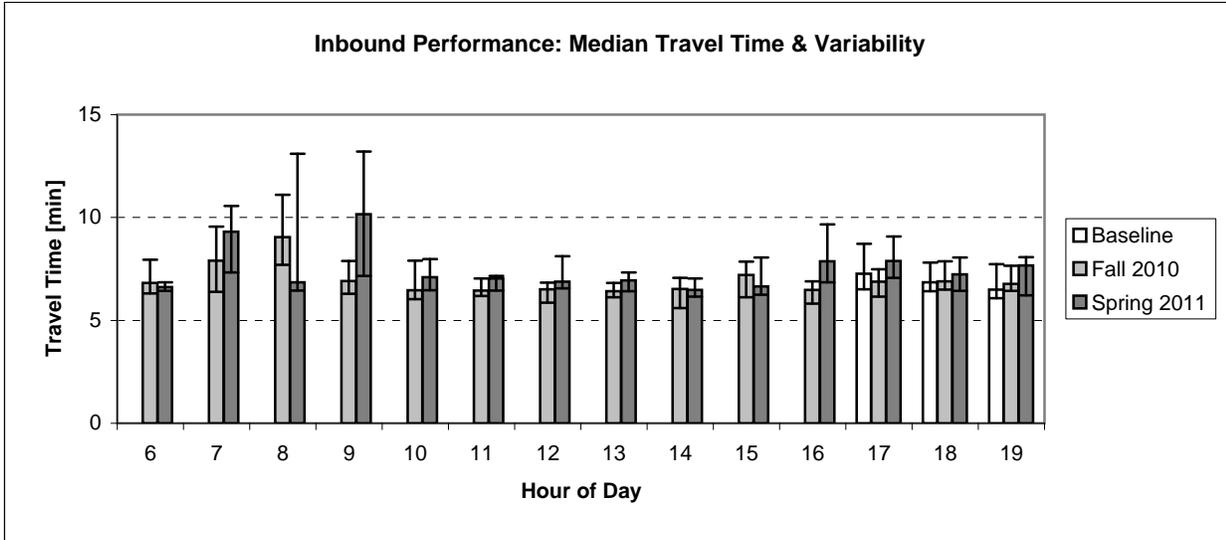
California Ave SW & SW Fauntleroy Way SW to 3rd Ave & Yesler St via 1st Ave S (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway J.5

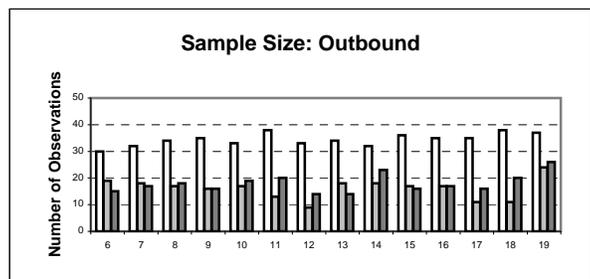
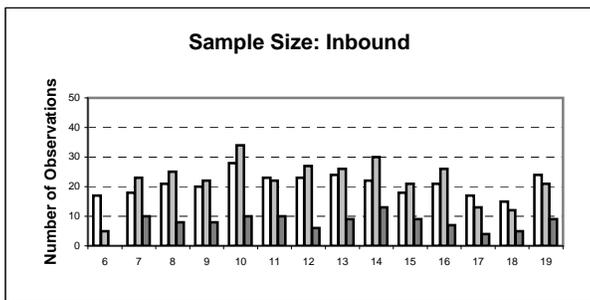
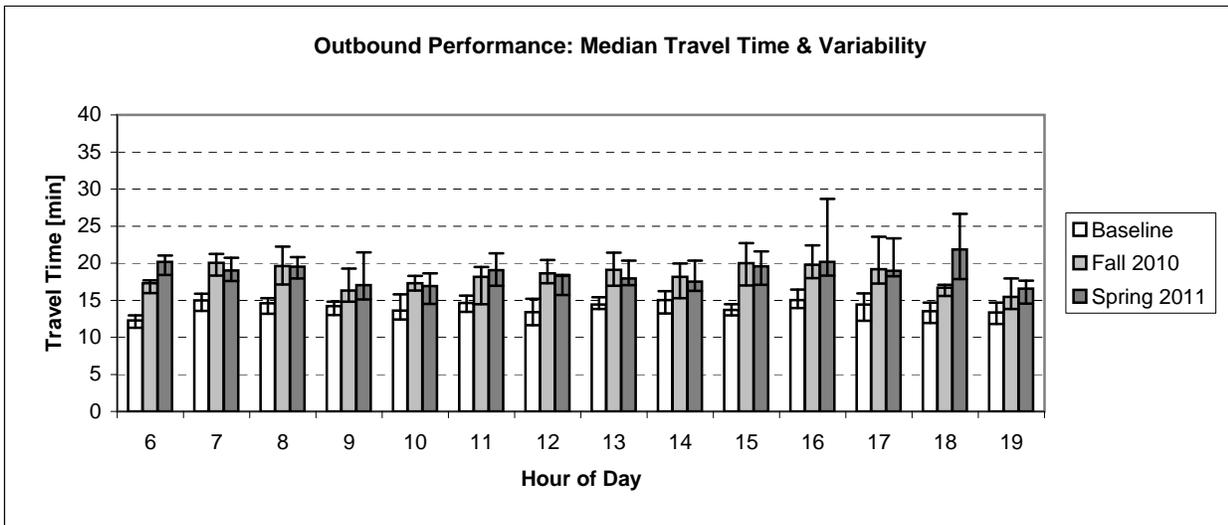
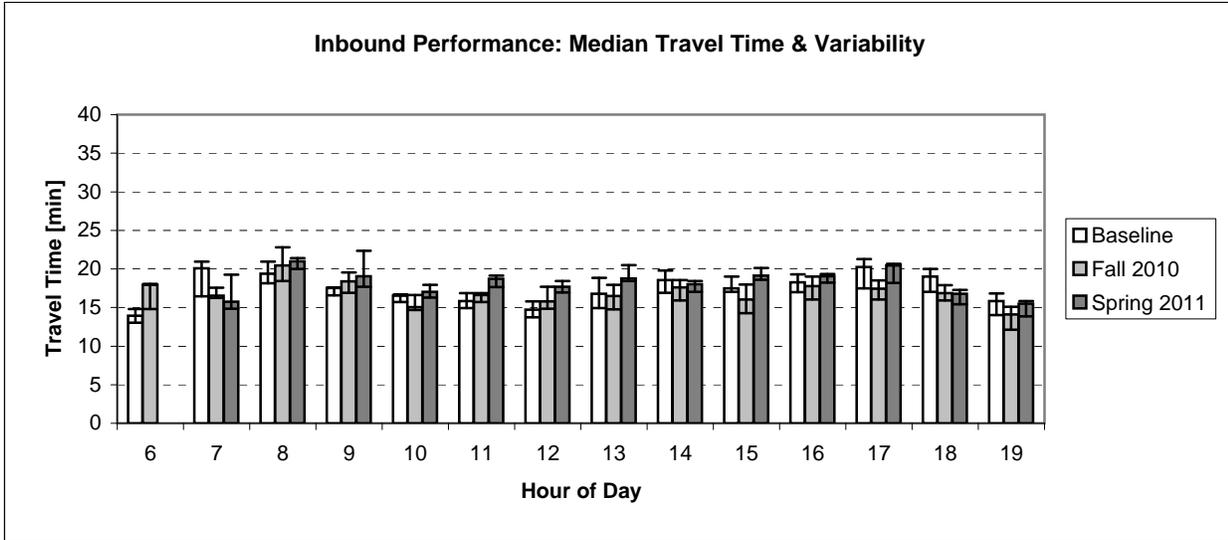
Delridge Way SW & SW Andover St to 1st Ave & Seneca/Columbia St via AWW



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Pathway J.6

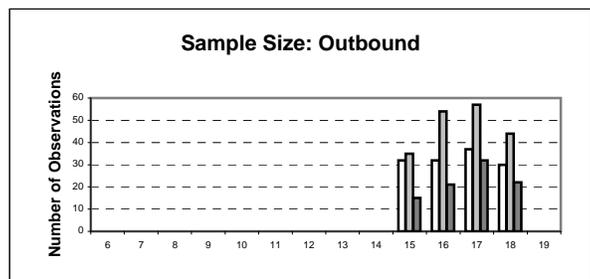
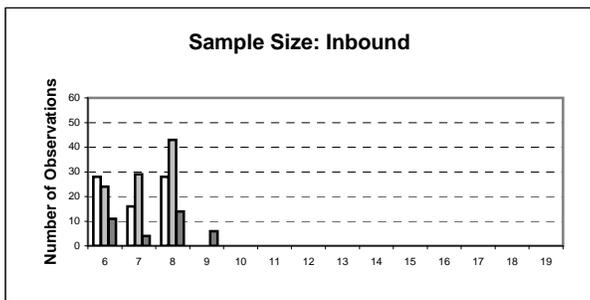
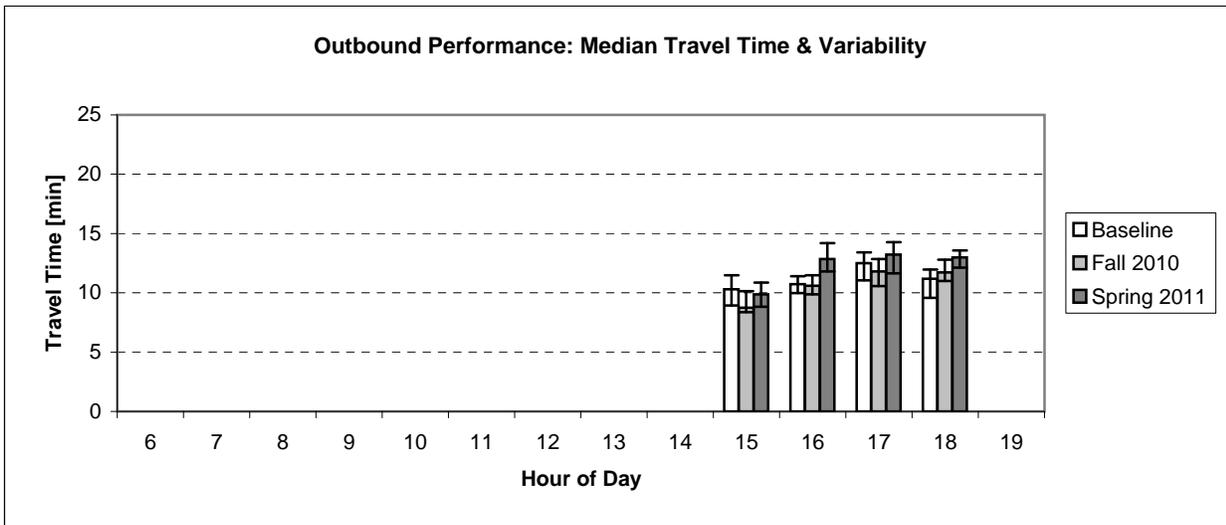
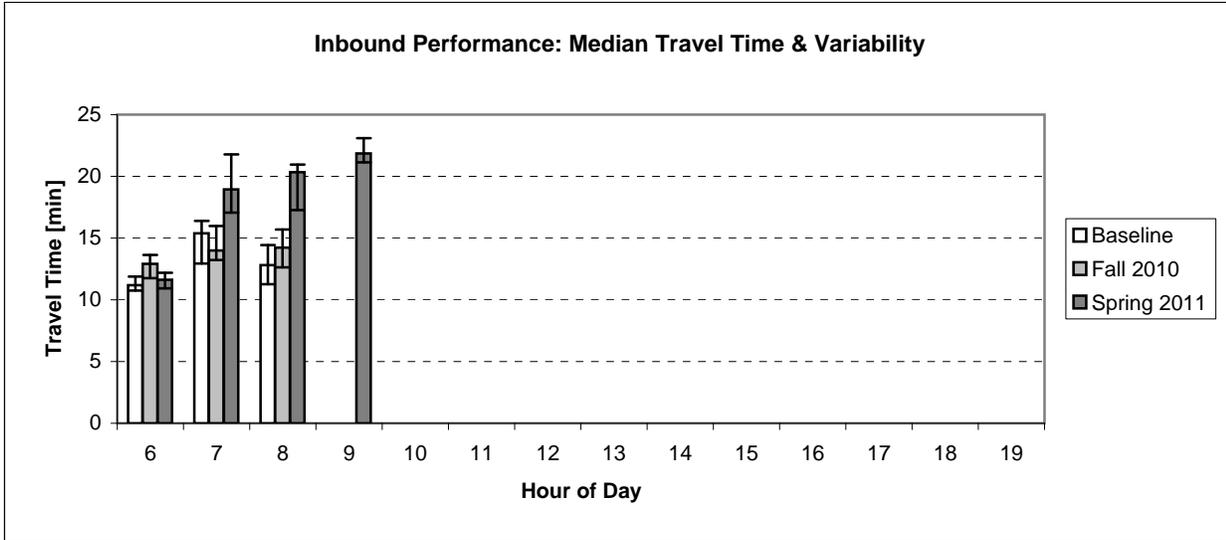
Admiral Way SW & California Ave SW to 2nd/4th Ave & S Jackson St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 2010	1/3/11 - 2/4/11	AVL-AVI
Spring 2011	5/23/11 - 6/10/11	AVL-AVI

Pathway J.7

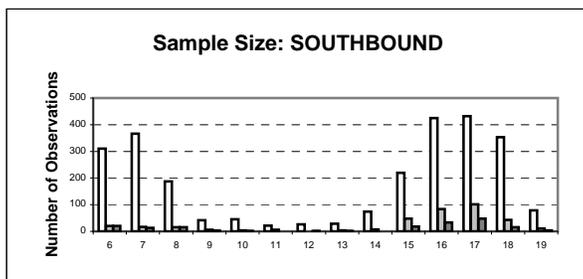
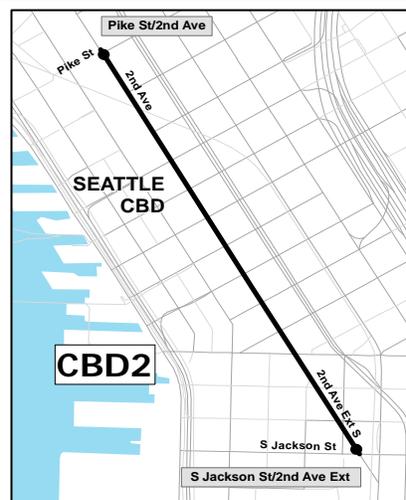
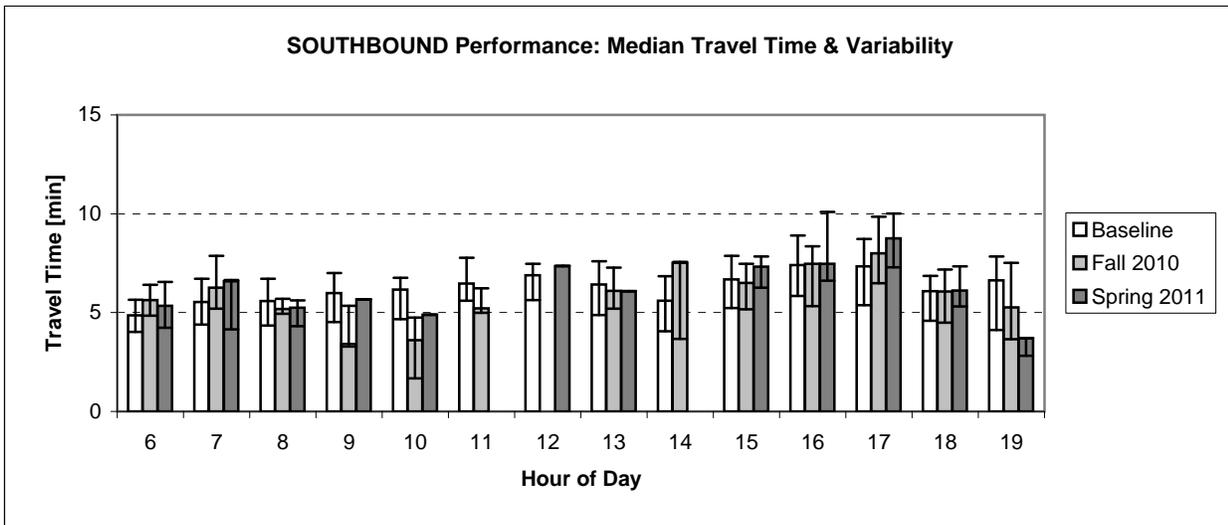
Admiral Way SW & California Ave SW to 1st Ave & Seneca/Columbia St via AWV (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVL
Fall 2010	1/3/11 - 2/4/11	AVI-AVL
Spring 2011	5/23/11 - 6/10/11	AVI-AVL

Pathway CBD2

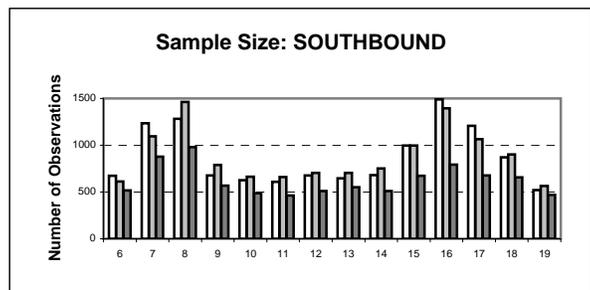
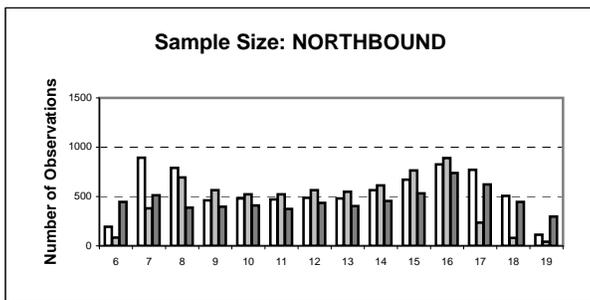
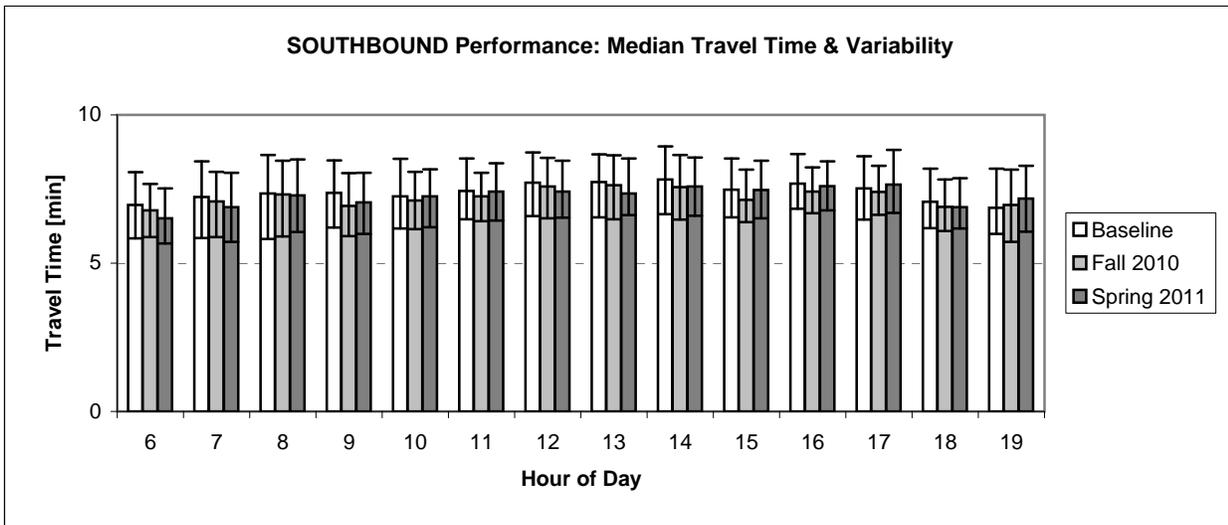
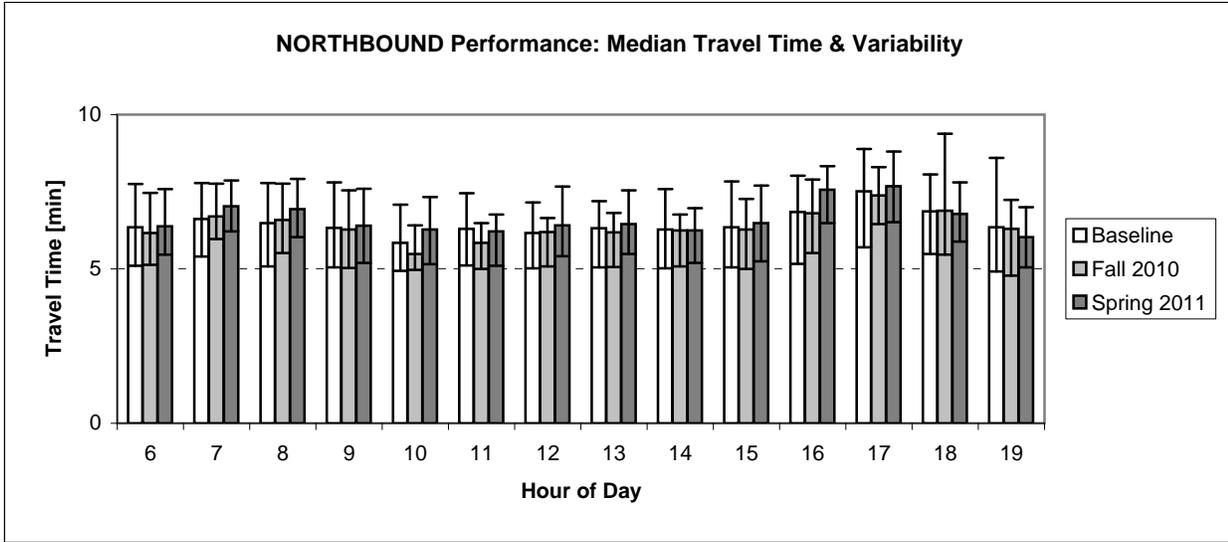
Second Avenue: Pike St to Jackson St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Pathway CBD3

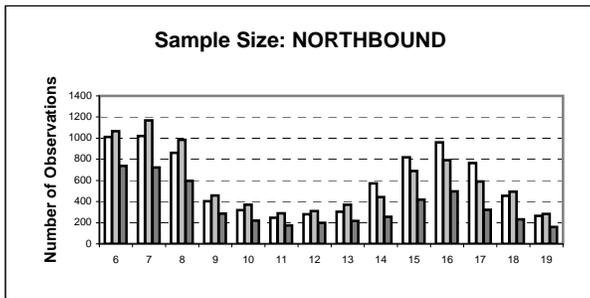
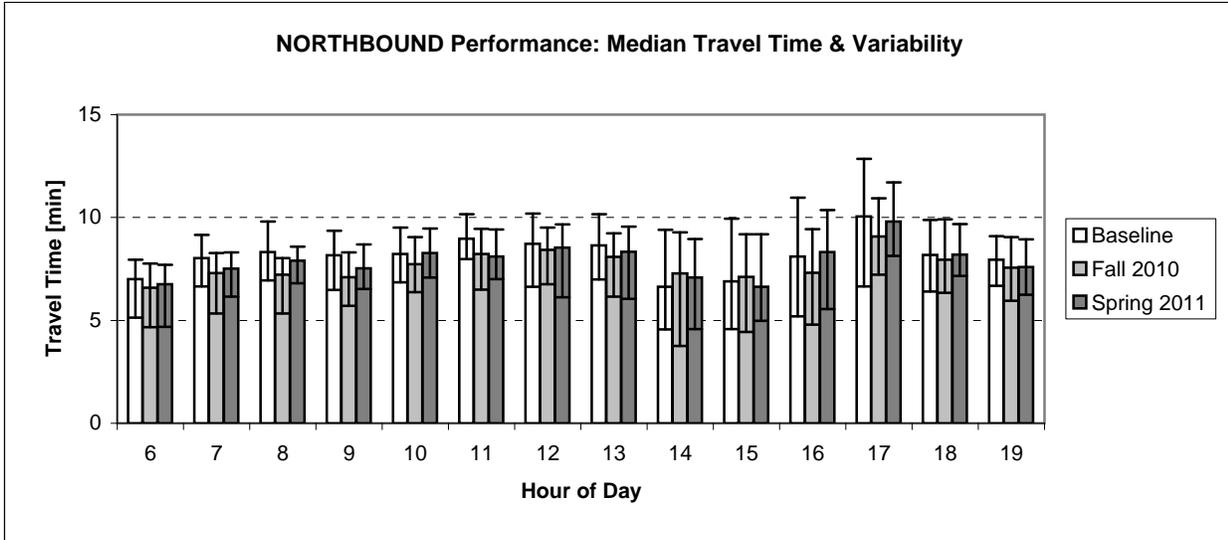
Third Ave: Stewart St to Yesler Way



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Pathway CBD4

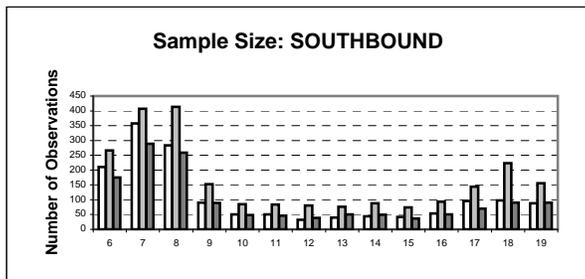
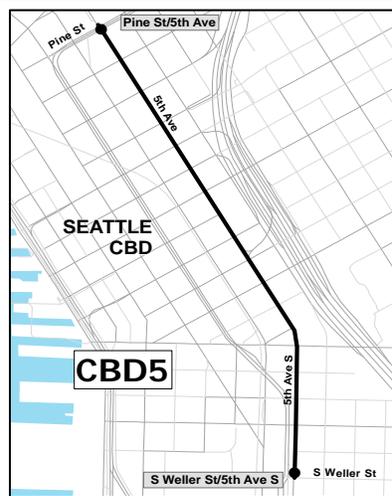
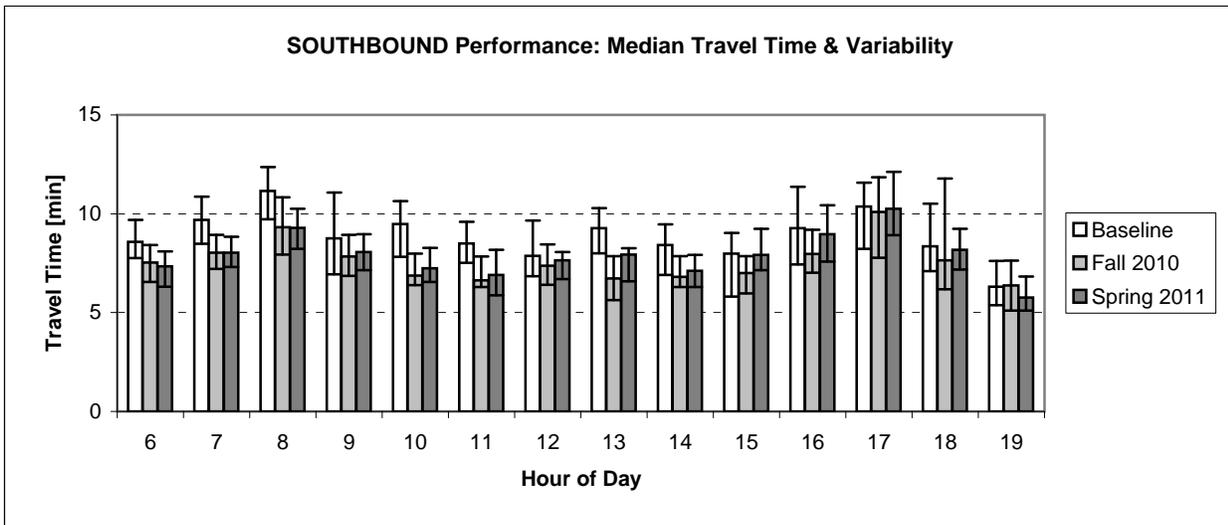
Fourth Ave: Jackson St to Stewart St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Pathway CBD5

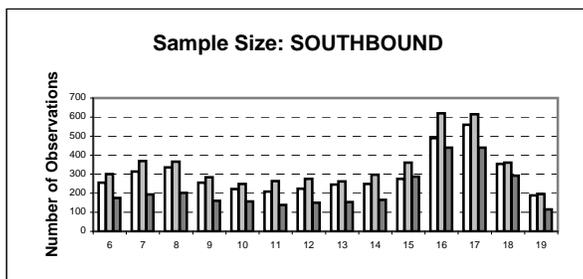
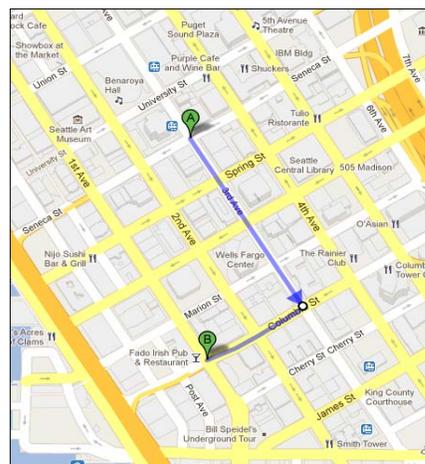
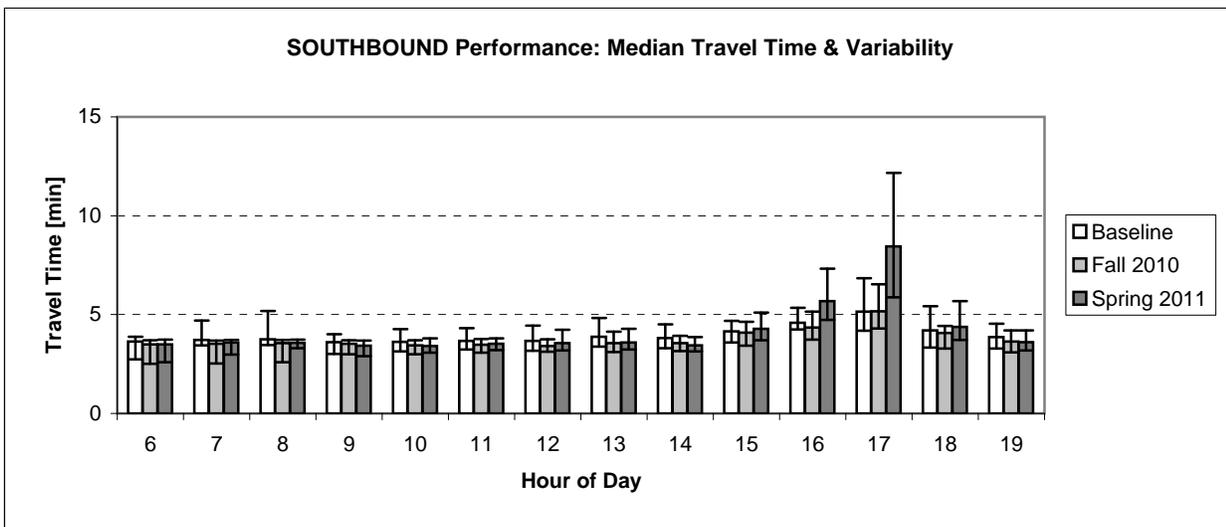
Fifth Ave: Pine St to Weller St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Pathway Columbia

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



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 2010	1/3/11 - 2/4/11	AVI
Spring 2011	5/23/11 - 6/10/11	AVI

Task: Incentives for Transit
Task Lead: Kathy Koss

The data in the shaded cells was provided by King County Metro.

Target	
240	Trips Reduced
2,500	Transit Pass Incentives

ORCA Passport	
Data provided by King County Metro	
Pre-Construction / Pre-Program Implementation	
Passports (within defined impact area)	42,000
Alternate Mode Share for (transit and vanpool) Passport Sites	44.0%
Alternate Mode Share for Non-Passport Sites	33.0%
During Program Implementation	
Passports Distributed	3,111
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%

WSDOT Analysis

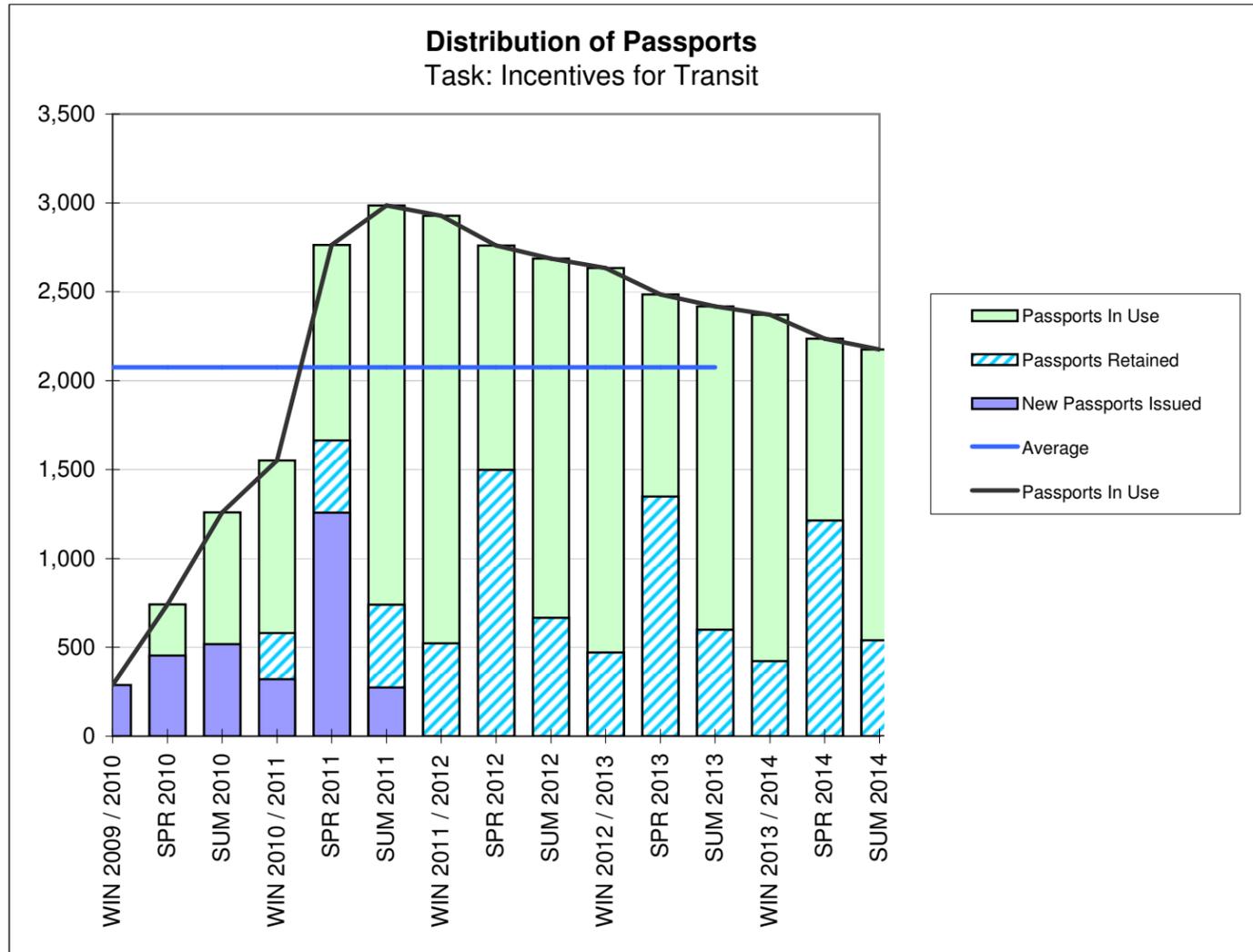
Daily Round Trips Reduced Through Expanded Use of Existing Passports

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

$$= ((44.0\%) - (44.0\%)) * (42,000) = 0$$

Average Daily Round Trips Reduced Through Distribution of New Passports

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

$$= ((44.0\%) - (33.0\%)) * (2,076) = 228$$


	Service Period	New Passports Issued	Passports Expiring	Passports Retained	Passports In Use	Average Passports In Use
Program Period	WIN 2009 / 2010	288			288	2,076
	SPR 2010	453			741	
	SUM 2010	518			1,259	
	WIN 2010 / 2011	321	288	259	1,551	
	SPR 2011	1,257	453	408	2,763	
	SUM 2011	274	518	466	2,985	
	WIN 2011 / 2012			580	2,927	
	SPR 2012			1,665	2,761	
	SUM 2012			740	2,687	
	WIN 2012 / 2013			522	2,634	
	SPR 2013			1,498	2,485	
	SUM 2013			666	2,418	
Post Program Period	WIN 2013 / 2014		470	423	2,371	2,276
	SPR 2014		1,348	1,214	2,236	
	SUM 2014		600	540	2,176	

Target Check	
Trips Reduced vs. Incentives (on track?)	NO
Trip Reduction Target Reached	NO
Transit Pass Incentives Target Reached	YES

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

The data in the shaded cells was provided by King County Metro.

Targets	
5	Incentives to Garages
200	Trips Reduced

Elasticity of Use for Monthly Passes		Parking Garage Use													Overall Program Performance
		Baseline	WIN 2009 / 2010	SPR 2010	SUM 2010	WIN 2010 / 2011	SPR 2011	SUM 2011	WIN 2011 / 2012	SPR 2012	SUM 2012	WIN 2012 / 2013	SPR 2013	SUM 2013	
Location		Date of Report													
Republic Parking NW, Inc 1615 Third Ave		Average Monthly Passes													
		Average Early Birds / All Day Passes													
Capacity	754	Average Peak Occupancy (%)													
Baseline # of Short Term Stalls		Long Term Use													
Incentive	No	Trips Reduced													
Location		Date of Report													
WAC (Washington Athletic Club) 1409 6th Ave		Average Monthly Passes													
		Average Early Birds / All Day Passes													
Capacity	314	Average Peak Occupancy (%)													
Baseline # of Short Term Stalls		Long Term Use													
Incentive	No	Trips Reduced													
Location		Date of Report													
WA State Convention and Trade Center 800 Convention Pl		Average Monthly Passes													
		Average Early Birds / All Day Passes													
Capacity	825	Average Peak Occupancy (%)													
Baseline # of Short Term Stalls		Long Term Use													
Incentive	No	Trips Reduced													
Location		Date of Report													
PSD Pacific Place LLC 600 Pine		Average Monthly Passes													
		Average Early Birds / All Day Passes													
Capacity	1,125	Average Peak Occupancy (%)													
Baseline # of Short Term Stalls		Long Term Use													
Incentive	No	Trips Reduced													
Location		Date of Report													
Pike Place Market Preservation and Development Authority		Average Monthly Passes													
		Average Early Birds / All Day Passes													
Capacity	517	Average Peak Occupancy (%)													
Baseline # of Short Term Stalls		Long Term Use													
Incentive	No	Trips Reduced													
Location		Date of Report													
Puget Sound Plaza/Cobb Garage (UNICO) 315 Union St		Average Monthly Passes													
		Average Early Birds / All Day Passes													
Capacity	470	Average Peak Occupancy (%)													
Baseline # of Short Term Stalls		Long Term Use													
Incentive	No	Trips Reduced													

Parking Garage Use																Overall Program Performance
		Baseline	WIN 2009 / 2010	SPR 2010	SUM 2010	WIN 2010 / 2011	SPR 2011	SUM 2011	WIN 2011 / 2012	SPR 2012	SUM 2012	WIN 2012 / 2013	SPR 2013	SUM 2013		
Location		Date of Report														
		Average Monthly Passes														
		Average Early Birds / All Day Passes														
Capacity		Average Peak Occupancy (%)														
Baseline # of Short Term Stalls		Long Term Use														
Incentive		Trips Reduced														
Location		Date of Report														
		Average Monthly Passes														
		Average Early Birds / All Day Passes														
Capacity		Average Peak Occupancy (%)														
Baseline # of Short Term Stalls		Long Term Use														
Incentive		Trips Reduced														
Location		Date of Report														
		Average Monthly Passes														
		Average Early Birds / All Day Passes														
Capacity		Average Peak Occupancy (%)														
Baseline # of Short Term Stalls		Long Term Use														
Incentive		Trips Reduced														
Location		Date of Report														
		Average Monthly Passes														
		Average Early Birds / All Day Passes														
Capacity		Average Peak Occupancy (%)														
Baseline # of Short Term Stalls		Long Term Use														
Incentive		Trips Reduced														
Location		Date of Report														
		Average Monthly Passes														
		Average Early Birds / All Day Passes														
Capacity		Average Peak Occupancy (%)														
Baseline # of Short Term Stalls		Long Term Use														
Incentive		Trips Reduced														
Total for All Garages		Incentives	0												Trips Reduced	0

Target Check	
Trip Reduction vs. Short Term Stalls (on track?)	
Garage Incentive Distribution Target Reached	NO
Trip Reduction Target Reached	

Task: Promotion of Enhanced Transit Service / Enhanced Transit Service
Task Lead: Bob Virkelyst / Kathy Koss

The data in the shaded cells was provided by King County Metro.

Target*	
1,100	Trips
75,000	Employees / Households
90,000	Households

Weekday Ridership, SPR 2008 through WIN 2013 Data provided by King County Metro Daily Riders (one-way trips)																		WSDOT Analysis		
Pathway	Pre-Revised Service						Revised Service											Average Daily Ridership (one-way trips)		
	SPR 2008	SUM 2008	WIN 2008	SPR 2009	SUM 2009	WIN 2009	SPR 2010	SUM 2010	WIN 2010	SPR 2011	SUM 2011	WIN 2011	SPR 2012	SUM 2012	WIN 2012	SPR 2013	SUM 2013	WIN 2013	Pre-Revised Service SPR 2008 through WIN 2009	Revised Service SPR 2010 through WIN 2013
Pathway A - Ballard / Magnolia	20,520	22,000	20,580	19,250	19,470	19,120	18,890	18,610	18,394	19,027									20,157	18,730
Pathway B - Aurora / Fremont	29,430	31,740	30,360	29,640	29,570	27,120	28,280	29,460	28,529	29,147									29,643	28,854
Pathway I - SODO / Georgetown	9,150	6,570	8,800	8,260	8,150	7,700	7,540	7,400	7,069	10,571									8,105	8,145
Pathway J - West Seattle	22,900	23,930	24,150	22,710	22,140	21,860	22,140	21,660	21,374	22,018									22,948	21,798

*Target is shared between the promotion of all forms of ridesharing. There is no way to measure the performance of the promotions for carpooling or vanpooling. The transit service promotion will be measured in the form of pathways rather than individual routes. These pathways include transit routes with added service and other transit routes in the area of promotion. The added transit service will be promoted but we can't distinguish between the effects of the promotion vs the addition of service so their performance is measured jointly. There is no established trip reduction target for the addition of transit service. The target is a combination for all promotions so all promoted transit pathways will be jointly measured against the target. We expect to exceed this target since the measurement of performance for added transit routes is included in the analysis but the target does not include expectations of the added transit services to measure against. The comparison of the performance against the target is not valid in this case. Target is also the total (1,100 trips) of the contract elements for downtown (520 trips) and south end (580 trips).

Total

Target* Check
Trips Reduced vs. Employees / Households Reached (on track?)
Trip Reduction Target Reached*
Downtown Employees / Households Target Reached
South End Households Target Reached

	During Promotion						Total
	SPR 2011	XXX 20XX					
Downtown Employees Reached	850						850
Downtown Households Reached							
South End Households Reached	75,000						75,000

Calc Sheet Version 2.1

Reduced*
Downtown
South End
s
Round Trips Reduced (Average Daily Ridership of Revised Service minus Pre-Revised Service) divided by 2
-713
-395
20
-575

ok
NO
NO
NO

Task: Carpool Program
Task Lead: Tom Devlin

Target	
270	Trips Reduced
1,000	Carpool Incentives

	Service Period	Reported Trips by Mode							Carpool Incentives Distributed	Commute Days in Service Period	# of Monthly Reports Provided by Participants	Anticipated Monthly Reports*
		Carpool	Bus	Bike/Walk	Vanpool / Vanshare	Train	Telework					
Program Period (Service Change, Year)	WIN 2009 / 2010											0
	SPR 2010											0
	SUM 2010											0
	WIN 2010 / 2011											0
	SPR 2011	45,595			131,127			1,216	88	5432		4864
	SUM 2011											4864
	WIN 2011 / 2012											4864
	SPR 2012											4864
	SUM 2012											0
	WIN 2012 / 2013											0
	SPR 2013											0
SUM 2013											0	
% of Reported Trips Resulting in Trip Reductions by Mode		50%	97%	100%	88%	98%	100%	Total	1216	88	5432	19456
Total Trip Reduction (see formula below)		7,349	0	0	37,197	0	0	44,546				
Trips Reduced Per Day (see formula below)		84	0	0	423	0	0	506				

Participants Newness to Alternate Mode	
Time	Percentage
0-6 months	36%
6-12 months	
1 year+	
Commute Days Per Year	250

Target Check	
Trips Reduced vs. Incentives (on track?)	YES
Trip Reduction Target Reached	YES
Carpool Incentives Target Reached	YES

$$= \left(\frac{\text{Anticipated \# of Monthly Reports}}{\text{Actual \# of Monthly Reports}} \right) * \left(\frac{\text{Reported Trips by Mode}}{\text{by Mode}} \right) * \left(\frac{\% \text{ of Reported Trips Resulting in Trip Reductions by Mode}}{\text{by Mode}} \right) * \left(\frac{\% \text{ of Participants}}{\text{0 - 6 Months}} \right)$$

$$\text{Trips Reduced Per Day} = \frac{\text{Total Trip Reduction}}{\text{Total Commute Days}}$$

*Assumes 1 year of participation by participants.

Task: Plan Your Commute
Task Lead: Kelly Lindsey

Target	
740	Trips Reduced
1,800	Pledges

The data highlighted in yellow was provided by King County Metro.

Weekday Trip Reduction Reporting

250	Commute days per year
115	Non-commute days per year

	Event Name	Date of Event	Contacts Made			Participants people / pledges	Total # of Logged Weekday Round Trips by Alternate Mode to date	Program Reporting Period to date		Average Daily Round Trips Reduced During Reporting Period ¹	Estimated Continued Participation	Post Program Reporting Period to date		Average Daily Round Trips Reduced After Reporting Period ²	Estimated Total Trip Reduction
			employers	employees	households			months	commute days			round trips	%		
Stand Alone Events	Gates Foundation Transit Fair	2/11/2011	1	70											

	Event Name	Date of Event	Contacts Made			Participants	Total # of Logged <u>Weekday</u> Round Trips by Alternate Mode to date	Program Reporting Period to date		Average Daily Round Trips Reduced During Reporting Period ¹	Estimated Continued Participation	Post Program Reporting Period to date		Average Daily Round Trips Reduced After Reporting Period ²	Estimated Total Trip Reduction
			employers	employees	households			people / pledges	months			commute days	months		
Paired Events	Full Event														
	Follow-up Event														
	Full Event														
	Follow-up Event														
	Full Event														
	Follow-up Event														
	Full Event														
	Follow-up Event														
	Full Event														
	Follow-up Event														
	Full Event														
	Follow-up Event														
	Full Event														
	Follow-up Event														

Total Pledges 0

Total

¹ (Total Logged Round Trips) / (Length of the Program Reporting Period)

² (Average Daily Round Trips Reduced During Reporting Period) * (Estimated Continued Participatic

Target Check	
Trip Reduction Target Reached	

Task: Residential Outreach
Task Lead: Carol Cooper

Target	
390	Trips Reduced
10%	Household Participation Rate

The data highlighted in yellow was provided by King County Metro.

Trip Reduction Reporting

250	Commute days per year
115	Non-commute days per year

	Program Name	Start Date	Contacts Made	Participants	Total # of Logged Round Trips by Alternate Mode to Date	Total # of Logged Vehicle Miles Traveled Reduced by Alternate Mode	% of Logged Trips for Commuting	Program Reporting Period to date		Average Daily Commute Round Trips Reduced During Reporting Period ¹	Estimated Continued Participation	Post Program Reporting Period to date		Average Daily Commute Round Trips Reduced After Reporting Period ²	Estimated Total Average Daily Commute Round Trip Reduction	
		xx/xx/xxxx	households	people	round trips	vehicle miles traveled	%	months	commute days	round trips	%	months	commute days	round trips	round trips	
Stand Alone Events	Georgetown In Motion	6/10/2011	6,600	125	881	11,183	48.0%	1	21	20					20	
	White Center In Motion	6/17/2011	4,500	224	525	6,582	21.0%	1	10	11					11	
	South Park In Motion	6/17/2011	3,000	84	314	4,782	33.0%	1	21	5					5	

	Program Name	Start Date	Contacts Made	Participants	Total # of Logged Round Trips by Alternate Mode to Date	Total # of Logged Vehicle Miles Traveled Reduced by Alternate Mode	% of Logged Trips for Commuting	Program Reporting Period to date		Average Daily Commute Round Trips Reduced During Reporting Period ¹	Estimated Continued Participation	Post Program Reporting Period to date		Average Daily Commute Round Trips Reduced After Reporting Period ²	Estimated Total Average Daily Commute Round Trip Reduction	
		xx/xx/xxxx	households	people	round trips	vehicle miles traveled	%	months	commute days	round trips	%	months	commute days	round trips	round trips	
Paired Events	Full Event															
	Follow-up Event															
	Full Event															
	Follow-up Event															
	Full Event															
	Follow-up Event															
	Full Event															
	Follow-up Event															
	Full Event															
	Follow-up Event															
	Full Event															
	Follow-up Event															
	Full Event															
	Follow-up Event															
	Participation Rate 3.1%														Total	36

¹ ((Total Logged Round Trips) * (% of Logged Trips for Commuting)) / (Length of the Program Reporting Period)

² (Average Daily Commute Round Trips Reduced During Reporting Period) * (Estimated Continued Participation)

Target Check	
Trip Reduction Target Reached	NO
Household Participation Rate Achieved	NO

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

Target	
100	Trips Reduced

ORCA Passport	
Data provided by King County Metro During Program Implementation	
Passports Distributed	27
Alternate Mode Share (transit and vanpool) for Passport Sites	
Alternate Mode Share for Non-Passport Sites	
Retention of Newly Distributed Passports	

The data in the shaded cells was provided by King County Metro.

WSDOT Analysis	
Average Daily Round Trips Reduced Through Distribution of New Passports	Total Daily Round Trips Reduced Through Distribution of New Passports, Vanpool and Vanshare
$= \left(\left(\begin{matrix} \text{Alt. Mode Share} \\ \text{for Passport Sites} \\ \text{During Program} \end{matrix} \right) - \left(\begin{matrix} \text{Alt. Mode Share} \\ \text{for non - Passport Sites} \\ \text{During Program} \end{matrix} \right) \right) * \left(\begin{matrix} \text{Average \# of Passports} \\ \text{In Use During Program} \end{matrix} \right)$	$= \left(\begin{matrix} \text{Passport Sales} \\ \text{Trips Reduced} \end{matrix} \right) + \left(\begin{matrix} \text{Vanpool Trips} \\ \text{Reduced} \end{matrix} \right) + \left(\begin{matrix} \text{Vanshare Trips} \\ \text{Reduced} \end{matrix} \right)$ <p style="text-align: right;">=()+(8)+()= 8</p>

	Quarter	Passports					Vanpools				Vanshares				
		New Passports Issued	Passports Expiring	Passports Retained	Passports In Use	Average Passports In Use	Formed (Participants)	Disbanded (Participants)	Current Participants	Average Vanpool Participants	Formed (Participants)	Disbanded (Participants)	Current Participants	Average Vanshare Participants	
Program Period	WIN 2009 / 2010				0	8			0	8			0		
	SPR 2010				0				0						0
	SUM 2010				0				0						0
	WIN 2010 / 2011		0	0	0		0	0	0		0	0	0		0
	SPR 2011	27	0	0	27		12	0	12		12	0	0		0
	SUM 2011		0	0	27				12		12				0
	WIN 2011 / 2012		0	0	27				12		12				0
	SPR 2012		27	0	0				12		12				0
	SUM 2012		0	0	0				12		12				0
	WIN 2012 / 2013		0	0	0				12		12				0
Post Program Period	SPR 2013		0	0	0			12	12			0			
	SUM 2013		0	0	0			12	12			0			
	WIN 2013 / 2014		0	0	0			12	12	12		0			
	SPR 2014		0	0	0			12	12	12		0			
	SUM 2014		0	0	0			12	12	12		0			

Target Check	
Trip Reduction Target Reached	NO

