

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

**Enhanced Transit, Transit Travel Time and Demand Management
Performance Report**

Prepared for:
WSDOT

Prepared by:
King County Department of Transportation
Metro Service Development Section

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Projects Overview

SUMMARY

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

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

This report is broken down into three sections:

- **Enhanced Transit Services:** This section compares the Spring 2014 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 2014 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 2014 TO JUNE 2014

Enhanced Transit Service summary

- During this period, ETS trip adds were maintained on Routes 18X, 21X, 56X, 120, 121 and RapidRide E Line (formerly Route 358). No new trips were added during this period.
- Peak-period service on the West Seattle Water Taxi and Water Taxi Shuttles was maintained through the Winter sailing season, which ended on April 4, 2014
- No new schedule adjustments were implemented during this period
- No flexible hours were used during this period

Ridership summary

- Peak period ridership increased in each of the four ETS pathways, and overall increased by 43% relative to the Spring 2009 baseline.
- Leading the growth in ridership at the corridor level was Pathway J (West Seattle), where WSDOT funded ETS trips on Routes 21X, 56X and 120 during the Spring 2014 service change.
- Among routes that received ETS improvements, RapidRide E Line (formerly Route 358) had the greatest increase in ridership in absolute terms, attracting over 2,200 additional rides during the peak and shoulder periods

Travel Time Summary

- The WSDOT North Access and SDOT Mercer Project continue to impact pathways on Aurora Ave N, with new impacts occurring on the Dexter Ave N pathway (Pathway B.3). Although the RapidRide E Line Pathway (Pathway B.1) has shown overall improvement, this and other pathways on Aurora Ave are experiencing additional delays of about 2 minutes during the PM peak due to construction in the South Lake Union area.
- Travel times on pathways using the Alaskan Way Viaduct and surface streets in SODO continue to be impacted by the Wosca Detour, especially in the inbound direction during the AM peak. AM inbound travel times on SR-99 have increased by about 3 – 5 minutes compared to baseline conditions, about the same as Fall 2013 condition. PM travel times have generally improved by one minute or less compared to Fall 2013.
- Additional lane closures in the Uptown area due to the Mercer West project, as well as traffic diversion from South Lake Union, have **slowed transit pathways to Ballard and Magnolia areas ("A" Pathway group)**
- Completion of the SR-99 Spokane St Overcrossing Project (timber bridge replacement) south of the West Seattle Bridge has improved one pathway in South Seattle during peak hours (Pathway I.1).

Transportation Demand Management Summary

Five TDM Tasks have met their contract targets:

- Promotions of Transit and Ridesharing has reduced 19,064 trips, exceeding the reduction target of 1,380 trips.
- Incentives for Transit and Ridesharing has reduced 402 trips, exceeding the reduction target of 236 trips.
- Employer Outreach has reduced 1,242 trips, exceeding the reduction target of 100 trips.
- Carpool Program has reduced 701 trips, exceeding the reduction target of 370 trips.
- Residential Outreach has reduced 451 trips during peak hours, exceeding the reduction target of 390 trips.

EXPENDITURES: SEPTEMBER 2009 – 2ND QUARTER 2014

As of the end of June 2014, Metro has invoiced WSDOT \$30,843,360 (\$544,456 under GCA 5864, \$28,617,421 under GCA 5820 and \$1,681,483 under GCA 5865) of the state's \$31.9 million investment in enhanced transit and demand management services.

*Combined Enhanced Transit Service, Bus Monitoring, and Transportation Demand Management Performance Report Volume 14
Provided King County Metro – Service Development*

PERFORMANCE REPORT SCHEDULE

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

Performance Report Release Dates

															CURRENT REPORT
Performance Measure Updates Submittal Date	Draft 12-14-09	Volume 1 4-05-10	Volume 2 8-09-10	Volume 3 12-13-10	Volume 4 4-04-11	Volume 5 8-22-11	Volume 6 12-12-11	Volume 7 4-16-12	Volume 8 08-20-12	Volume 9 12-10-12	Volume 10 4-22-13	Volume 11 8-19-13	Volume 12 12-9-13	Volume 13 3-31-14	Volume 14 7-9-15
Reporting Period of Volume Data															
Ridership/ Capacity/ Utilization Baseline		Feb 09 Jun 09 Sep 09													
Travel Time Baseline		Sep 2009*													
Service Plan		As of April 2010	As of Aug 2010	As of Dec 2010	As of April 2011	As of Aug 2011	As of Dec 2011	As of April 2012	As of Aug 2012	As of Dec 2012	As of April 2013	As of Aug 2013	As of Dec 2013	As of April 2014	As of Aug 2014
Travel Time Monitoring, Ridership/ Capacity/ Utilization Data, TDM Measures			Feb 10- Jun 10	Jun 10- Sept 10	Sep 10- Feb 11	Feb 11- Jun 11	Jun 11- Sep 11	Oct 11- Feb 12	Feb 12- Jun 12	Jun 12- Sep 12	Sep 12- Feb 13	Feb 13- Jun 13	Jun 13- Sep 13	Sep 13- Feb 14	Feb 14- Jun 14

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

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Enhanced Transit Service Report

INTRODUCTION

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

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

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

ENHANCED TRANSIT SERVICE REPORT PURPOSE

The Enhanced Transit Service Report provides various data that are useful in understanding the impact of the 30 additional trips funded by WSDOT. The trips funded by WSDOT as part of the February service change were scheduled on routes 21 Express (X), 56X, 120 (part of Pathway J), 121 (part of Pathway I), 18X (part of pathway A) and RapidRide E Line (formerly Route 358, part of pathway B). This report compares Spring 2009 baseline performance measures with Spring of 2014 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, 2012, 2013 and 2014 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 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, page 24. 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 15X, 17EX, 18EX, 19, 24, 32, 33 and RapidRide D Line.

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, 26, 26X, 28, 28X, 40, 62 and RapidRide E Line.

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

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, 50, 55, 56X, 57, 116, 118X, 119X, 120, 125 and RapidRide C Line.

RIDERSHIP TRENDS

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

Three-Year Ridership Trends – System-wide ridership grew each year between 2012 and 2014 and increased by 4% over the three-year period. Higher fuel prices, a somewhat stabilized economy and a major restructuring of service are likely contributing factors to this ridership growth.

The Enhanced Transit Service Table 1 below shows that ridership growth rates were considerably in excess of the system growth rate in all four Enhanced Transit Service (ETS) pathways. Ridership increased in each corridor in each of the past three years.

Enhanced Transit Service Table 1

3 YEAR TRANSIT CORRIDOR WEEKDAY RIDERSHIP TREND FOR SPRING SERVICE CHANGE				
Ridership Group	2012	2013	2014	% Change 2012-2014
System-wide Ridership	384,000	395,000	401,000	4%
Total of Pathways	93,760	113,390	118,500	26%
Pathway A – Ballard/Magnolia	17,590	22,370	24,380	39%
Pathway B – Aurora Fremont	35,100	44,060	45,420	29%
Pathway I – SODO/Georgetown	13,090	14,380	14,400	10%
Pathway J – West Seattle	27,970	32,580	34,300	23%

RIDERSHIP CHANGE IN SPRING 2014 COMPARED TO 2009 BASELINE

The Enhanced Transit Service Table 2 below compares the Spring 2014 system-wide and Enhanced Transit Service pathway ridership with the Spring 2009 baseline for average weekday ridership by time of day.

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

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

Enhanced Transit Service Table 2

COMPARISON OF SPRING 2009 BASELINE WEEKDAY RIDERSHIP BY TIME OF DAY AND PATHWAY WITH SPRING 2014 SERVICE CHANGE RIDERSHIP								
Ridership Group	Avg. Weekday		Peak Period*		Shoulder Periods		Midday Period	
	2009	2014 (% Change)	2009	2014 (% Change)	2009	2014 (% Change)	2009	2014 (% Change)
System-wide Ridership	375,000	401,000 (7%)	184,000	196,000 (7%)	68,000	72,000 (6%)	79,000	80,000 (1%)
Total of Pathways†	80,090	114,240 [118,500] (43%)	39,930	57,470 [59,410] (44%)	14,260	19,610 [20,320] (38%)	15,580	21,260 [22,100] (36%)
Pathway A – Ballard/Magnolia	16,920	24,380 (44%)	8,930	13,050 (46%)	2,950	4,010 (36%)	3,080	4,010 (30%)
Pathway B – Aurora Fremont	31,970	45,420 (42%)	14,880	21,280 (43%)	5,860	8,330 (42%)	6,690	9,220 (38%)
Pathway I – SODO/Georgetown†	8,260	10,140 [14,400] (23%)	4,440	5,540 [7,480] (25%)	1,370	1,650 [2,360] (20%)	1,400	1,670 [2,510] (19%)
Pathway J – West Seattle†	22,940	34,300 (50%)	11,680	17,600 (51%)	4,080	5,620 (38%)	4,410	6,360 (44%)

*Peak Period is 6-9 am and 3-6 pm; Shoulder Period is 9-10 am, 2-3 pm, and 6-7 pm; Midday is 10 am - 2 pm.
†The increase in ridership reported in the brackets is due to the addition of route 124 to Pathway I. Route 124 began operating in Pathway I in September 2009.

PERFORMANCE OF ENHANCED TRANSIT SERVICE ADDITIONS

Ridership increased during the peak period on all six routes that received Enhanced Transit Service (ETS) funding during the Spring 2013 service change. With the exception of Route 121, ridership also increased during the shoulder periods on routes that received ETS funding. The largest absolute change in peak and shoulder period ridership occurred on RapidRide E Line relative to Route 358, which it replaced. Peak direction frequencies (southbound in the AM; northbound in the PM) were upgraded from every 15 minutes to every 7-10 minutes on Route 358 in Fall 2011. Frequencies in the reverse peak direction (northbound in the AM; southbound in the PM) were improved when the route was converted to the E Line in Spring 2014.

In total, ridership performance of ETS routes outperformed the system-wide trend by 24 percentage points.

Enhanced Transit Service Table 3

COMPARISON OF RIDERSHIP PERFORMANCE OF SERVICES THAT RECEIVED WSDOT FUNDED ENHANCEMENTS WITH SPRING 2009 BASELINE								
Route/Pathway	Avg. Weekday		Peak Period*		Shoulder Periods		Midday Period	
	2009	2014 (% Change)	2009	2014 (% Change)	2009	2014 (% Change)	2009	2014 (% Change)
18X / Pathway A	760	910 (20%)	760	790 (4%)	No Service	120 (N/A)	No Service	No Service
21X / Pathway J	770	1,000 (30%)	740	910 (23%)	30	90 (200%)	No Service	No Service
56X / Pathway J	590	680 (15%)	510	550 (8%)	70	110 (57%)	No Service	No Service
120 / Pathway J	6,850	9,040 (32%)	2,900	3,960 (37%)	1,370	1,650 (20%)	1,600	1,970 (23%)
121 / Pathway I	1,090	950 (-13%)	730	770 (5%)	210	130 (-38%)	90	No Service
RapidRide E Line / Pathway B	9,900	13,660 (38%)	4,260	5,840 (37%)	1,880	2,530 (35%)	2,240	2,940 (31%)
Enhanced Transit Service Route Total	19,960	26,240 (31%)	9,910	12,820 (29%)	3,560	4,630 (30%)	3,920	4,910 (25%)

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

TRANSIT CAPACITY

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

Spring 2014 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 2014 for the four different pathways compared to the baseline. The pathway trends shown Table 4 are provided for context to help evaluate the effectiveness of WSDOT investments.

Overall, peak period capacity increased between 2009 and 2014. The Spring 2014 service change continued the additional transit capacity added on Route 18X (Pathway A route), RapidRide E Line (formerly Route 358; Pathway B route), Route 121 (Pathway I route) and Routes 21X, 56X, and 120 (Pathway J routes). However, other significant changes were implemented in all four pathways as part of the Fall 2012 service restructure. In addition, Route 358 was converted to the RapidRide E Line in Spring 2014. These changes affected both the number of trips and the number of seats per trip, the two factors that together determine seating capacity in each corridor. Consequently, capacity increases on individual WSDOT-funded routes may not directly correlate to changes in the pathways containing those routes.

Enhanced Transit Service Table 4

SPRING 2014 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	2014 (% Change)	2009	2014 (% Change)	2009	2014 (% Change)
Pathway A – Ballard/Magnolia	9,160	10,400 (14%)	2,940	3,580 (22%)	3,600	3,950 (10%)
Pathway B – Aurora Fremont	15,530	16,770 (8%)	5,810	6,670 (15%)	7,640	8,190 (7%)
Pathway I – SODO/Georgetown*	6,190	6,250 [8,340] 1%	1,890	2,110 [2,960] 12%	1,940	2,000 [2,970] 3%
Pathway J – West Seattle	15,920	16,270 (2%)	5,610	5,520 (-2%)	7,220	6,360 (-12%)
Total of all Pathways	46,800	49,690 [51,780] (6%)	16,250	17,880 [18,730] (10%)	20,400	20,500 [21,470] (0%)

*The increase in seats reported in the brackets is due to the addition of route 124 to the pathway. Route 124 began operating in pathway "I" in September 2009.

Enhanced Transit Service Table 5 compares the actual transit capacity delivered during the Spring 2014 service change to the Spring 2014 enhanced transit service proposal. The number of seats specified in the ETS proposal assumed an average seating capacity of 58 on each ETS route, whereas the number of seats provided is based on the specific coach types assigned during the service change. Because RapidRide coaches have fewer seats

than other low-floor articulated coaches, the actual number of seats provided on RapidRide E Line was slightly lower than proposed.

During the Spring 2013 service change WSDOT funds provided 17 percent more peak period transit capacity on routes 18X, 21X, 56X, 120, 121 and RapidRide E Line. As will be shown in the next section, this additional capacity helped to mitigate the impact on transit capacity level of service caused by a 24 percent increase in peak period ridership relative to the Spring 2009 baseline.

Enhanced Transit Service Table 5

COMPARISON OF WSDOT FUNDED TRANSIT CAPACITY WITH METRO FUNDED PEAK PERIOD TRANSIT CAPACITY				
Spring 2014				
Route/Pathway	Metro Funded Peak Period*	Actual WSDOT Funded*	Spring 2014 ETS Proposal†	% Increase in Seating Capacity Compared to Metro Peak Period
18X	580	120	120	21%
21X	670	340	350	51%
56X	460	210	230	46%
120	3,140	460	460	15%
121	1,230	230	230	19%
RapidRide E Line	3,500	290	350	8%
Total	9,580	1,650	1,740	17%

*Actual average seats/trip for Spring 2014 was as follows: 18X:58, 21X:56, 56X:52, 120:58, 121:58 and 358:48
†ETS Proposal was based on 58 seats/trip

TRANSIT CAPACITY LEVEL OF SERVICE

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

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

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

Enhanced Transit Service Table 6

TRANSIT CAPACITY AND QUALITY OF SERVICE MANUAL LOAD FACTOR GUIDELINES

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

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

Spring 2014 Transit Capacity Compared to Spring 2009 Baseline – Enhanced Transit Service tables 7, and 8 display the number and percent of riders experiencing a transit capacity LOS of C or worse when traveling in the peak direction during the peak period as compared to the Spring 2009 baseline.

Crowding happens when demand pushes the limits of capacity. Changes in crowding reflect a change in the capacity, the demand or both. The 29 percent increase in peak period ridership among routes with WSDOT-funded trips has resulted in a greater number of riders experiencing transit capacity level of service C or worse, **despite WSDOT's investment. Overall, there** were 1,790 more AM and 1,300 more PM peak period riders experiencing transit capacity level of service C or worse than there were in Spring 2009. Relative to Spring 2012, the increase was even more pronounced, with 1,890 more AM and 2,000 more PM peak period riders experiencing transit capacity level of service C or worse. The increase in riders experiencing transit capacity level of service C or worse on routes with WSDOT funded trips was comparable to the increase in riders experiencing transit capacity level of service C or worse for the pathways overall, as shown in Tables 9 and 10.

Enhanced Transit Service Table 7

COMPARISON OF SPRING 2014 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	2014	2009	2014	2009	2014	2009	2014
18X	0.87	1.09	4	5	77%	100%	270	350
21X	0.83	0.80	5	5	87%	63%	340	300
56X	0.7	0.74	3	4	76%	75%	200	210
120	0.76	0.95	6	15	46%	92%	400	1,120
121	0.47	0.67	0	2	0%	42%	0	130
E Line	0.73	1.12	9	21	57%	100%	730	1,620
Total							1,940	3,730

Enhanced Transit Service Table 8

COMPARISON OF SPRING 2014 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	2014	2009	2014	2009	2014	2009	2014
18X	0.78	0.89	4	4	63%	73%	260	320
21X	0.78	0.78	2	4	47%	57%	160	250
56X	0.68	0.78	2	3	53%	62%	130	170
120	0.77	0.77	9	10	60%	47%	610	720
121	0.68	0.49	2	0	29%	0%	90	0
E Line	0.80	1.05	15	25	74%	100%	1,140	2,230
Total							2,390	3,690

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

Enhanced Transit Service Table 9

SPRING 2014 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	2014	2009	2014	2009	2014
Pathway A – Ballard/Magnolia	58%	89%	24	41	1,480	3,240
Pathway B – Aurora Fremont	53%	97%	37	72	2,500	5,690
Pathway I – SODO/Georgetown	16%	29%	6	10	270	540
Pathway J – West Seattle	52%	78%	38	60	2,170	4,120
All Pathways	49%	81%	105	183	6,420	13,590
Inbound Trips All Other Times of Day						
	2009	2014	2009	2014	2009	2014
Pathway A – Ballard/Magnolia	27%	62%	27	51	1,360	3,850
Pathway B – Aurora Fremont	26%	34%	46	69	2,870	5,050
Pathway I – SODO/Georgetown	8%	6%	5	5	210	240
Pathway J – West Seattle	16%	20%	22	26	1,150	1,800
All Pathways	22%	32%	100	151	5,590	10,940
Total Inbound Trips			205	334	12,010	24,530

Enhanced Transit Service Table 10

SPRING 2014 SERVICE CHANGE COMPARISON OF OUTBOUND WEEKDAY PASSENGER LOADS BY CORRIDOR PEAK PERIOD SUMMARY WITH SPRING 2009 BASELINE						
PM 3:00 – 6:00 Outbound						
Corridor	% of riders at a transit capacity LOS of C or worse		# of trips in period providing a transit capacity LOS of C or worse		Est. Number of daily riders at a transit capacity LOS of C or worse	
	2009	2014	2009	2014	2009	2014
Pathway A – Ballard/Magnolia	45%	65%	22	41	1,320	3,240
Pathway B – Aurora Fremont	59%	75%	48	72	3,000	5,690
Pathway I – SODO/Georgetown	40%	23%	12	10	560	540
Pathway J – West Seattle	51%	57%	34	60	2,090	4,120
All Pathways	52%	61%	116	183	6,970	13,590
Outbound Trips All Other Times of Day						
	2009	2014	2009	2014	2009	2014
Pathway A – Ballard/Magnolia	22%	62%	24	51	1,280	3,850
Pathway B – Aurora Fremont	23%	34%	38	69	2,550	5,050
Pathway I – SODO/Georgetown	6%	6%	3	5	140	240
Pathway J – West Seattle	11%	20%	14	26	840	1,800
All Pathways	18%	32%	79	151	4,810	10,940
Total Outbound Trips			195	334	11,780	24,530

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 2014 ETS proposal, Metro budgeted 900 hours of flexible services to meet these needs. However, no flexible hours were deployed during the course of the February 2014 service change.

WATER TAXI AND SHUTTLE SERVICE

Water Taxi and shuttle services operated on a peak oriented schedule from October 28, 2013 to April 4, 2014. The period from February 15th to April 4th, 2013 coincided with Metro's Spring 2014 service change. As shown in Table 12 below, the Water Taxi attracted over 400 rides and provided over 4,000 additional seats each day between West Seattle and Downtown Seattle. Many of the trips on the Water Taxi were made in combination with trips on the Water Taxi shuttle services.

Enhanced Transit Service Table 12

Daily Ridership and Capacity, Water Taxi and Shuttle, Spring 2014						
Route	Peak Period		Shoulder Periods		TOTAL	
	Rides	Seats	Rides	Seats	Rides	Seats
Water Taxi	360	3,610	60	860	420	4,470
Water Taxi Shuttles	N/A*	N/A*	N/A*	N/A*	240	810

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

Transit Travel Time Report

TRAVEL TIME REPORT PURPOSE

As part of the 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 2014 service change condition to the previous travel time report (Fall 2013) and the baseline condition (Fall 2009). The list below show the dates of when travel time observations were collected for those conditions:

- Fall 2009 service change (baseline condition): September 21, 2009 through October 16, 2009
- Fall 2013 service change condition: January 22, 2014 through February 14, 2014
- Spring 2014 service change condition: May 12, 2014 through June 6, 2014

Travel time data was collected and processed as discussed below:

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

Spring 2014 Service Changes and Impacts to Travel Time Reporting

RapidRide E Line service began In Spring 2014, replacing Route 358. The E Line closely follows the old Route 358, except in the southbound direction between Winona and 63rd Street where E Line now stays on Aurora Ave instead of deviating onto Woodlawn Ave and Linden Ave. This change impacts Pathway B.1, however the general pathway definition and endpoints remain the same.

System Status and Data Availability

As of the current reporting period, the following AVI readers have been offline:

- 4th Ave & S Jackson St – Offline since summer 2013 due to interference issue

- 1st Ave & Denny Way – Offline since September 2013 and disconnected in 2014 due to utility pole relocation
- 3rd Ave & Battery St – Offline since September 2013 due to loss of backhaul connection (1st & Denny)
- 5th Ave & Pine St – Offline since April 2014 due to loss of line-of-sight for communication due to private development

When AVI data is not available, AVL data has been substituted. Although AVL should provide comparable travel times for most pathways, it is not as accurate and is not able to track coaches that are off-route. Pathway I.2 in the inbound direction does not have any comparable AVL data, and this chart has been removed from the report.

For the next reporting period (Summer 2014), a new data source based on Metro’s new On Board Systems (OBS) is planned to be incorporated into this travel time report. The new data source will improve the reliability and accuracy of the bus monitoring system and will help reduce data loss due to offline AVI readers.

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 85th	1 st Ave/Denny **	D-Line
	A.2	Ballard	15 th NW/NW 85th	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 **	<i>E-Line</i>
	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./Nickerson	Denny/Westlake	62
	B.5	South Lake Union	15 th NW/Leary Way	Denny/Westlake	40
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, 123
	I.2	South Seattle/Burien	4 th Ave S/S Michigan	4 th /2 nd Ave/Jackson **	131, 132
J	J.1	West Seattle	Alaska Jct	3 rd Ave/Seneca	none
	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)	C-Line, [21X]
	J.4	West Seattle	California Ave/SW Fautleroy Way	3 rd Ave/Yesler	116, 118, 119
	J.5	West Seattle/Burien	Delridge Way/Andover	1 st Ave/Columbia (OB) 1 st Ave/Seneca (IB)	120, 125
	J.7	West Seattle	Admiral Way/California Ave	1 st Ave/Columbia (OB) 1 st Ave/Seneca (IB)	56X, 57
CBD	CBD.2	2 nd Ave	4th Ave/Stewart	2 nd /Jackson **	Many
	CBD.3	3 rd Ave	3 rd Ave/Stewart	3 rd Ave/Yesler	Many
	CBD.4	4 th Ave	4 th Ave/Jackson **	4 th Ave/Stewart	Many
	CBD.5	5 th Ave	5 th Ave/Pine **	5 th Ave/Weller **	Many
	Columbia	Columbia St	3rd Ave/Seneca	1st Ave/Columbia	Many

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

** Pathway affected by AVI reader outage.

TRAVEL TIME DATA

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

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

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

Travel Time Table 2: Spring 2014, Fall 2013, and Baseline Travel Speeds

Performance by Pathway Group: Spring 2014, Fall 2013, & Baseline Comparison					
Pathway Group	Area	Service Change Period	Median Speed [MPH]	AM Peak Period* Hourly Median Range [MPH]	PM Peak Period* Hourly Median Range [MPH]
A	Ballard, Interbay	Spring '14	15.3	12.7 – 19.2	13.1 – 16.9
		Fall '13	16.0	12.6 – 18.5	13.6 – 17.0
		Baseline	14.9	12.1 – 23.6	11.4 – 19.0
B	Aurora, Fremont	Spring '14	18.2	11.5 – 23.5	10.2 – 20.2
		Fall '13	17.7	11.2 – 23.8	10.1 – 21.1
		Baseline	18.6	11.0 – 22.7	11.0 – 20.3
I	SODO, Georgetown	Spring '14	17.4	17.0 – 34.0	12.8 – 23.7
		Fall '13	18.1	17.0 – 33.4	13.5 – 20.0
		Baseline	17.7	16.4 – 48.4	12.7 – 21.7
J 1 st Ave	West Seattle via 1 st Ave S	Spring '14	14.2	12.1 – 18.5	12.9 – 17.3
		Fall '13	14.2	12.9 – 17.8	12.7 – 17.6
		Baseline	15.9	11.9 – 20.7	12.4 – 21.0
J AWV	West Seattle via AWV	Spring '14	29.4	17.6 – 33.4	21.3 – 33.7
		Fall '13	28.4	18.3 – 32.8	19.8 – 33.7
		Baseline	30.1	20.1 – 36.6	22.1 – 33.8
CBD	2 nd - 5 th Avenues	Spring '14	6.8	5.3 – 10.5	4.3 – 9.5
		Fall '13	6.7	5.3 – 10.7	4.7 – 9.2
		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 2014 Highlights

During the Spring 2014 reporting period, construction activities intensified in the South Lake Union area due to the WSDOT North Access project, adding to delays already occurring in the area due to the Mercer West and East projects. The Mercer West project also had intermittent lane closures in the Uptown area. These new impacts have increased travel times on Dexter and Aurora during the AM & PM peak flow directions, and reduced overall performance of "A" pathways.

In the South Portal area, construction activities and use of the Wosca Detour continued to impact transit pathways on the AWW and parallel local streets. The completion of the SR-99 Spokane St Overcrossing Project (timber bridge replacement) south of the West Seattle Bridge has helped relieve travel times on Pathway I.1

A handful of private development construction projects with short and long term lane closures occurred during this reporting period, particularly in the South Lake Union and north CBD area.

J Pathways

J Pathways on 1st & 4th Avenue S and on the AWW have overall maintained median speeds compared to Fall 2013 conditions. PM peak flow travel times have seen some improvement, while AM peak flow travel time changes are mixed for the individual pathways. AM travel times on both AWW and 1st & 4th are still 3 – 5 minutes longer compared to baseline conditions.

B pathways

Pathways B.1 and B.2 continue to be impacted by ongoing construction in the vicinity of SR-99 and Mercer area. Pathway B.1 (Aurora Ave up to 85th St) has shown travel time improvement throughout most of the day due to improvements implemented with RapidRide E Line service including more-efficient routing, off board fare collection, schedule improvements, and transit signal priority; these benefits have been documented in a before-and-after study compiled by Metro in July 2014. Pathway B.2 (Aurora Ave up to 38th St), meanwhile, did not have any of these improvements and has shown 1 – 2 minutes higher travel time during the PM peak flow direction in Spring 2014, now about 3 – 4 minutes longer than baseline. Pathway B.3 on Dexter Ave is about one minute longer in the AM & PM peak flows. Pathways using Westlake Ave (Pathway B.4 and B.5) have remained about the same since Fall 2013.

Additional highlights of changes in travel time and travel speeds observed in Spring 2014 compared to Fall 2013 and baseline conditions are noted below. See Appendix A for details.

- A Pathways overall show slightly slower speeds in Spring 2014 compared to Fall 2013, without any particular time period standing out as becoming worse. This may be due to additional lane closures and traffic diversion due to North Portal, Mercer project, and Alaskan Way surface street detours.
- Pathway I.1 has improved to near-baseline conditions in the inbound direction due to the completion of the SR-99 Spokane St Overcrossing Project (timber bridge replacement). Inbound trips, however, are still delayed by the bottleneck created by the WOSCA detour and are still operating 3 – 5 minutes longer than baseline conditions during AM & PM peaks.
- Pathway CBD2 shows continued travel time increases during the PM peak. The First Hill Streetcar construction on Jackson Street is likely impacting this pathway, and may be worse this period due to additional special events in Spring 2014 compared to Fall 2013.
- Pathway CBD3 travel times have held steady and show one minute or less travel time improvement during the PM peak. New RapidRide kiosks that provide off-board fare collection have been reducing dwell times at busy bus stops on this corridor, particularly during the PM peak when the boardings are highest.

SERVICE ADDITIONS TRAVEL TIME

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

Route 21X [Pathway J.3] – Pathway J.3 shows a slight worsening in travel time in the inbound direction during the AM and PM peaks compared to Fall 2013. Pathway J.3 had shown increases in travel time after the beginning of the Wosca Detour, but then showed improvement after implementation of RapidRide improvements. Route 21X benefits from a few of the Rapid Ride improvements, such as the AM peak period bus lane on Avalon Way, but does not receive the full complement of C Line RapidRide improvements. Based on previous and current travel time results, route 21X is likely experiencing travel times about 5 minutes longer than the baseline condition during the AM peak flow.

Route 56X [Pathway J.7] – Pathway J.7 is a peak-only pathway using the AWW. This pathway has shown minor travel time improvements of less than one minute per trip in the PM peak compared to Fall 2013. AM inbound travel times on this pathway are highly variable due to continued use of the Wosca Detour.

Route 121 [Pathway I.1] – Pathway I.1 is a peak-only pathway with limited reverse-peak trips. PM outbound travel times have improved on this pathway since completion of the SR-99 Spokane St Overcrossing Project (timber bridge replacement). AM inbound travel times are still 3 – 4 minutes greater than baseline conditions.

Route 120 [Pathway J.5] – Pathway J.5 has shown some improvement in the PM peak flow direction consistent with other J pathways; about one minute savings compared to Fall 2013. AM travel times are still 2 – 4 minutes longer than baseline conditions.

Route 18X [Pathway A.2] – Pathway A.2, a peak-only pathway using 15th Ave and Elliott Ave, is performing about the same as Fall 2013 conditions, with slightly higher travel times during the PM peak hour. Travel times on this pathway during AM and PM peaks are about 1 – 3 minutes longer than baseline conditions.

RapidRide E Line [Pathway B.1] – Pathway B.1 continues to be impacted by construction and lane closures related to the Mercer and North Access projects, which has increased during this reporting period. Pathway B.1, however, has shown overall improvement due to RapidRide improvements and BAT lanes north of the Aurora Bridge. Pathway B.2 provides a better picture of the effects that construction activities in the South Lake Union area have on Pathway B.1. PM Peak travel times in the outbound direction on Pathway B.2 have increased by about 2 minutes since Fall 2013 and are about 3 minutes longer than baseline conditions.

Transportation Demand Management Report

TDM REPORT PURPOSE

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

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

TDM Table 1

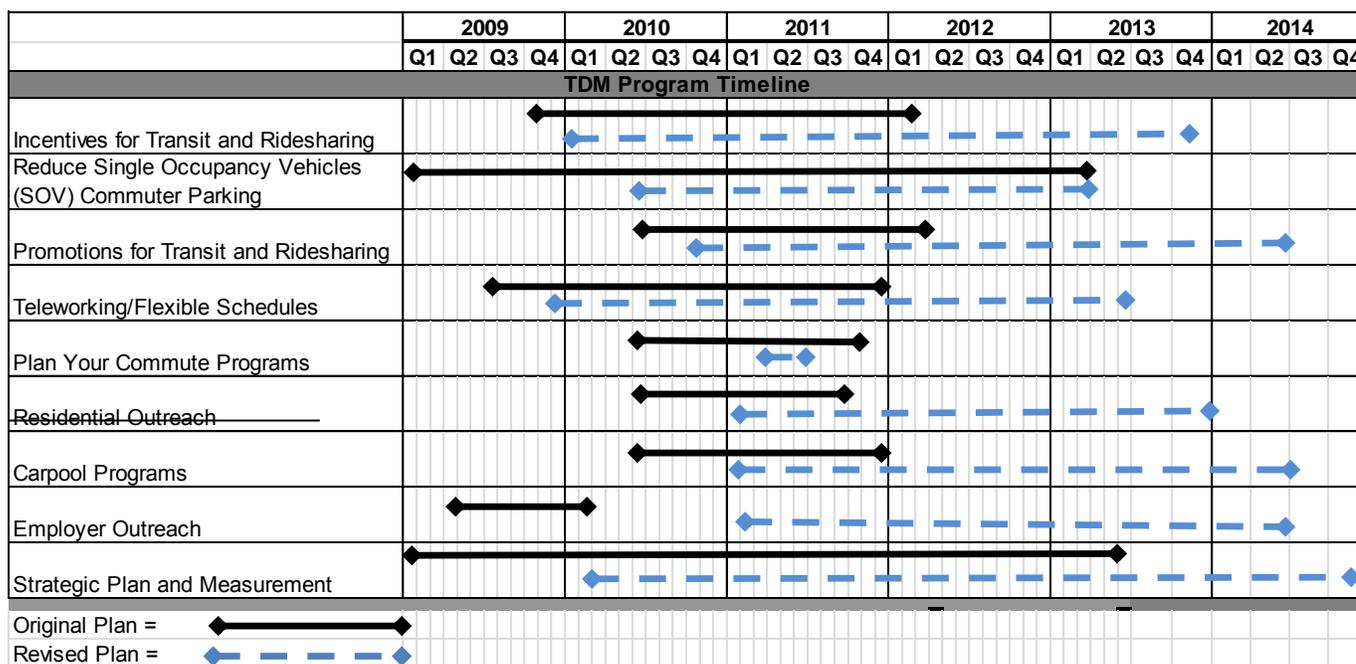
TDM Project Definitions for Downtown Seattle and the South End SR 99 Corridor	
Program	Description
Incentives for Transit and Ridesharing \$343,520 WSDOT	Provide a minimum of 2,500 transit pass incentives to downtown Seattle employers.
Reduce Single Occupancy Vehicles (SOV) Commuter Parking \$225,000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

Carpool Programs \$105,000 WSDOT	Offer 2,000 incentives to new carpoolers in the SODO/Duwamish and West Seattle areas.
Employer Outreach \$100,000 WSDOT	Offer transit passes or subsidies to smaller employers (not required to participate in commute trip reduction) in SODO/Duwamish and the downtown neighborhoods (Lower Queen Anne, South Lake Union, First Hill, etc.).
Strategic Plan and Measurement \$51,612 WSDOT	Analyze and report on overall results of transportation demand management efforts
Match \$1,050,000 Metro	

TDM PROGRAM TIMELINE

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

TDM Table 2



TDM Program Update and Performance

Listed below in TDM Table 3 are the TDM program updates for February 2014 to June 2014.

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

Individual tasks often targeted the same employers and travelers with different approaches. Task implementation also had to remain flexible to respond to factors beyond the project including staffing resources, agency policies, data gathering, gas prices or the economy. These factors made it difficult to attribute a trip reduction to a single task. To address this difficulty, King County Metro and WSDOT reviewed and documented changes to task level deliverables, trip reduction targets, funding allocations and performance measurement methodology. **This ensured the task's** deliverables, expected performance, and final cost per trip reduced remained aligned. The adjustments outlined do not result in any net changes at the overall agreement level to deliverables, trip reduction targets or budget for the mitigation program.

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

TDM Table 3

TDM Program Update – (February 2014 – June 2014)	
Incentives for Transit and Ridesharing	<p>Performance: 402 trips have been reduced, exceeding the revised trip reduction target of 236.</p> <p>Activities: Incentives continued to be offered in the Center City for first year Passport purchases. There were 665 incentives/passes distributed from February 2014 through June 2014.</p>
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	<p>Performance (no change): As of program completion in February 2013, 2,063 long-term parking spaces have been reduced, but no trips have been reduced. However, this service period showed a reduction in the number of vehicles parked by 9AM, which are assumed to be commuters, in five of the six reporting facilities. The decrease in parking occupancy is consistent with the 2012 Downtown Seattle Modesplit Survey from Commute Seattle (http://www.commuteseattle.com/2012survey/) showing a decrease from 2010 to 2012 in the number of commuters that drive alone or carpool to work, with increases in those that take transit, walk or bike.</p> <p>SDOT’s e-Park system went ‘live’ fall 2010 during the Great Recession when unemployment was high and fewer people were using long-term parking in downtown. Now the economic recovery is increasing the number of office workers, shoppers and tourists returning to downtown Seattle looking for long-term and short-term parking.</p> <p>Comparing e-Park baseline obtained during the recession to the subsequent data collected during an economic recovery is not a true measurement of this task’s performance. A pre-recession baseline of parking data would provide a more complete understanding of the parking trends in downtown Seattle and the effect of this task. Unfortunately garages are reluctant to share additional information that would enable more accurate trip reduction estimates because they consider the information to be proprietary to their business.</p> <p>Activities: Work on this task was completed in December 2012.</p>
Promotions for Transit and Ridesharing	<p>Performance: The Promotions trip target of 1,380 has been exceeded with 19,064 trips reduced.</p> <p>Activities: A final round of outreach was performed in late spring 2014. The “Which Way Today” campaign was designed to aid individuals in understanding their full range of travel options, and provide them tools to try various options best suited to the travel needs of a particular day. Promotional newspaper inserts reached 20,800 households in the AWW travel shed. Geo-targeted online advertising reached an unknown number of households throughout the area during this period, but resulted in over 500 people visiting the program website. In total over 1,300 people responded to the promotion.</p>
Teleworking/Flexible Schedules	<p>Performance (no change): Companies participating in the program have reduced 290 trips as a result of the telework program. This includes 142 trips from two companies that completed a telework/compressed work week survey and the remainder calculated based on available CTR survey data for participants.</p> <p>Activities: Final case studies were prepared and the final telework report completed.</p>
Plan Your Commute	<p>Performance (no change): The program has reduced 33 trips.</p> <p>Activities (no change): Work on this task was completed in June 2011, with 83 of the 36 required events held, and more than 15,000 pledges in Rideshare Online, more than exceeding the 1,800 required. Benefits of this task are on-going.</p>

<p>Residential Outreach</p>	<p>Performance <i>(no change)</i>: The program has reduced an average of 451 weekday round trips during peak hours daily, 327 trips during non-peak hours and 397 daily trips on weekends. Both the trip reduction and participation targets have been exceeded for this task.</p> <p>Activities: The final In Motion project work under this task concluded in December 2012. Future activity will include analysis of ORCA card reload data.</p>
<p>Carpool Program</p>	<p>Performance: 701 trips have been reduced through this program, well above the goal of 370. This is an increase of 10 trips from last period's report.</p> <p>Activities: Metro continued promoting its "In a van, I can" campaign. This campaign utilizes social media, bus advertising, posters, newsletters, postcards, participant testimonials and outreach to strengthen Metro's vanpool program by retaining current participants and attracting new participants. These promotional efforts continued through June 2014 and focused on new vanpool formations.</p>
<p>Employer Outreach</p>	<p>Performance: This program has reduced 1,242 trips.</p> <p>Activities: Ongoing employer support was provided via employer network groups and local events and 272 new Passports were sold during this period.</p>

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

- Promotions: target 1,380 trips, total of 19,064 trips reduced to date
- Incentives: target 236 trips, total of 402 trips reduced to date
- Residential Outreach: target 390 trips, total of 451 trips reduced to date
- Employer Outreach: target 100 trips, total of 1,242 trips reduced to date
- Carpool: target 370 trips, total of 701 trips reduced to date

To date, 22,183 trips have been converted, nearly 500% of the 4,130 trips targeted for reduction.

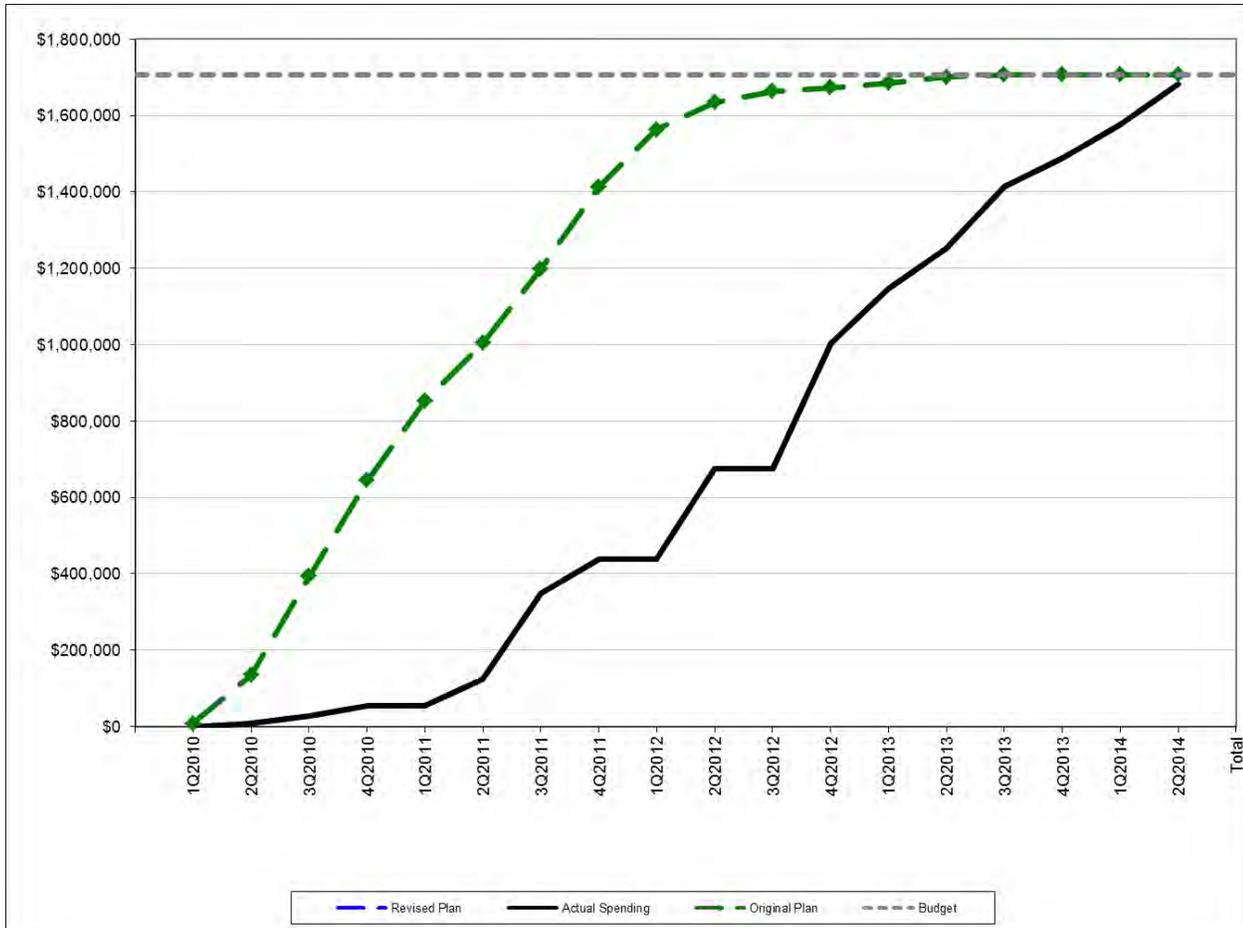
TDM Table 4

Activity	Trip Reduction (round trips reduced daily)		Individual Metrics		
	Target for entire program period	Current performance	Description	Target for entire program period	Current performance
Promotions for Transit and Ridesharing	1,380	19,064	Households / Employees	165,000	215,784
Incentives for Transit or Ridesharing	236	402	Transit Pass Incentives	2,284+	7,864
			Incentives to Garages	5	5
Carpool Program	370	701	Carpool Incentives	2,000	7,344
Reduce Single Occupancy Vehicles (SOV) Commuter Parking	200	0	Net Reduction of Downtown Long-Term Parking Spaces	2,000	2,063
Residential Outreach	390	451	Household Participation Rate	10%	14.2%
Plan Your Commute	744	33	Pledges	1,800	15,000+
			Transit Passes Distributed	N/A	216
			Pre-loaded ORCA Cards Distributed	N/A	331
Teleworking	710	290	Number of Companies Participating	15-20	10
Employer Outreach	100	1,242	Transit Passes Distributed	N/A	1,164
TOTAL	4,130	22,183			

TDM BUDGET AND EXPENDITURE – JUNE 2014

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

TDM Table 5



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

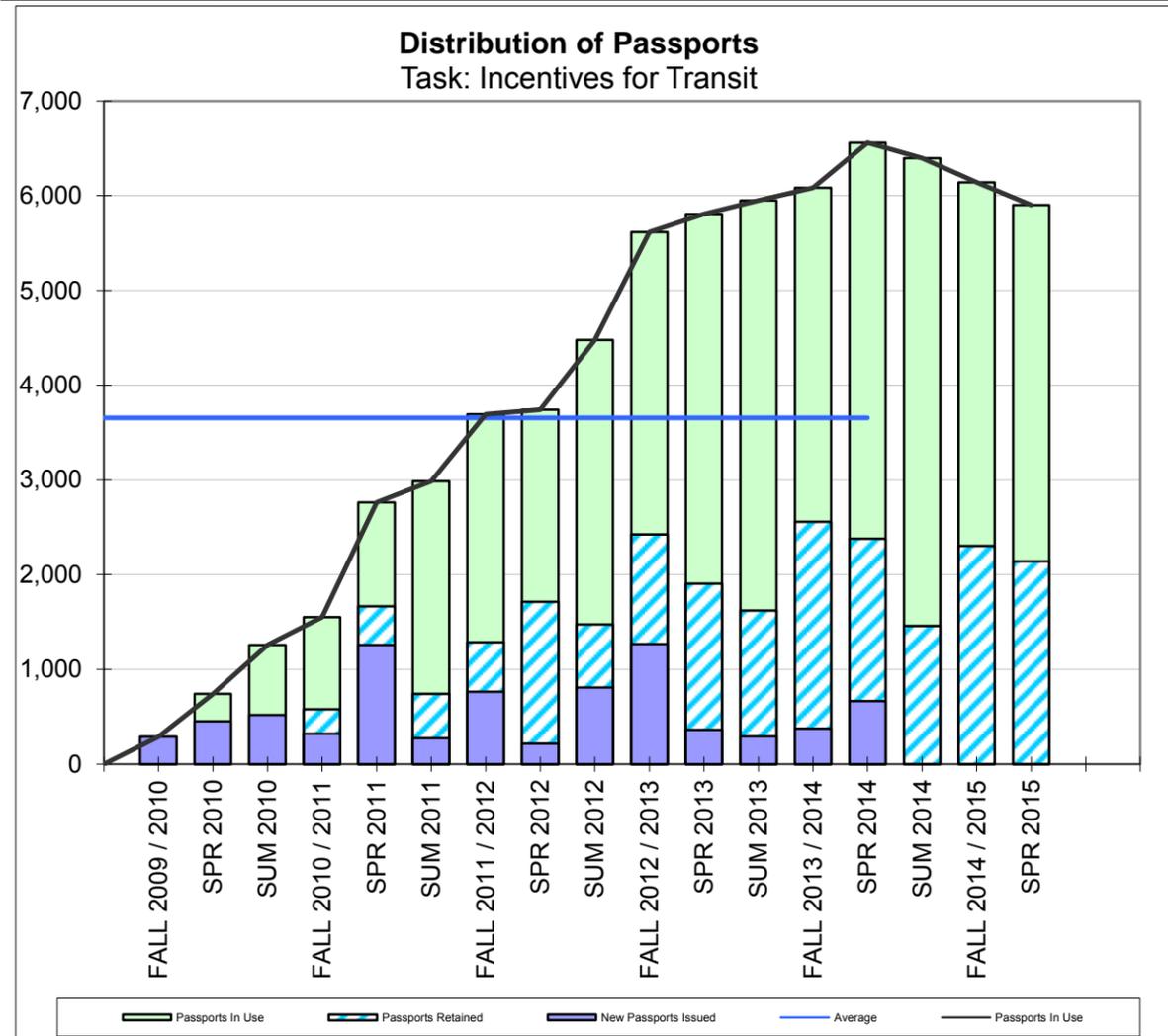
Target*	
1,380	Trips Reduced*
165,000	Households / Employees

Weekday Ridership, SPR 2009 through SPR 2014																	WSDOT Analysis														
Pathway / Route	Baseline			Targeted Promotions by Pathway or Route and Service Period													Annualized Trip Reductions										Total Round Trips Reduced				
	SPR 2009	SUM 2009	FALL 2009	SPR 2010	SUM 2010	FALL 2010	SPR 2011	SUM 2011	FALL 2011	SPR 2012	SUM 2012	FALL 2012	SPR 2013	SUM 2013	FALL 2013	SPR 2014	SPR 2010	SUM 2010	FALL 2010	SPR 2011	SUM 2011	FALL 2011	SPR 2012	SUM 2012	FALL 2012	SPR 2013		SUM 2013	FALL 2013	SPR 2014	SPR 2010 through SPR 2014
Pathway I - SODO / Georgetown	8,260	8,150	7,700	7,540	7,400	7,069	10,571	9,629	8,760			9,356	14,380			14,400	0	0	0	400	224	200				313	940			955	3,032
Pathway J - West Seattle	22,940	22,330	21,860	22,140	21,660	21,374	22,018	26,422	26,970			31,196	32,580			33,620	0	0	0	0	620	966				1,764	1,480			1,661	6,491
Pathway A - Ballard / Magnolia	16,920	17,090	19,120	18,890	18,610	18,394	19,027	17,732	17,540			21,896				24,380	341	230	0	365	97	0				525				1,160	2,718
Pathway B - Aurora / Fremont	31,970	31,960	27,120	28,280	29,460	28,529	29,147	34,410	34,380			41,667				45,420	0	0	239	0	371	1,372				2,749				2,092	6,823
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Task: Incentives for Transit
Task Lead: Carol Cooper

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

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



	Service Period	Garage Incentives	New Passports Issued	Passports Expiring	Passports Retained	Passports In Use	Average Passports In Use
Program Period	FALL 2009 / 2010		288			288	3,654
	SPR 2010		453			741	
	SUM 2010		518			1,259	
	FALL 2010 / 2011		321	288	259	1,551	
	SPR 2011		1,257	453	408	2,763	
	SUM 2011		274	518	466	2,985	
	FALL 2011 / 2012	5	765	580	522	3,692	
	SPR 2012		216	1,665	1,498	3,742	
	SUM 2012		810	740	666	4,478	
	FALL 2012 / 2013		1,267	1,287	1,158	5,616	
	SPR 2013		362	1,714	1,543	5,806	
	SUM 2013		292	1,476	1,329	5,951	
	FALL 2013 / 2014		376	2,425	2,183	6,084	
	SPR 2014		665	1,905	1,714	6,559	
Post Program Period	SUM 2014			1,621	1,459	6,397	6,146
	FALL 2014 / 2015			2,559	2,303	6,141	
	SPR 2015			2,379	2,141	5,903	
	Total	5	7,864				

Average Daily Round Trips Reduced Through Distribution of New Passports	
$= \left(\left(\begin{matrix} \text{Alt. Mode Share} \\ \text{for Passport Sites} \\ \text{During Program} \end{matrix} \right) - \left(\begin{matrix} \text{Alt. Mode Share} \\ \text{for non-Passport Sites} \\ \text{During Program} \end{matrix} \right) \right) * \left(\begin{matrix} \text{Average \# of Passports} \\ \text{In Use During Program} \end{matrix} \right)$	
$= ((44.0\%) - (33.0\%)) * (3,654) =$	402

Task: Carpool Program
Task Lead: Tom Devlin

Target	
370	Trips Reduced
2,000	Carpool Incentives

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

	Service Period	New Vanpools Formed	Vanpools Disbanded	Current Vanpools	Vanpool Riders	One-Way Vanpool Trips	Reported One-Way Carpool Trips		Commute Days in Service Period	Ridesharing Incentives Distributed
Program Period (Service Change, Year)	SPR 2010			0	0	0			88	
	SUM 2010			0	0	0			77	
	FALL 2010 / 2011			0	0	0			86	
	SPR 2011	33	1	32	240	33,792	45,595		88	1,216
	SUM 2011	42	0	74	555	68,376	65,174		77	733
	FALL 2011 / 2012	74	4	144	1,080	165,888	82,423		96	1,508
	SPR 2012	21	5	160	1,200	149,760	61,014		78	705
	SUM 2012	41	16	185	1,388	170,940	81,829		77	809
	FALL 2012 / 2013	69	12	242	1,815	278,784	124,381		96	918
	SPR 2013	29	15	256	1,920	239,616	82,776		78	200
	SUM 2013	34	19	271	2,033	253,656	106,045		78	317
	FALL 2013 / 2014	40	8	303	2,273	352,692	166,656		97	402
	SPR 2014	30	9	324	2,430	307,152	134,494		79	536
% of Reported Trips Resulting in Trip Reductions by Mode						88%	50%	Total		7,344
Participants Newness to Alternate Mode by Type*						57%	36%			
Total Round Trip Reduction (see formula below)						600	101	701		

Total Trip Reduction =

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

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

Task: Telework / Flexible Schedules
Task Lead: Sunny Knott

Target	
710	Trips Reduced
15	Companies Participating

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

Note: 17 companies engaged in developing telework/flex schedule plans. We are measuring performance for the 10 companies that implemented their plans.

290*

Example Russell Investments
 Total Number of Employees at Company 950

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

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

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

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

*Resulting daily round trip reduction equals the sum of

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

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

Task: Plan Your Commute
Task Lead: Carol Cooper

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

Distribution of \$6 Pre-Loaded ORCA Cards

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

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

where

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

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

Eligible Commute Days

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

Trip Reductions	
E-Purse	6
monthly pass	3
Total	9

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

ORCA Passport (Transit Pass) Sales

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

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

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

Total Trip Reduction for Plan Your Commute Task

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

$$= (9) + (24) = 33$$

Interpreting the Hourly Pathway Summaries

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

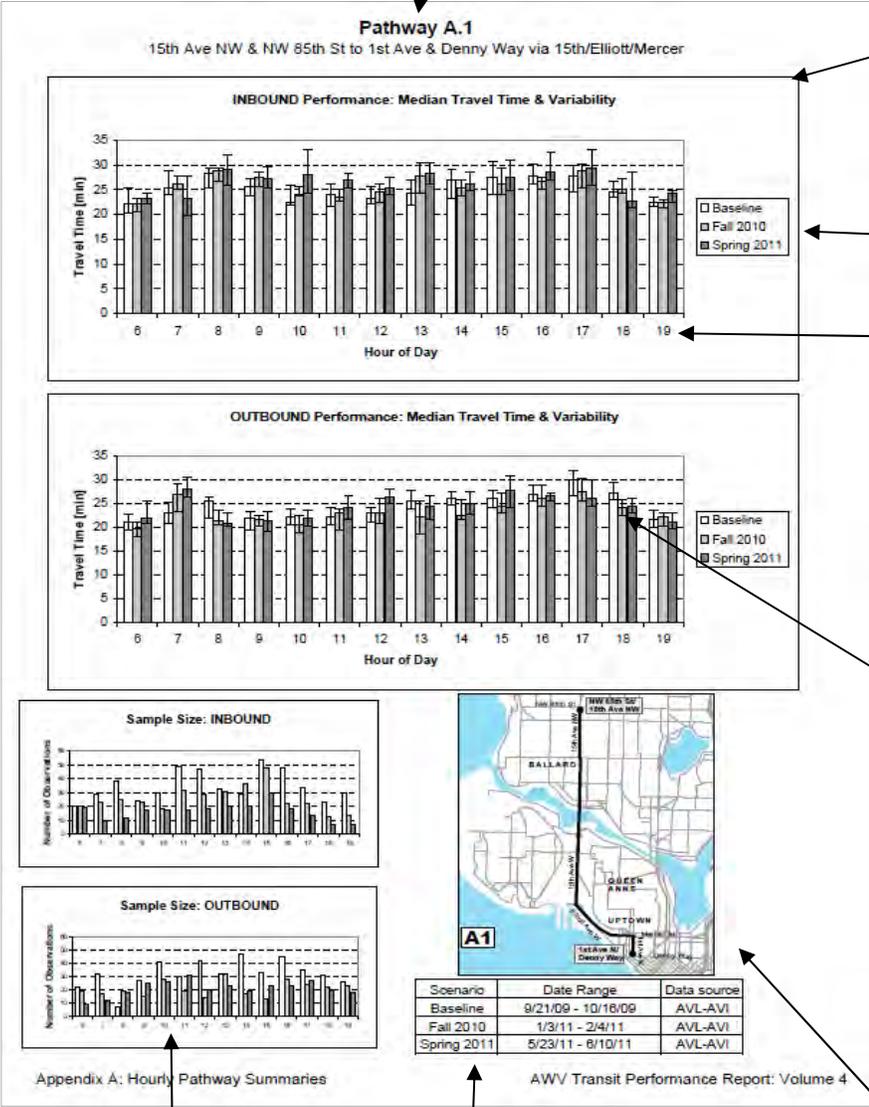
Direction
Most pathways have two directions, either inbound/outbound or northbound/southbound. Inbound trips generally head into the Seattle CBD, and outbound trips generally originate in the CBD. Separate charts are provided for the two directions.

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

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

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

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

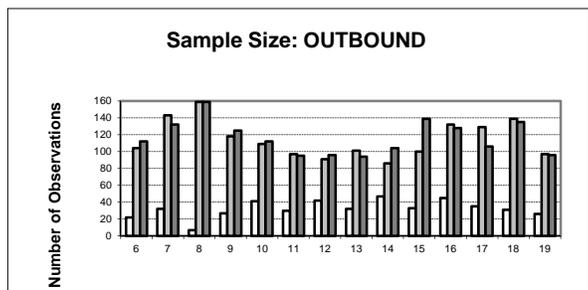
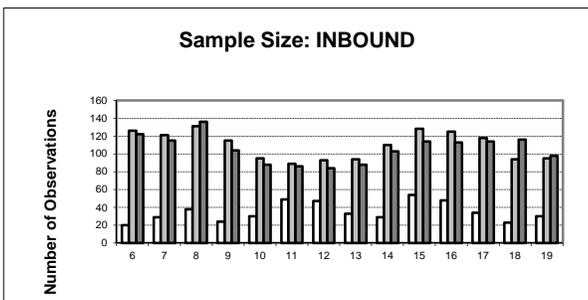
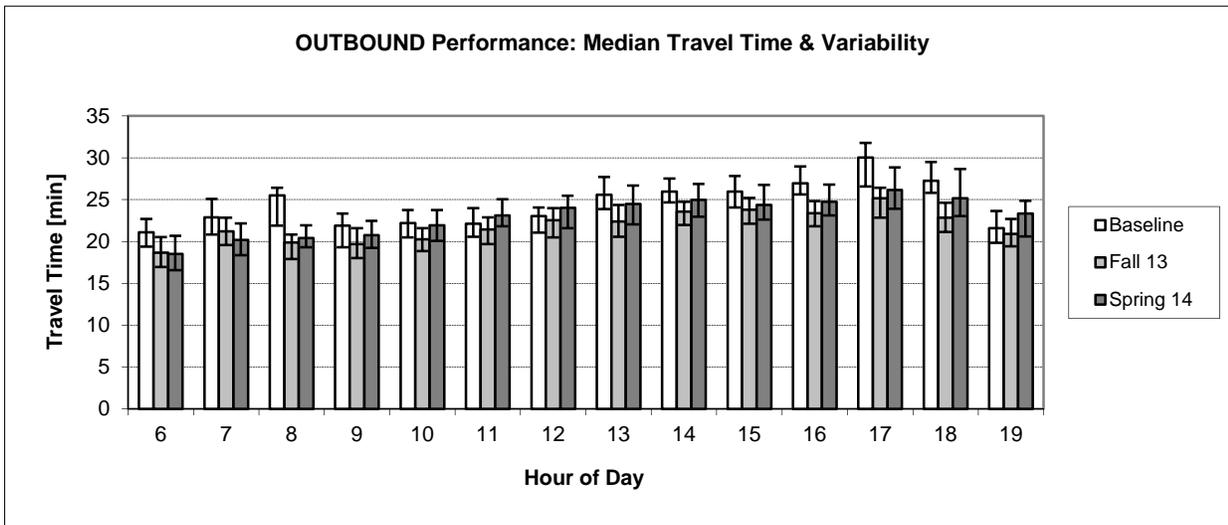
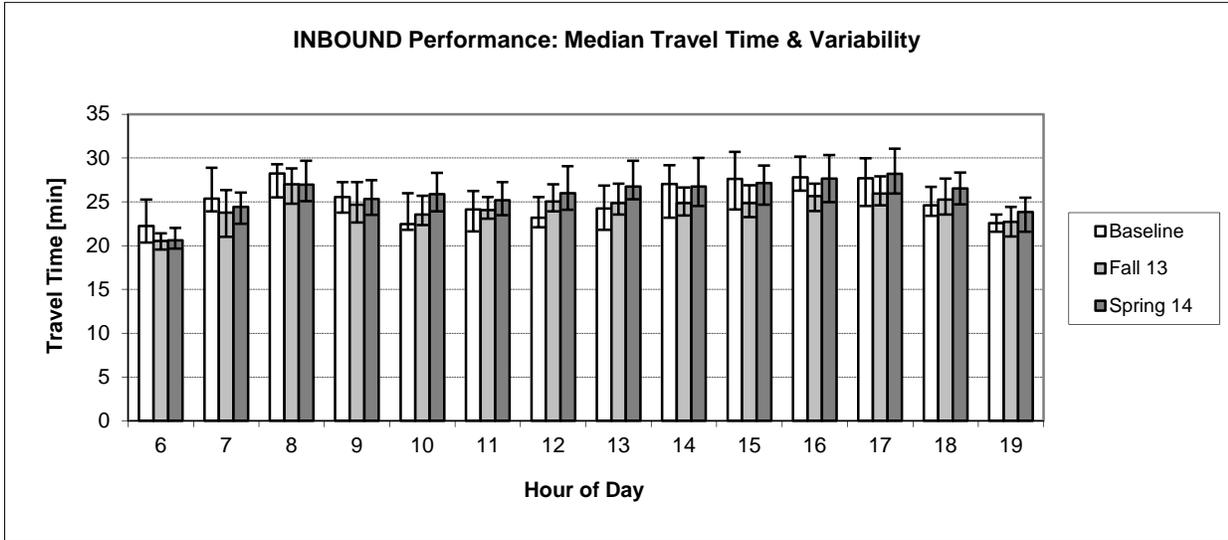


Sample Size Charts
These charts show the number of observations used within each slice of travel time data. These charts provide an indication of the quality and relevancy of the data that is presented in the larger charts.

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

Pathway A.1

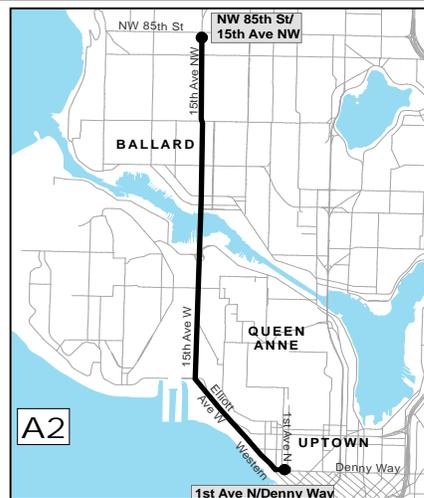
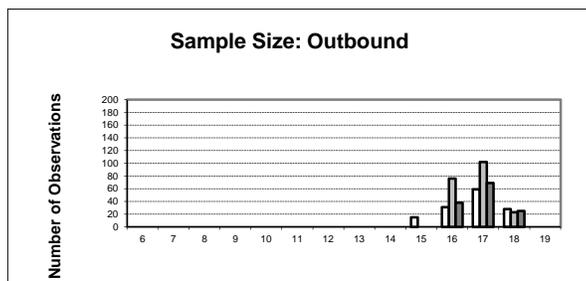
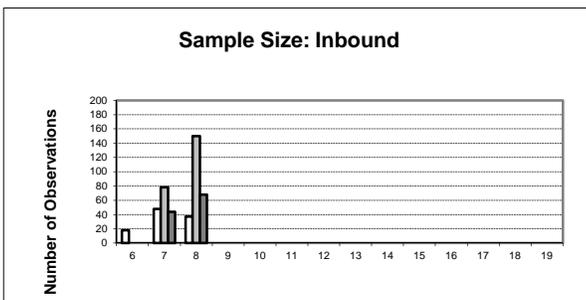
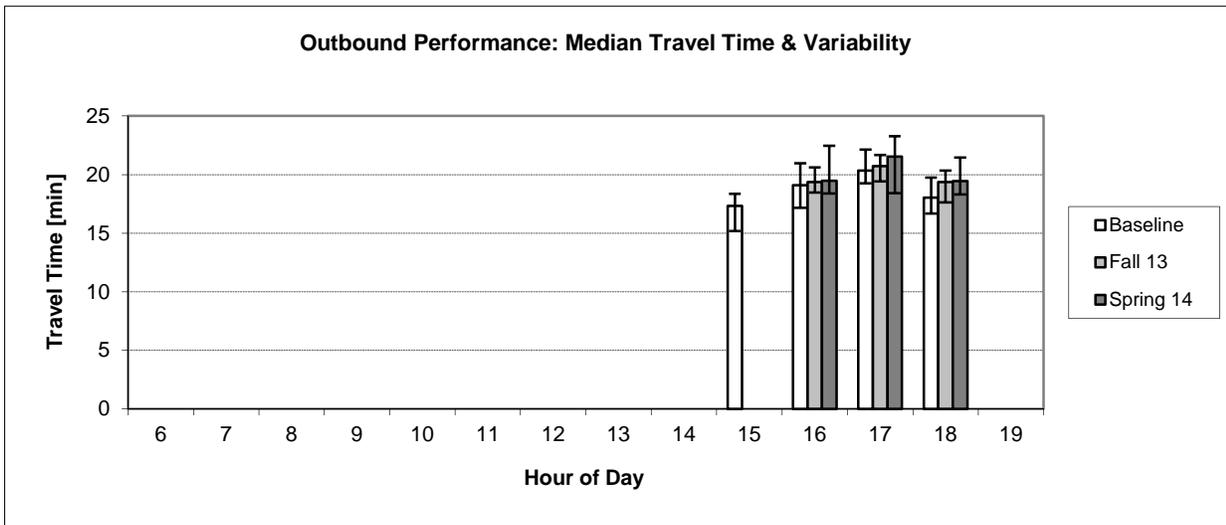
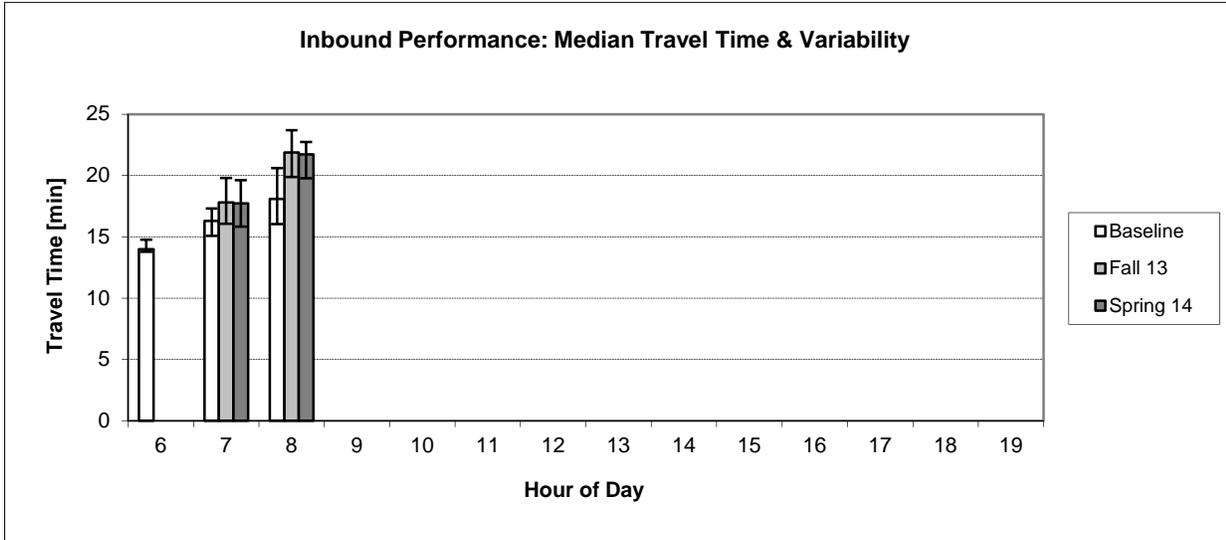
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Mercer



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	TSP
Spring 14	5/12/14 - 6/6/14	TSP

Pathway A.2

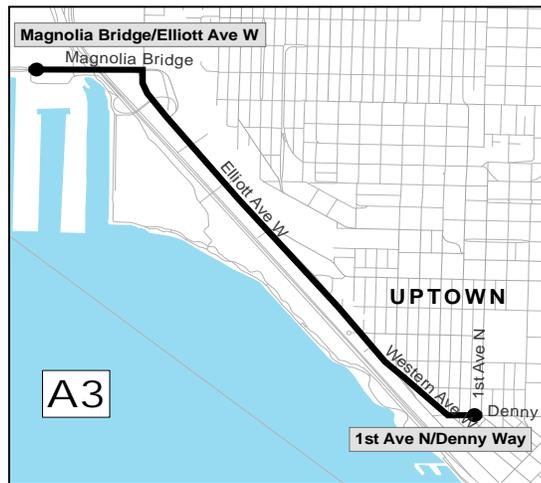
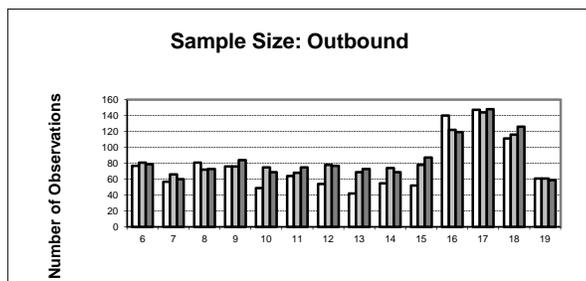
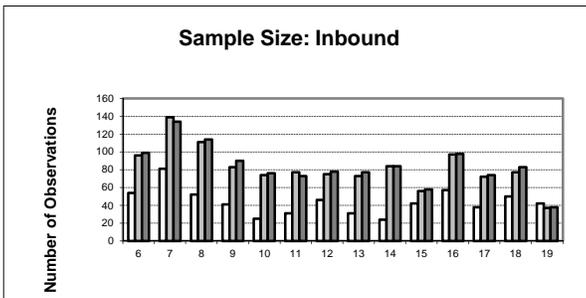
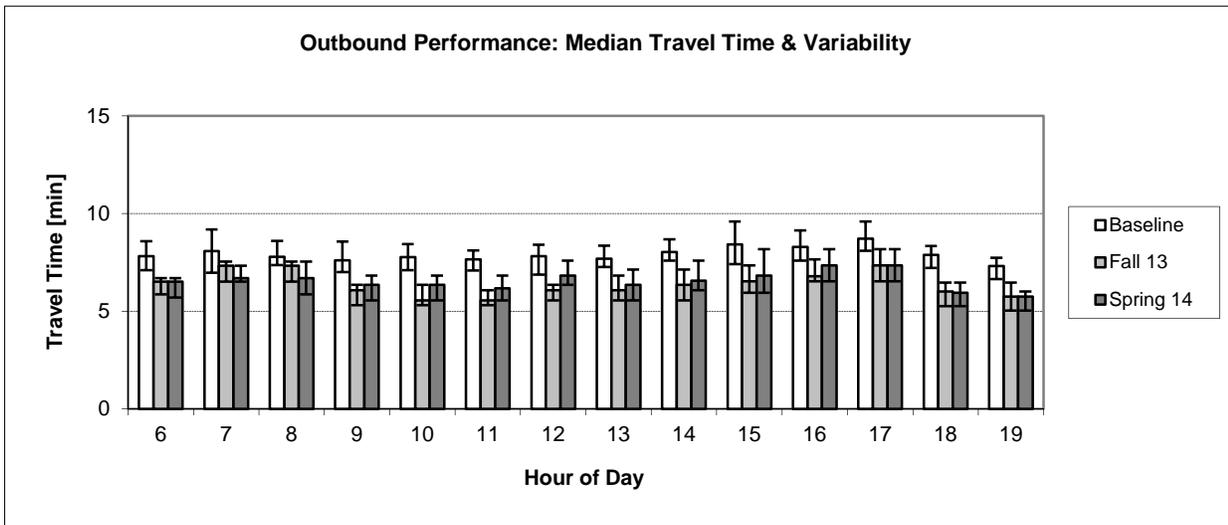
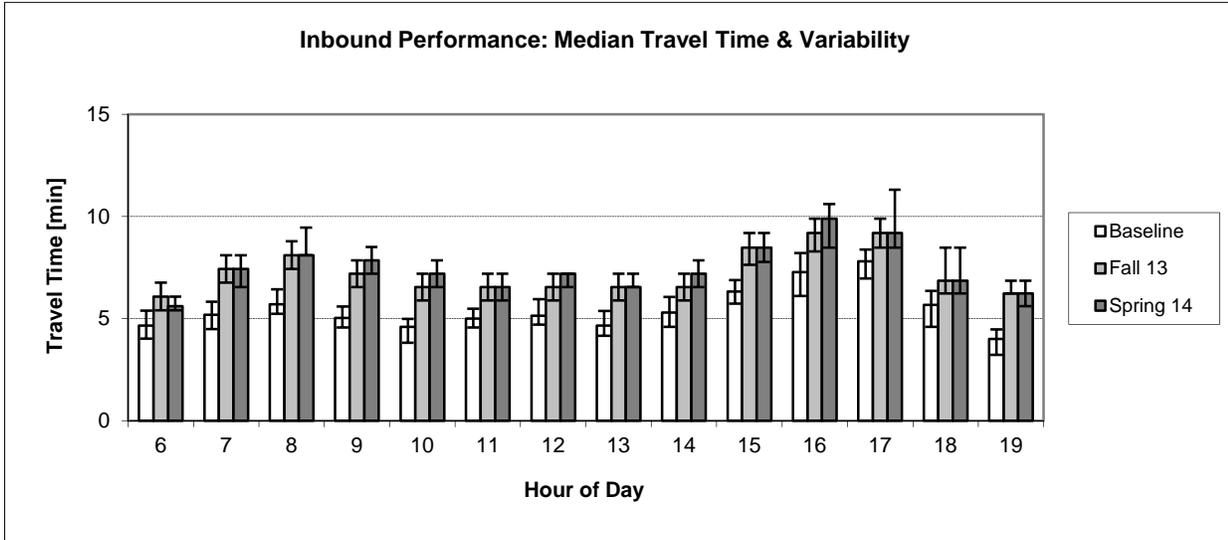
15th Ave NW & NW 85th St to 1st Ave & Denny Way via 15th/Elliott/Western (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL-AVI
Spring 14	5/12/14 - 6/6/14	AVL-AVI

Pathway A.3

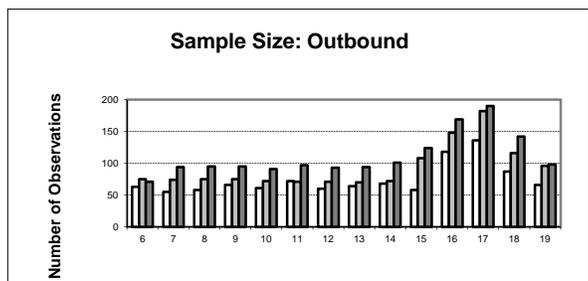
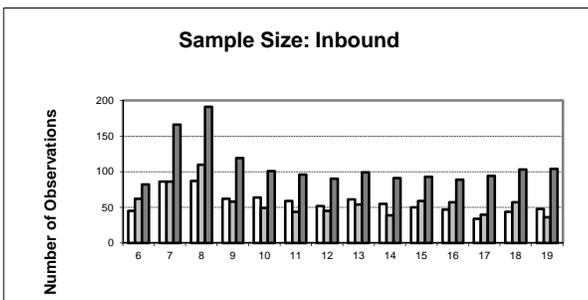
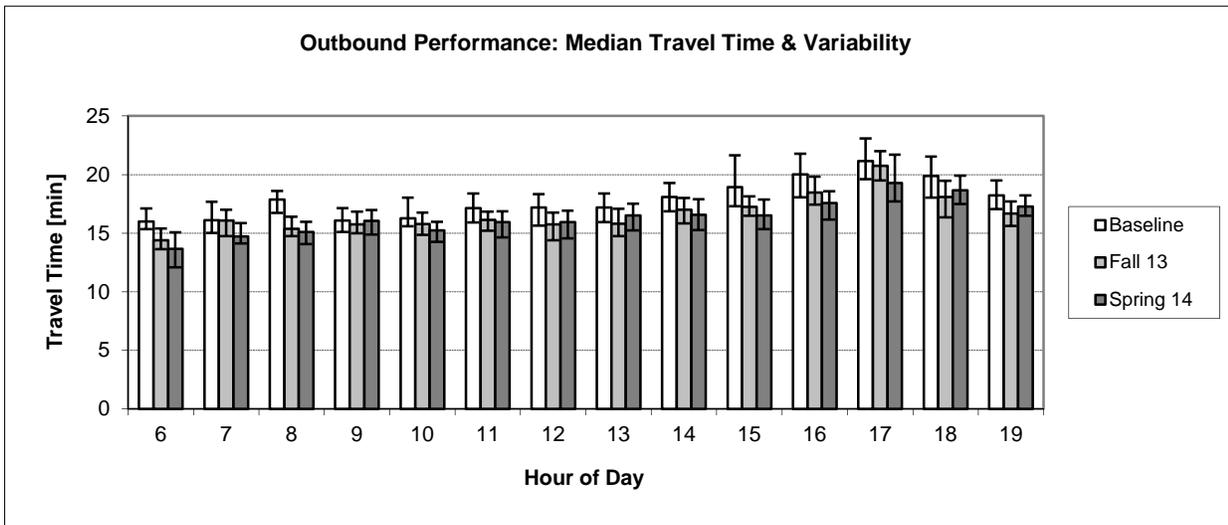
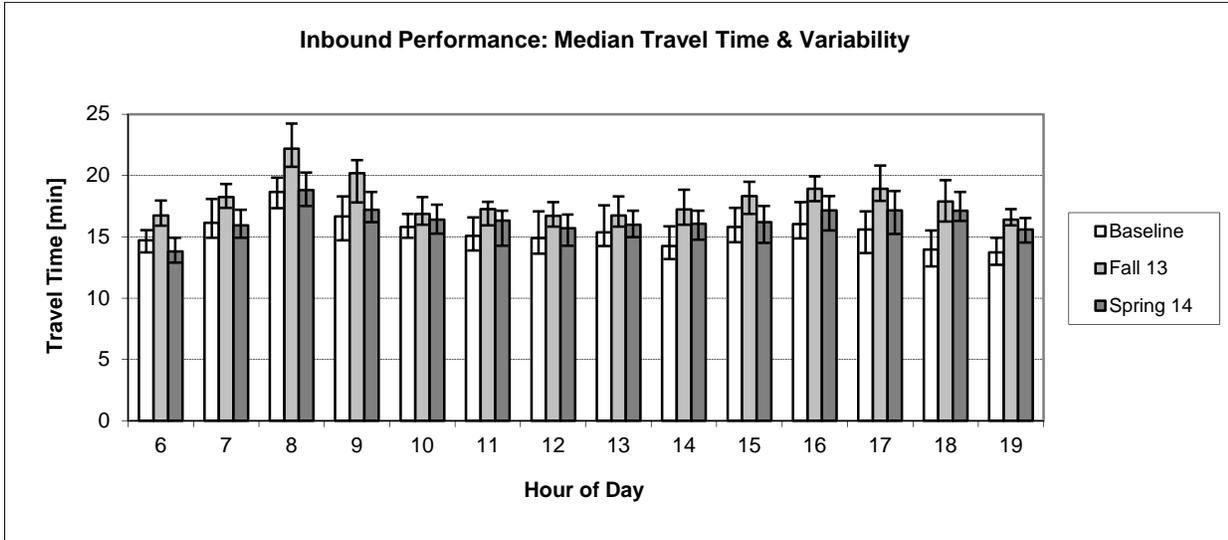
Magnolia Bridge to 1st Ave & Denny Way via Elliott/Western



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL-AVI
Spring 14	5/12/14 - 6/6/14	AVL-AVI

Pathway B.1

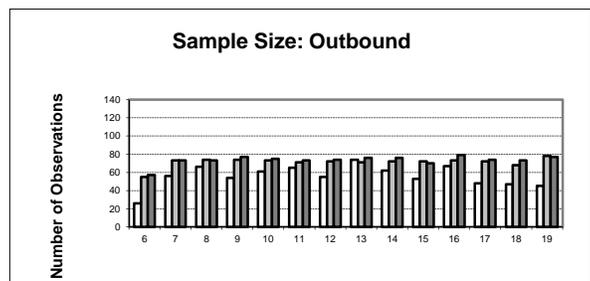
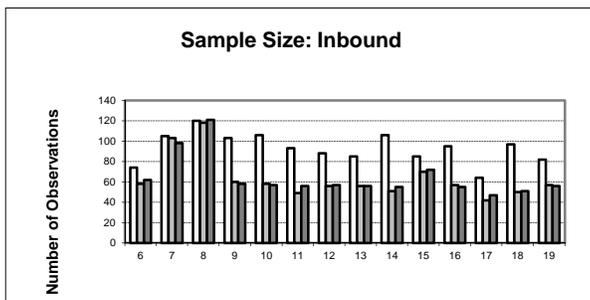
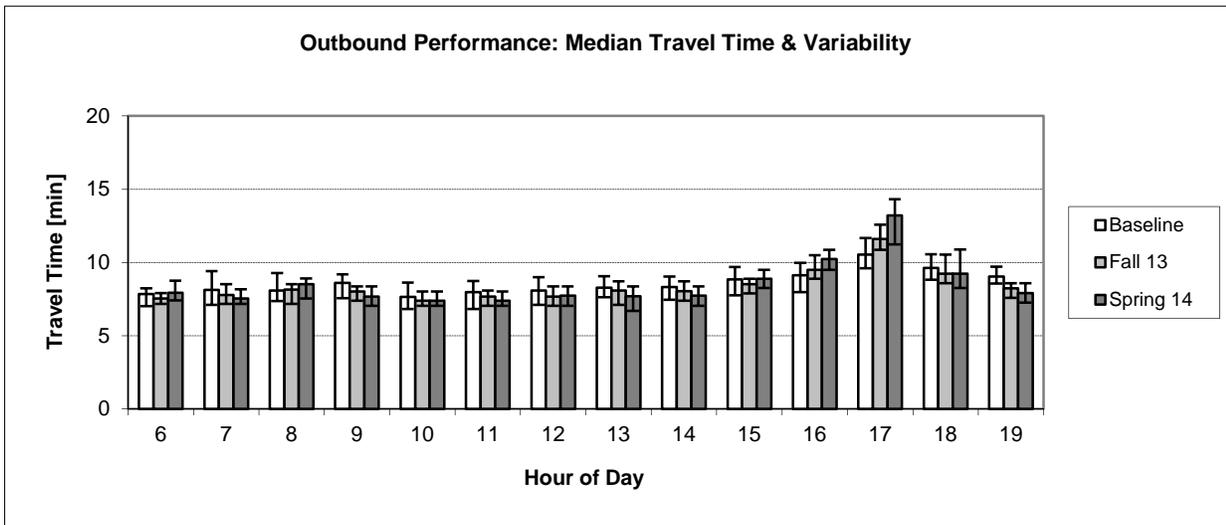
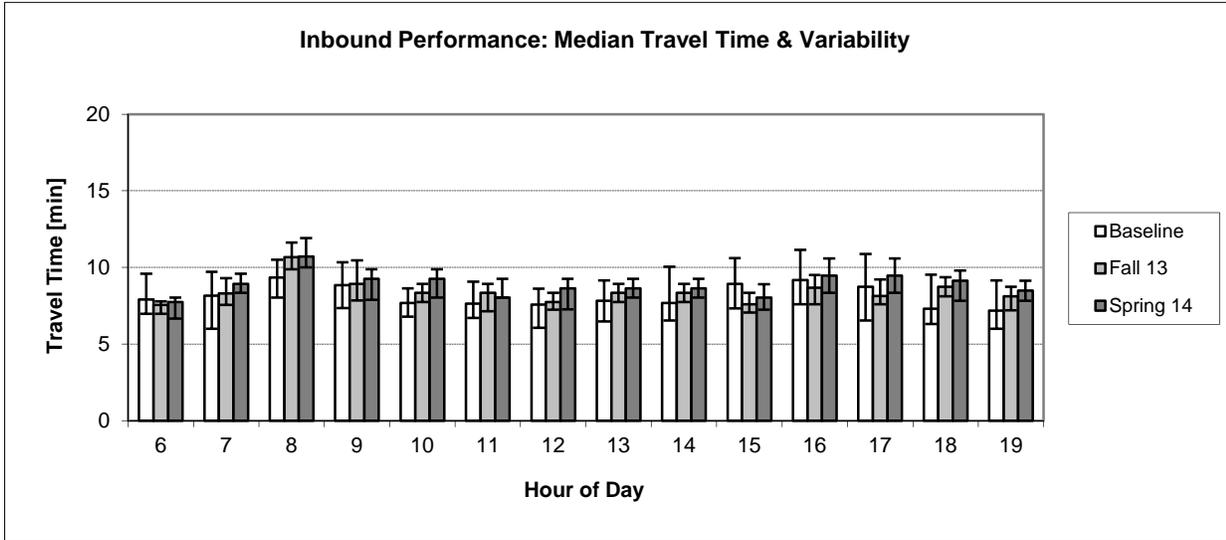
Aurora Ave N & N 85th St to 3rd Ave & Battery St via Aurora Ave



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL
Spring 14	5/12/14 - 6/6/14	AVL

Pathway B.2

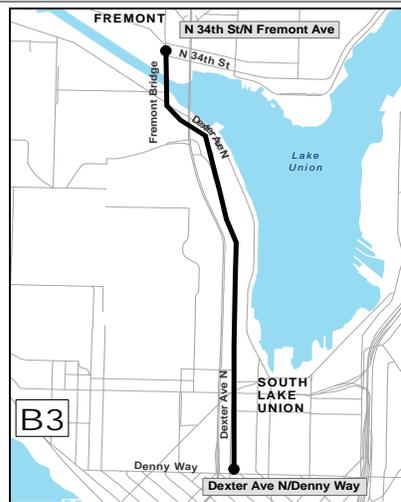
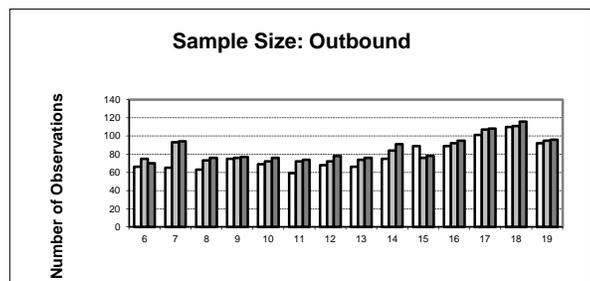
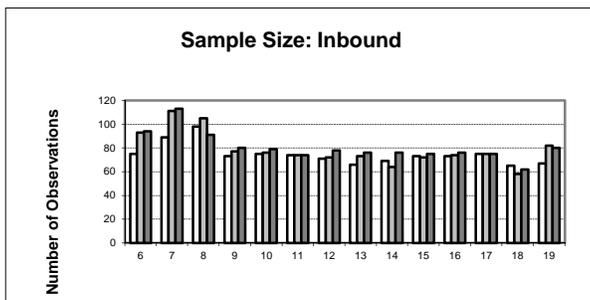
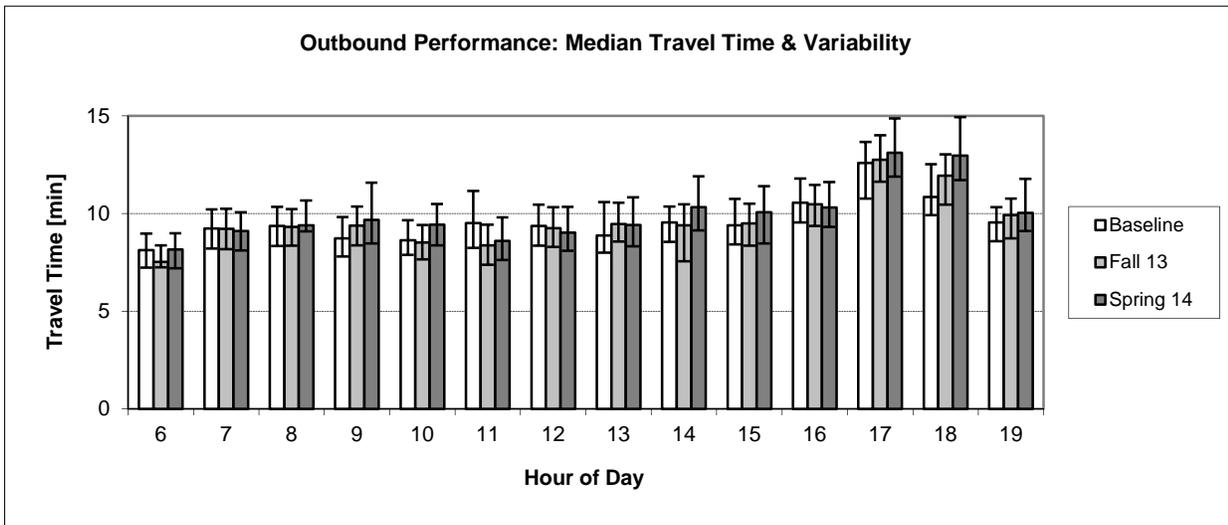
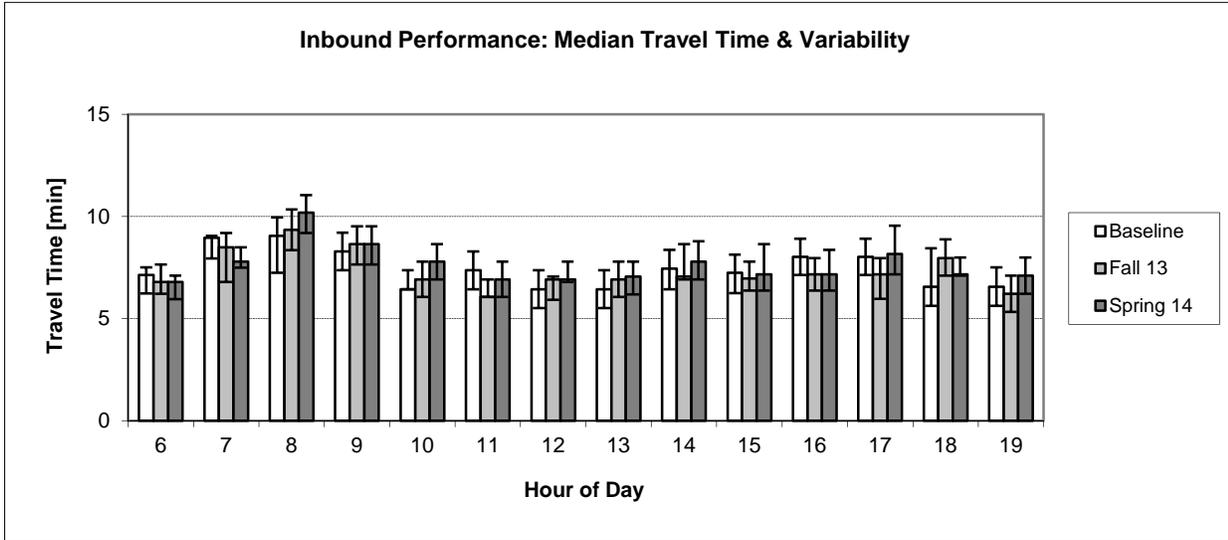
Bridge Way & N 38th St to 3rd Ave & Battery via Aurora Ave



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL
Spring 14	5/12/14 - 6/6/14	AVL

Pathway B.3

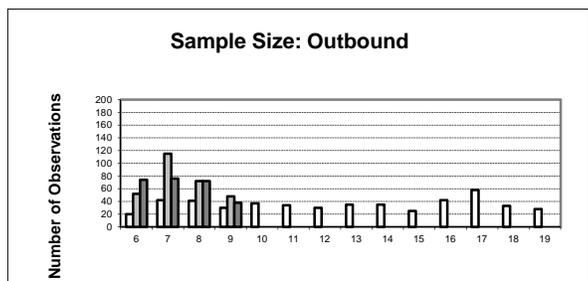
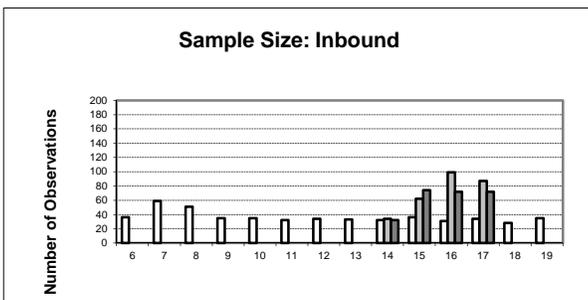
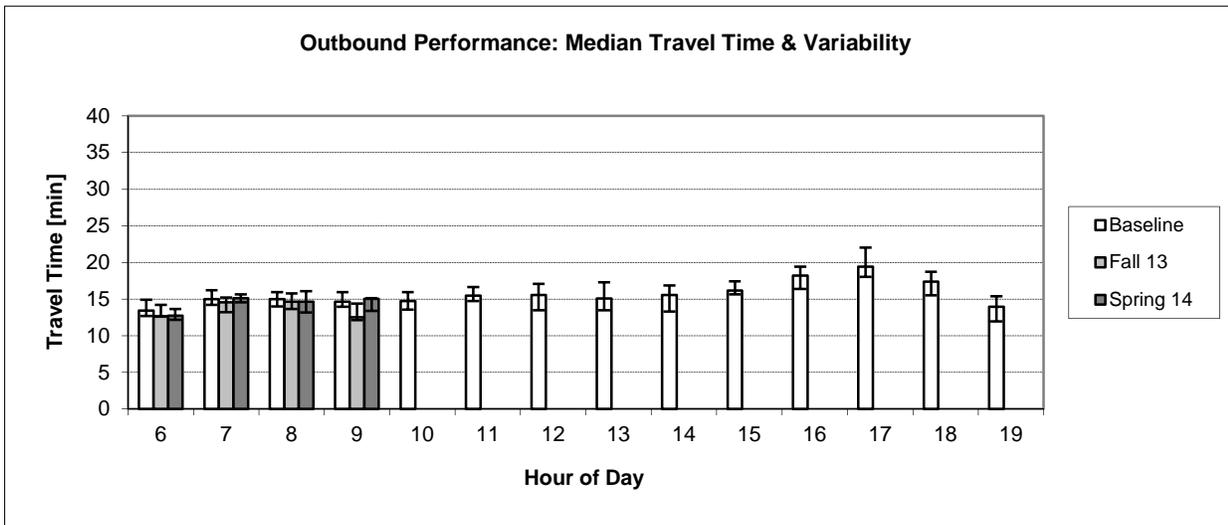
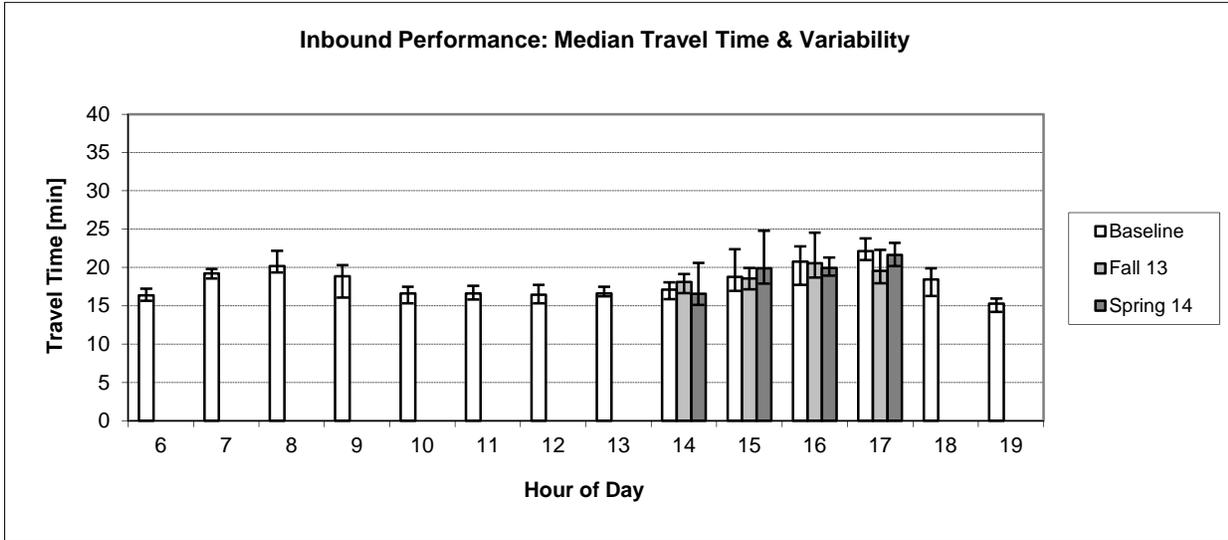
Fremont Ave N & N 34th St to Denny Way & Dexter Ave via Dexter



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 13	1/21/14 - 2/14/14	AVL
Spring 14	5/12/14 - 6/6/14	AVL

Pathway B.4

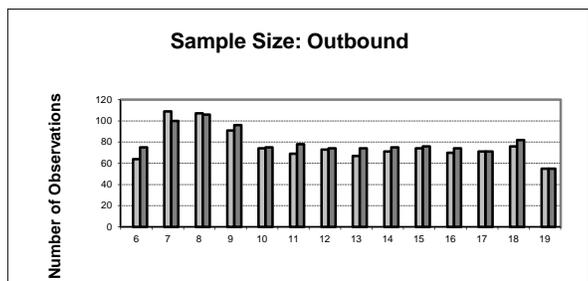
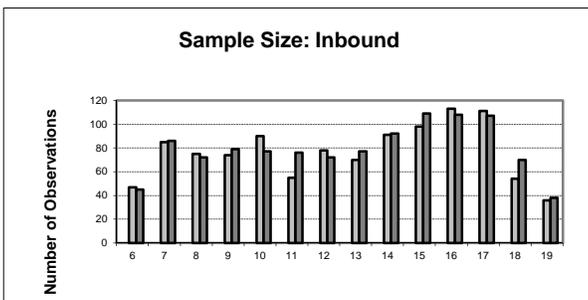
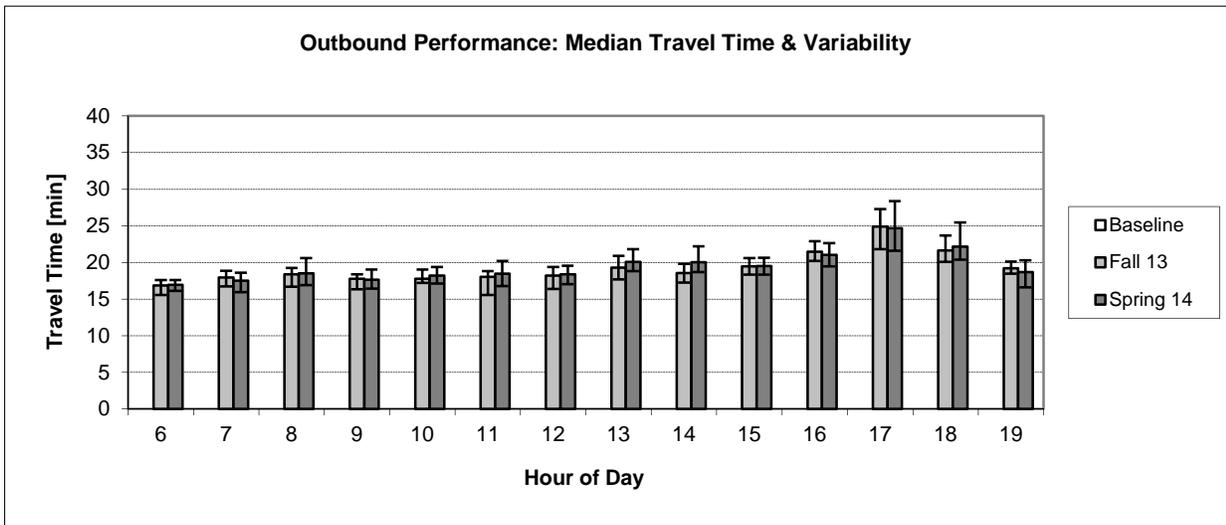
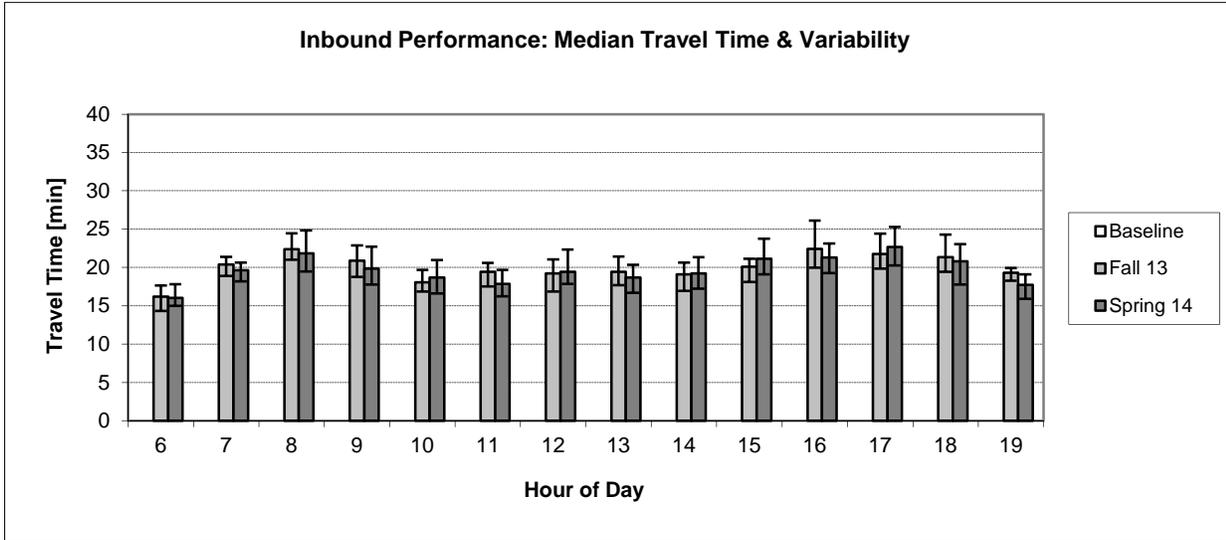
Ballard Bridge to Denny Way & Westlake Ave via Nickerson/Westlake



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL
Fall 13	1/21/14 - 2/14/14	AVL
Spring 14	5/12/14 - 6/6/14	AVL

Pathway B.5

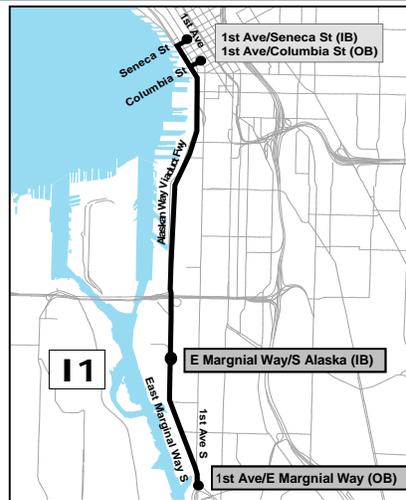
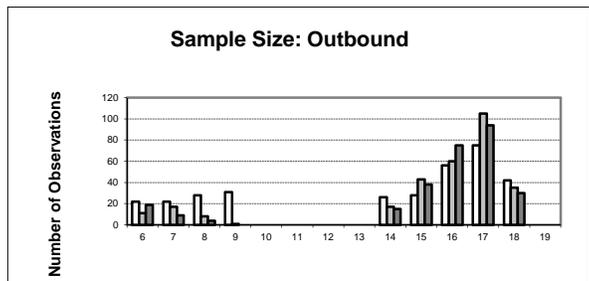
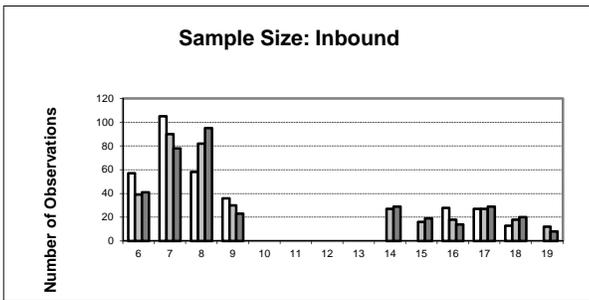
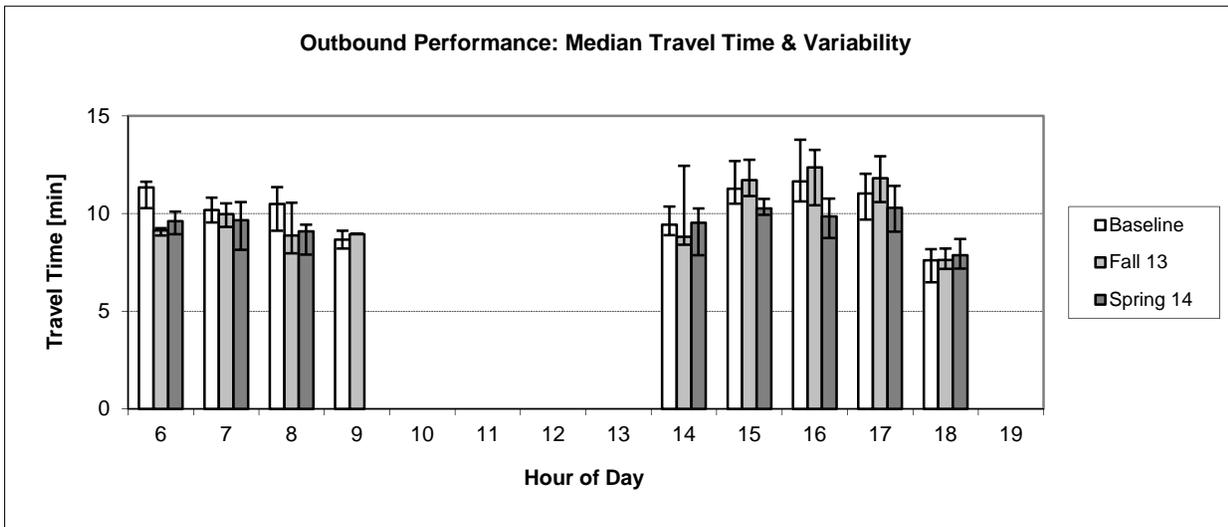
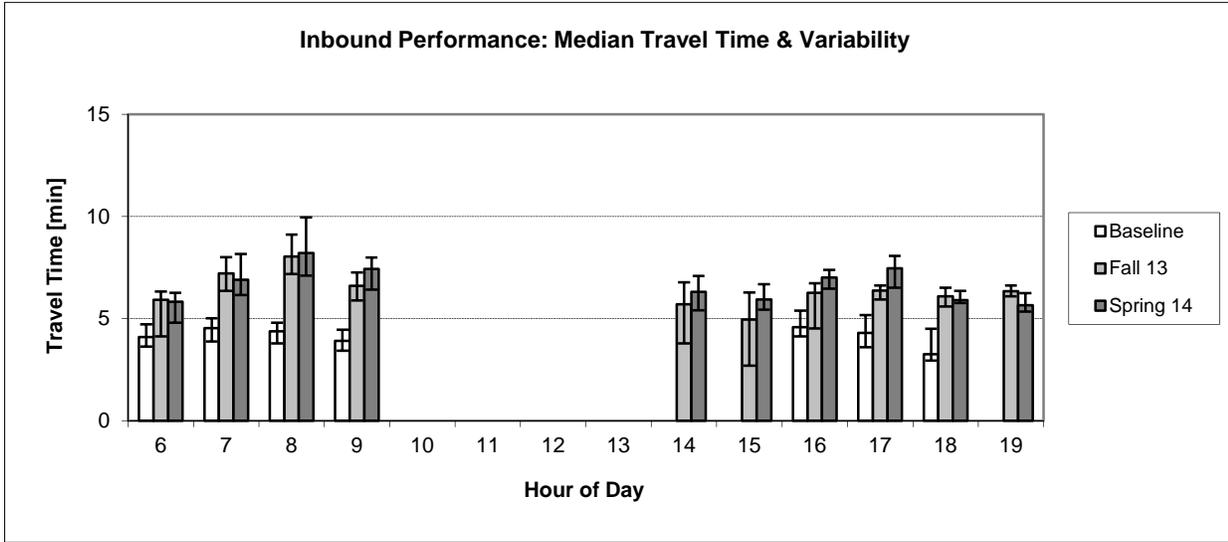
Westlake Ave/9th Ave & Denny Way to Leary Way & 15th Ave NW via Westlake Ave



Scenario	Date Range	Data source
Baseline	Pathway was not used	N/A
Fall 13	1/21/14 - 2/14/14	AVL
Spring 14	5/12/14 - 6/6/14	AVL

Pathway I.1

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



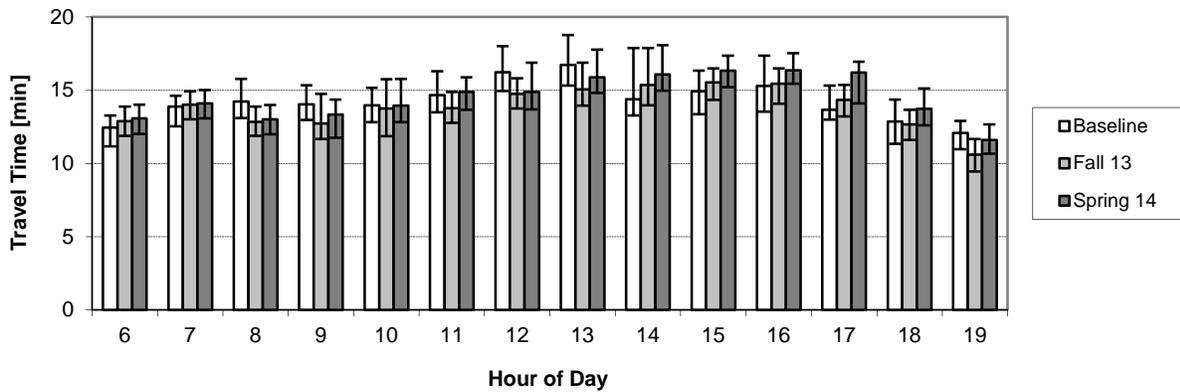
Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL-AVI
Spring 14	5/12/14 - 6/6/14	AVL-AVI

Pathway I.2

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

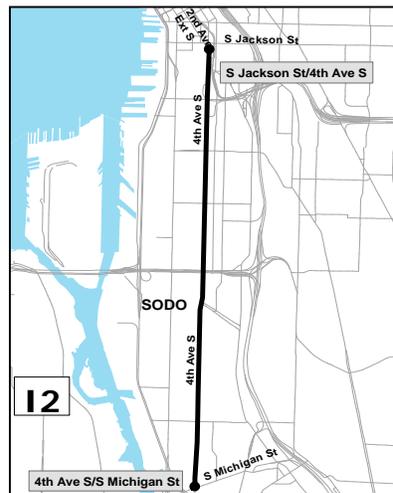
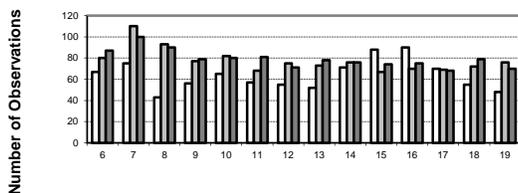
DATA NOT AVAILABLE

Outbound Performance: Median Travel Time & Variability



DATA NOT AVAILABLE

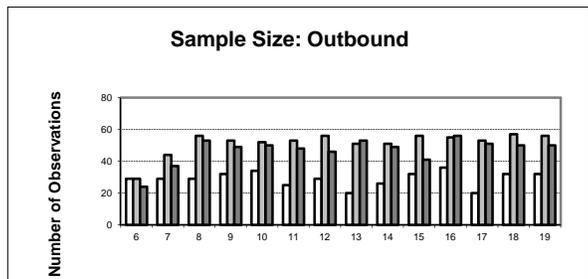
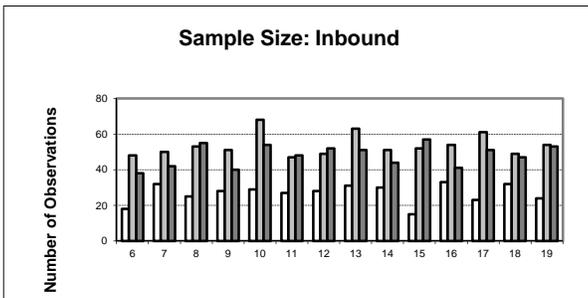
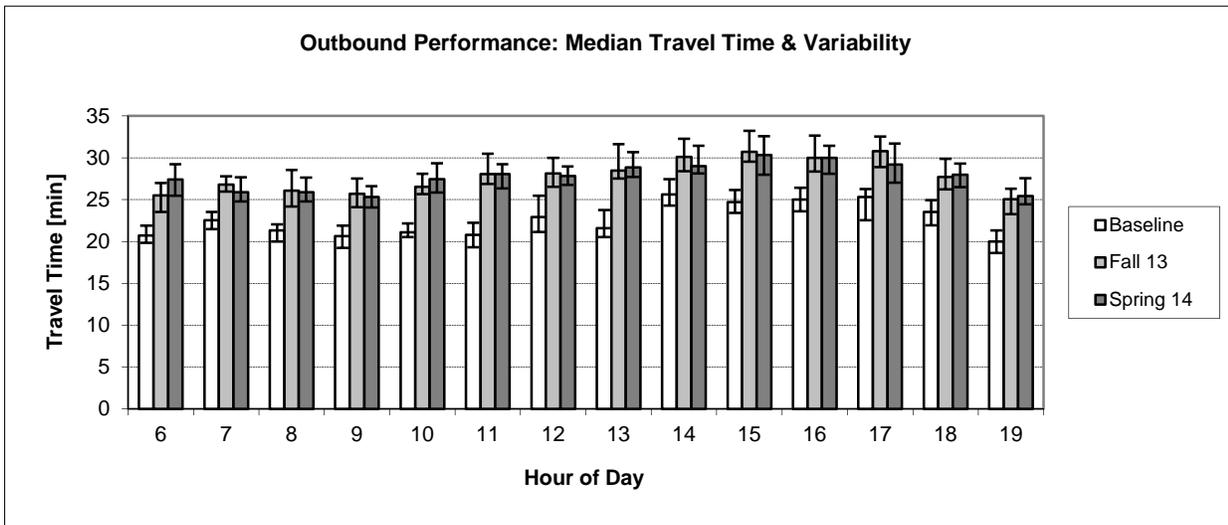
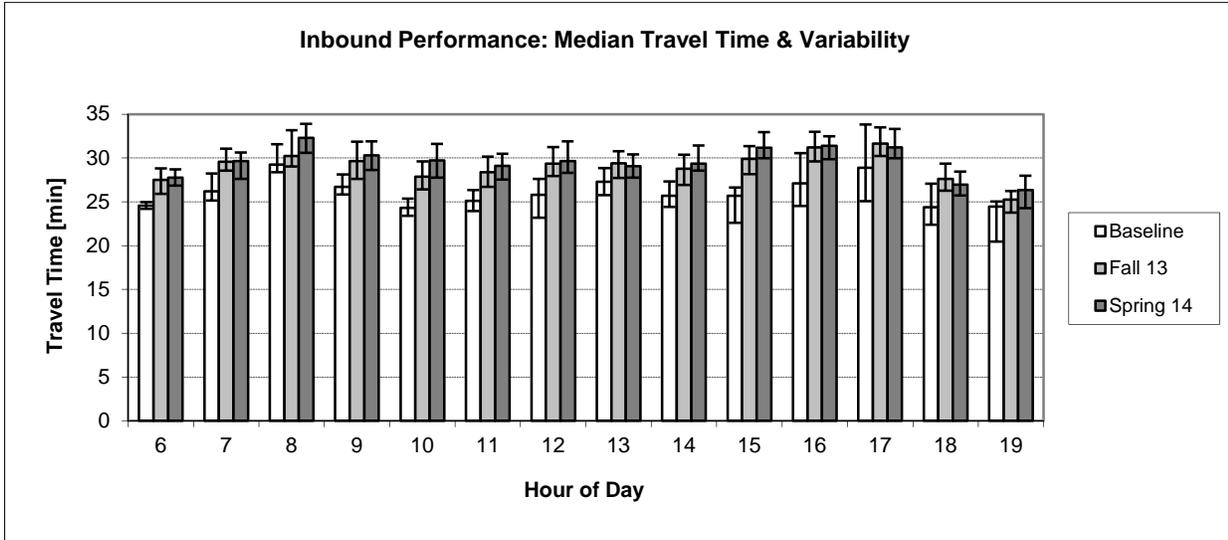
Sample Size: Outbound



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL-AVI
Spring 14	5/12/14 - 6/6/14	AVL

Pathway J.2

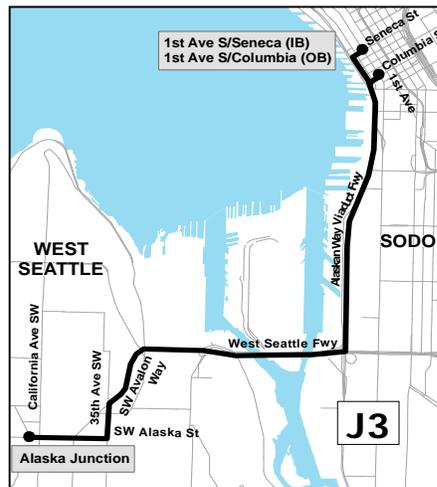
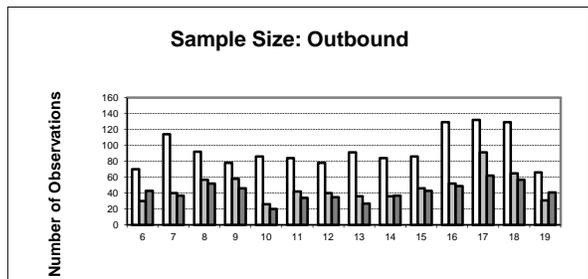
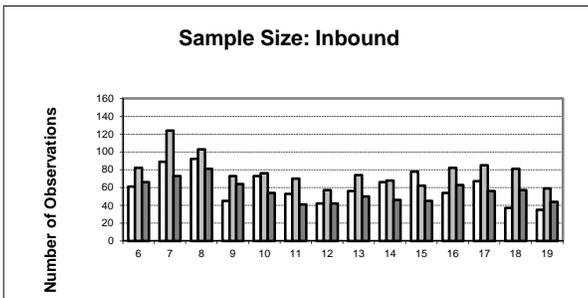
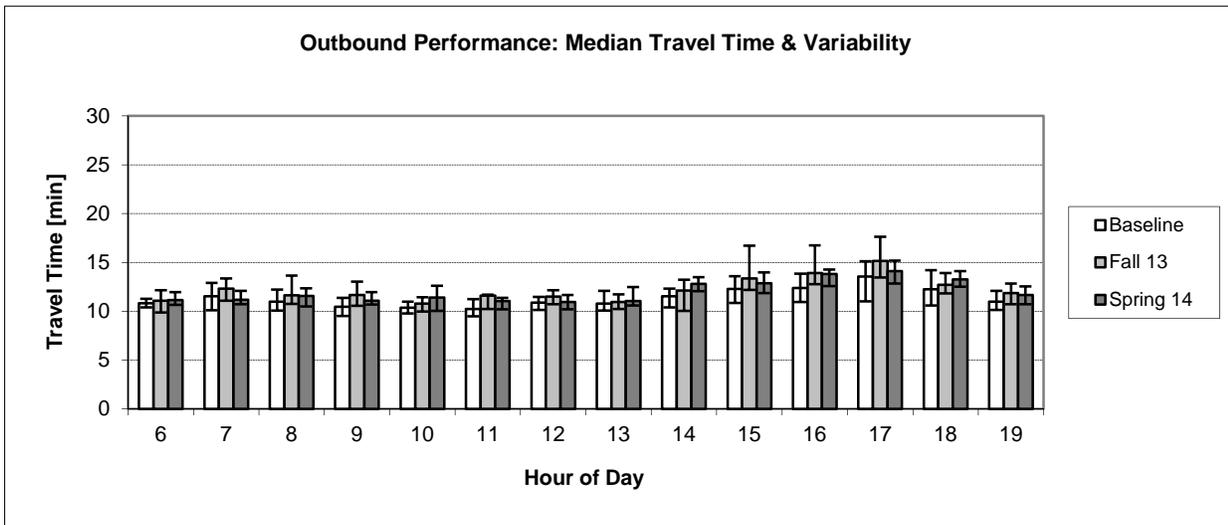
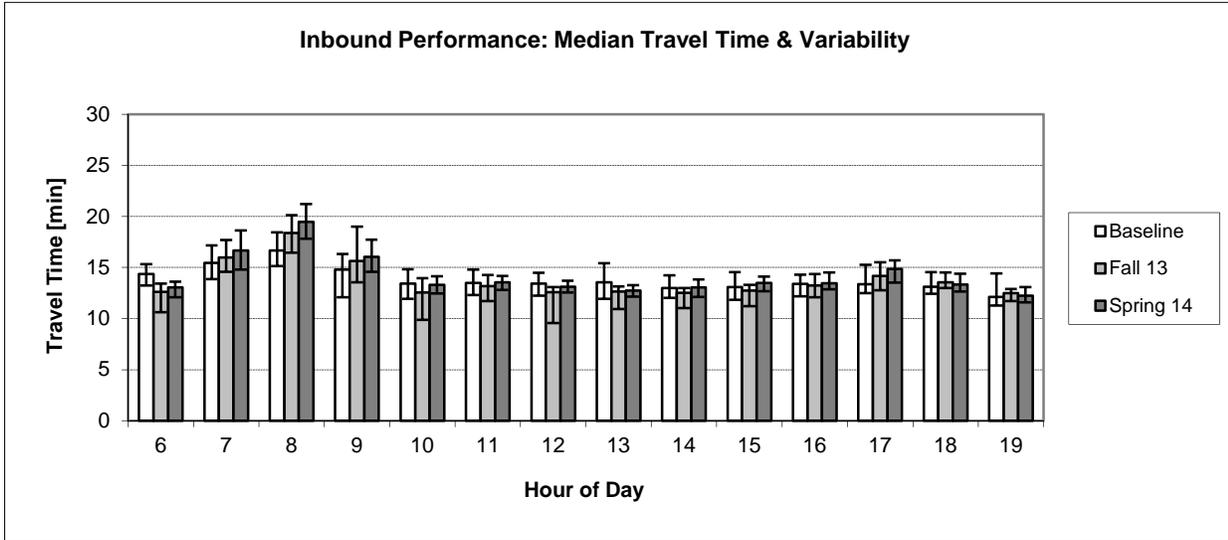
35th Ave SW & SW Morgan St to 3rd Ave & Seneca St via 1st Ave S



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL-AVI
Spring 14	5/12/14 - 6/6/14	AVL-AVI

Pathway J.3

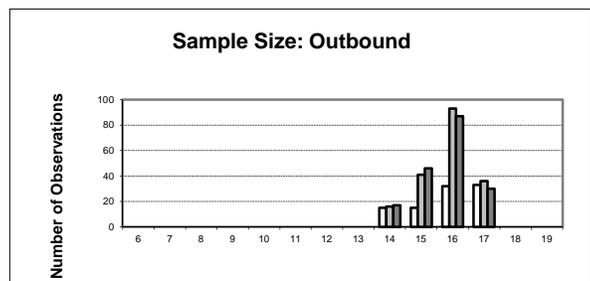
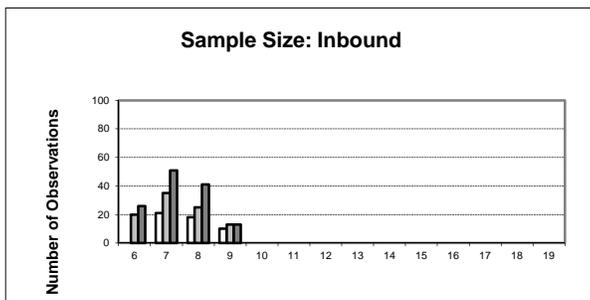
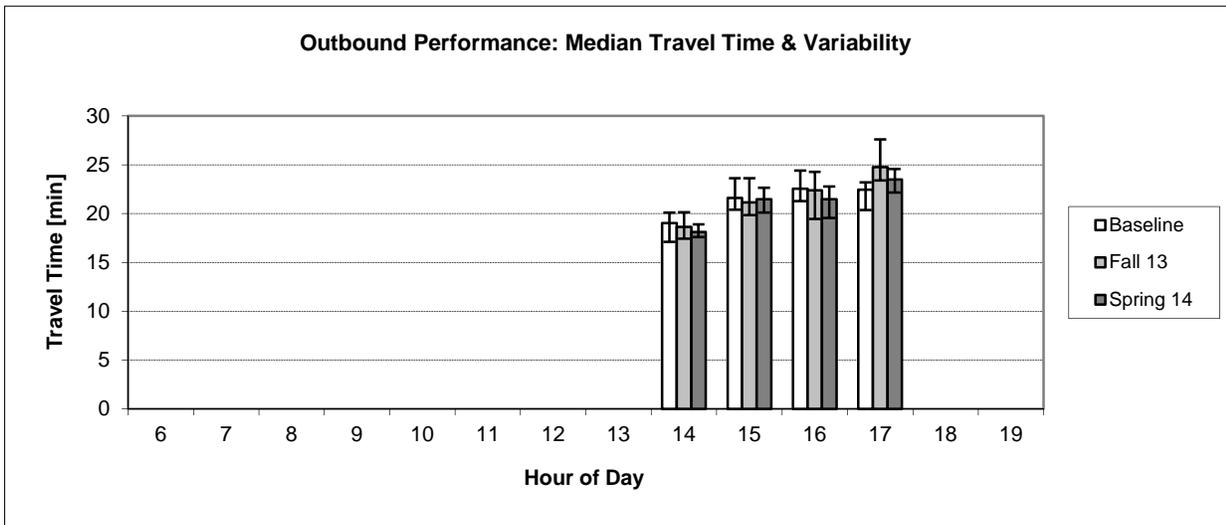
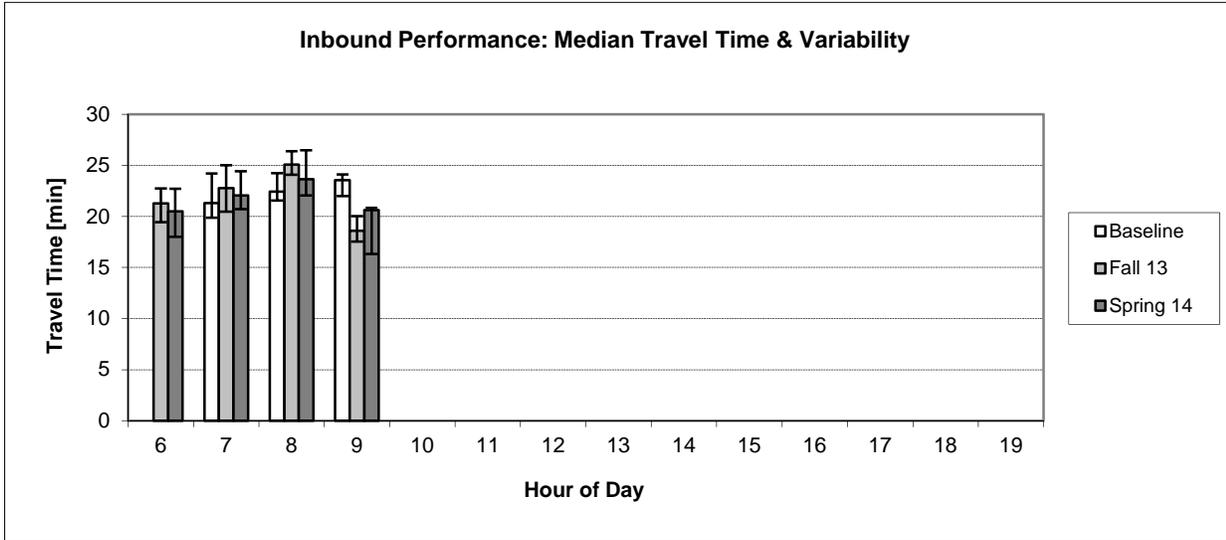
Alaska Junction to 1st Ave & Seneca/Columbia St via Alaskan Way Viaduct



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	TSP-AVI
Spring 14	5/12/14 - 6/6/14	TSP-AVI

Pathway J.4

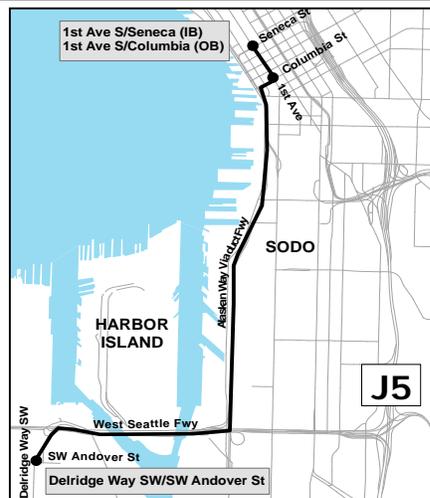
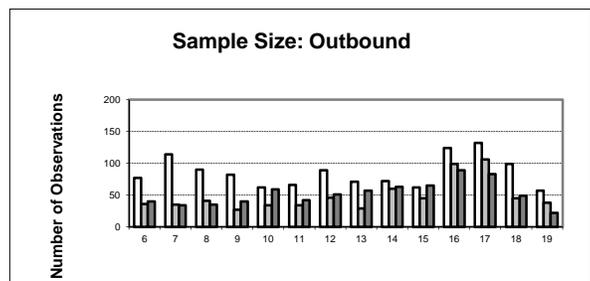
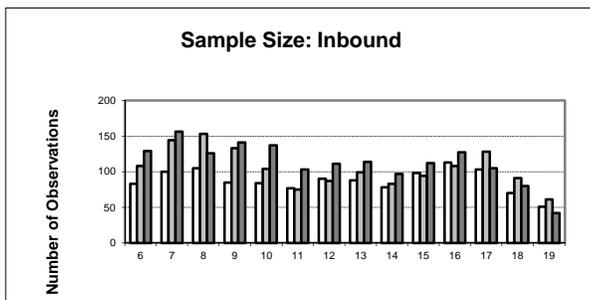
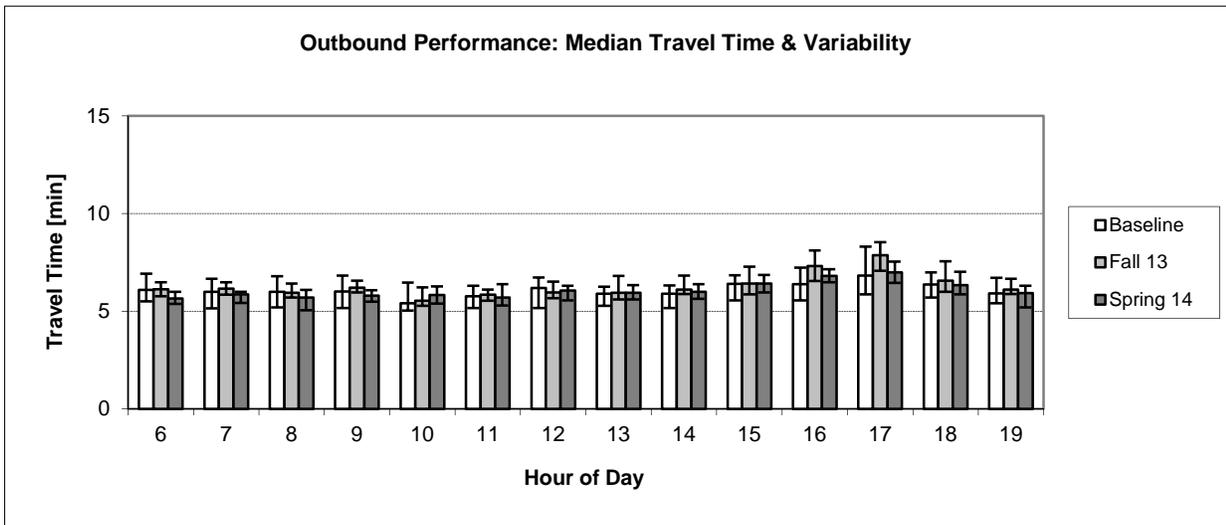
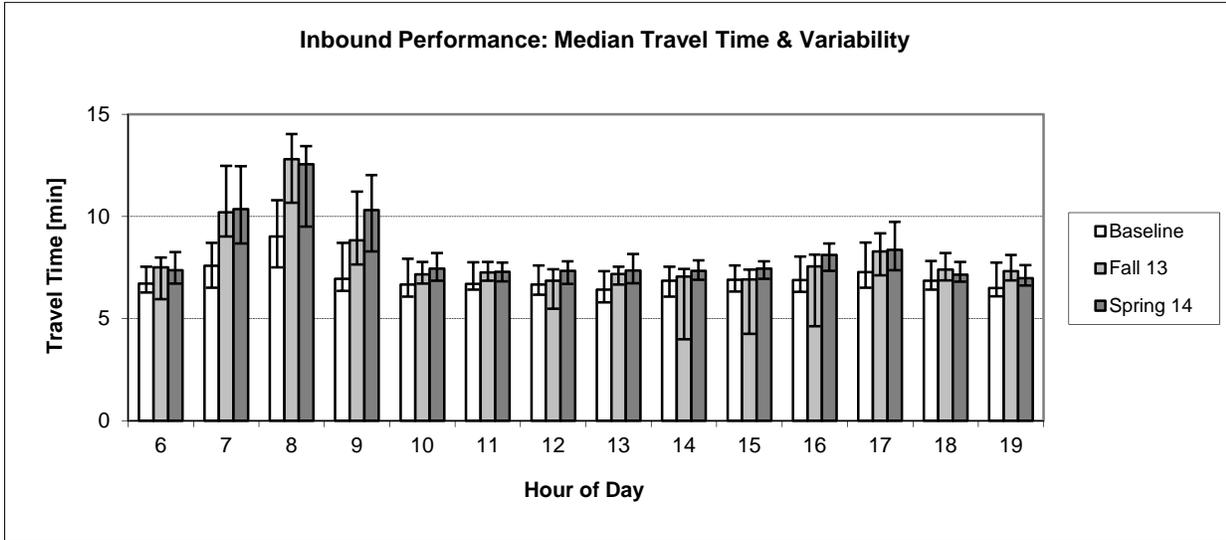
California Ave SW & SW Fauntleroy Way SW to 3rd Ave & Yesler St via 1st Ave S (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVL-AVI
Fall 13	1/21/14 - 2/14/14	AVL-AVI
Spring 14	5/12/14 - 6/6/14	AVL-AVI

Pathway J.5

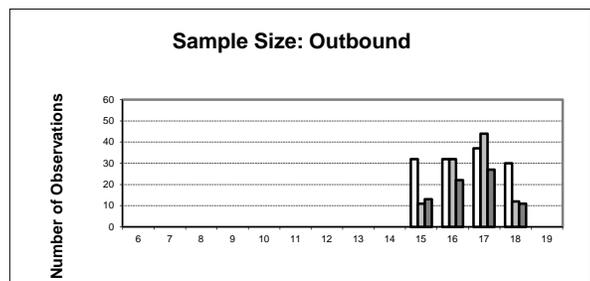
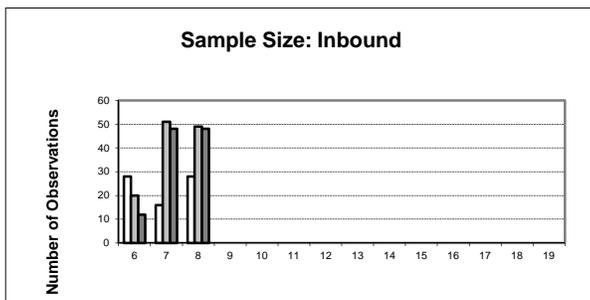
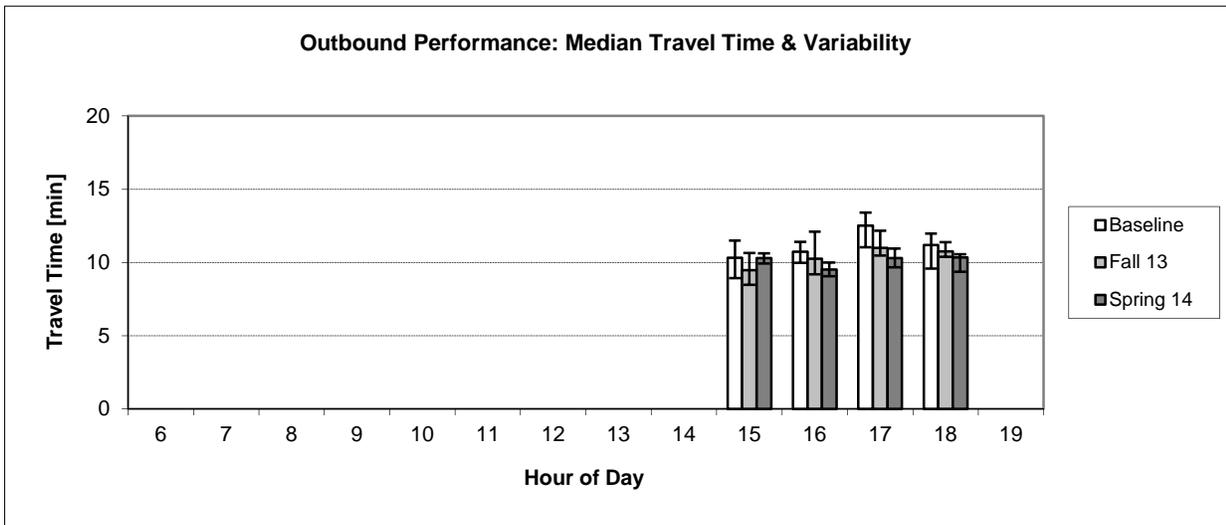
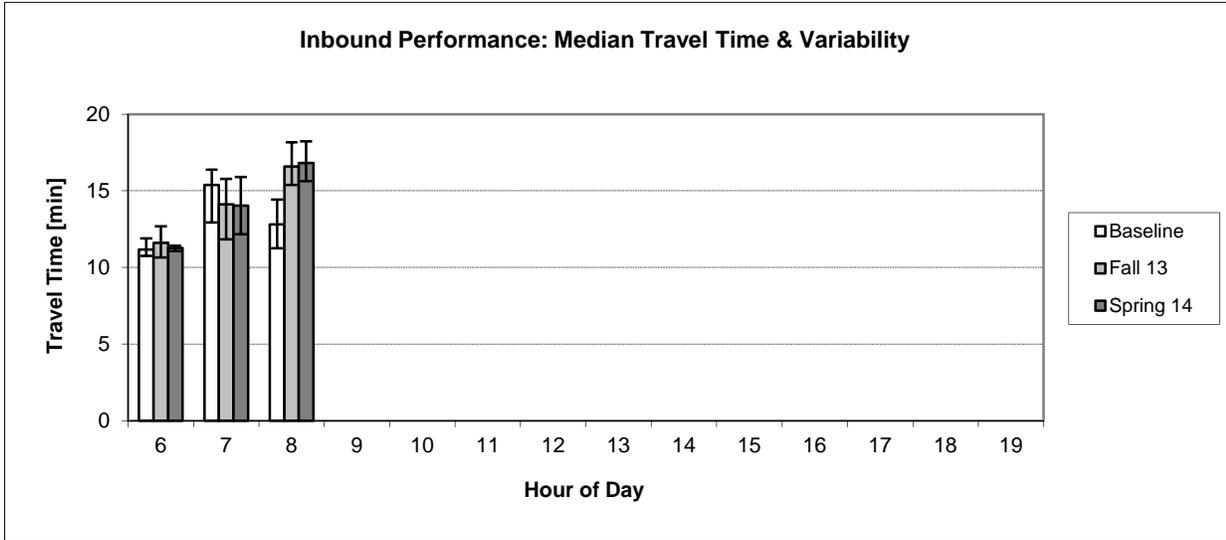
Delridge Way SW & SW Andover St to 1st Ave & Seneca/Columbia St via AWW



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	AVI
Spring 14	5/12/14 - 6/6/14	AVI

Pathway J.7

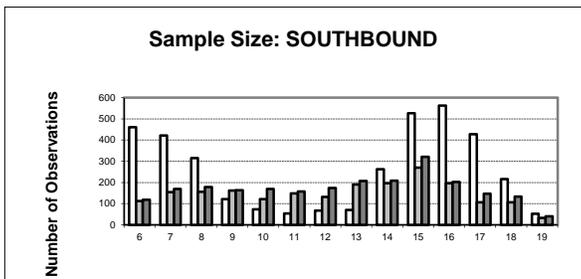
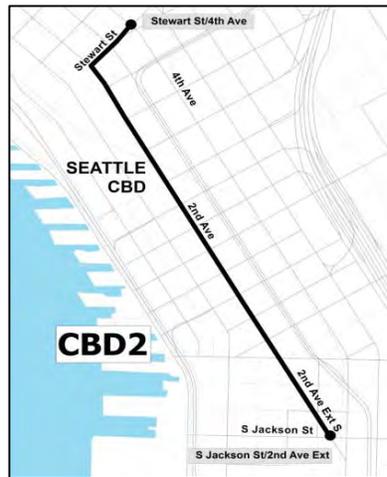
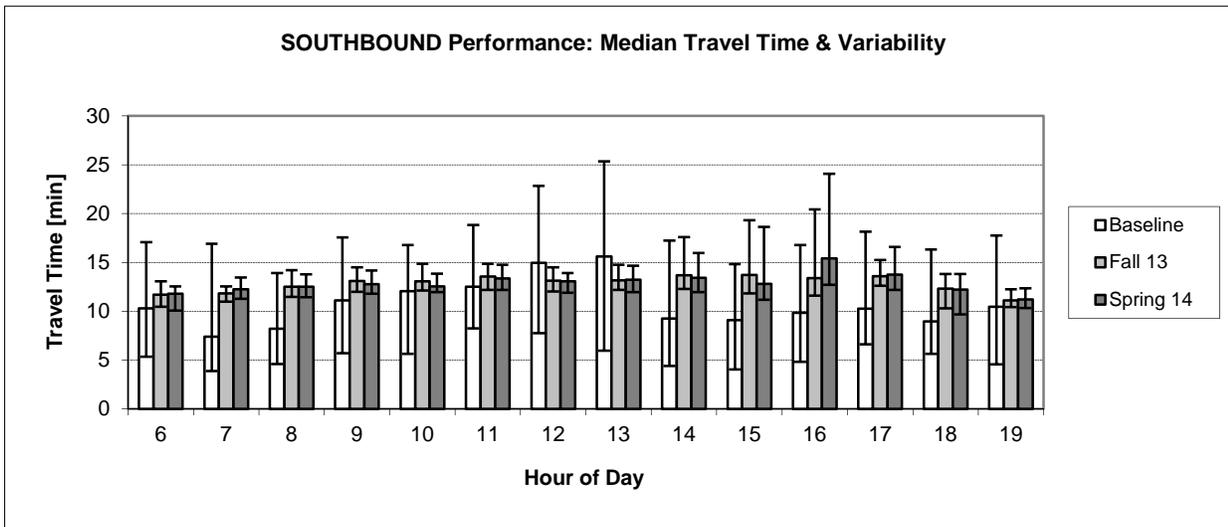
Admiral Way SW & California Ave SW to 1st Ave & Seneca/Columbia St via AWV (Peak Only)



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI-AVL
Fall 13	1/21/14 - 2/14/14	AVI-AVL
Spring 14	5/12/14 - 6/6/14	AVI-AVL

Pathway CBD2

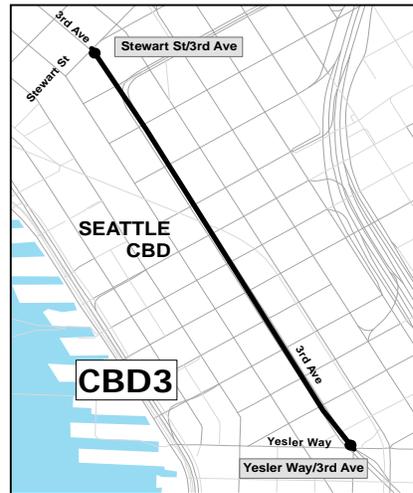
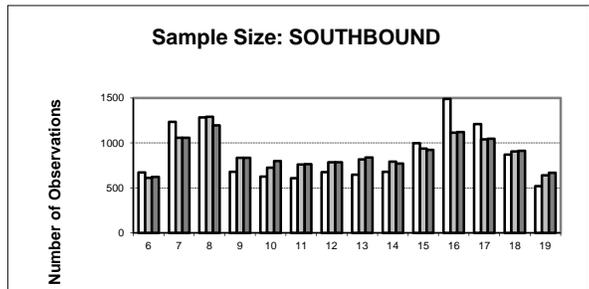
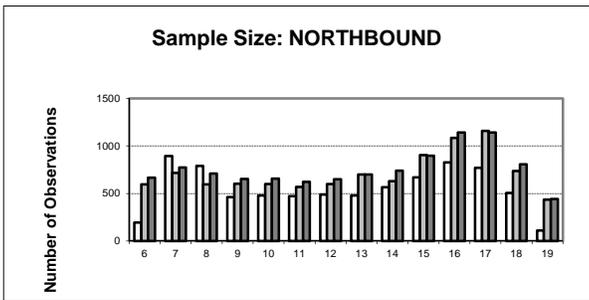
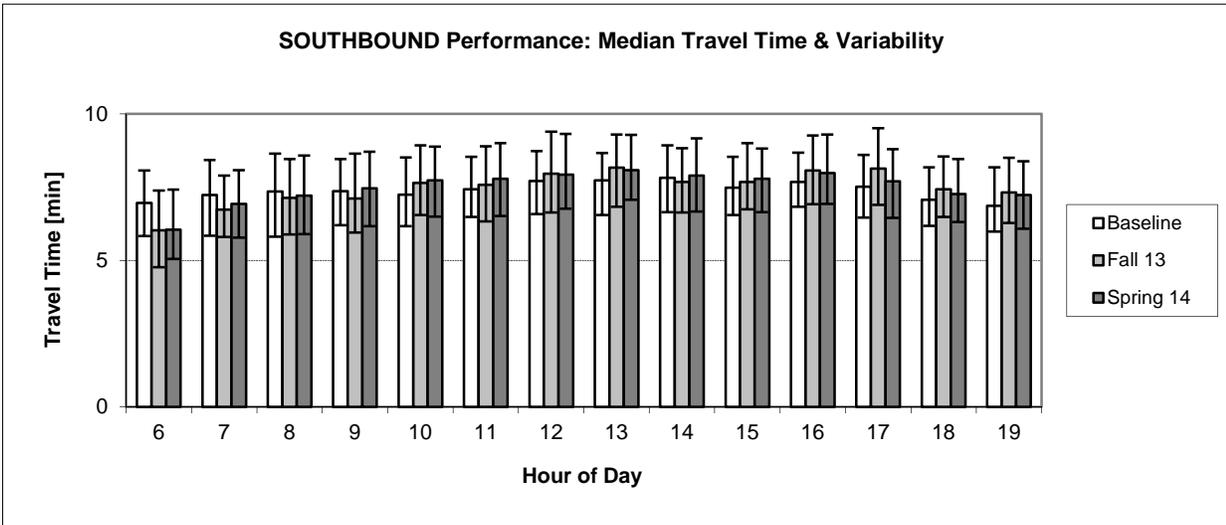
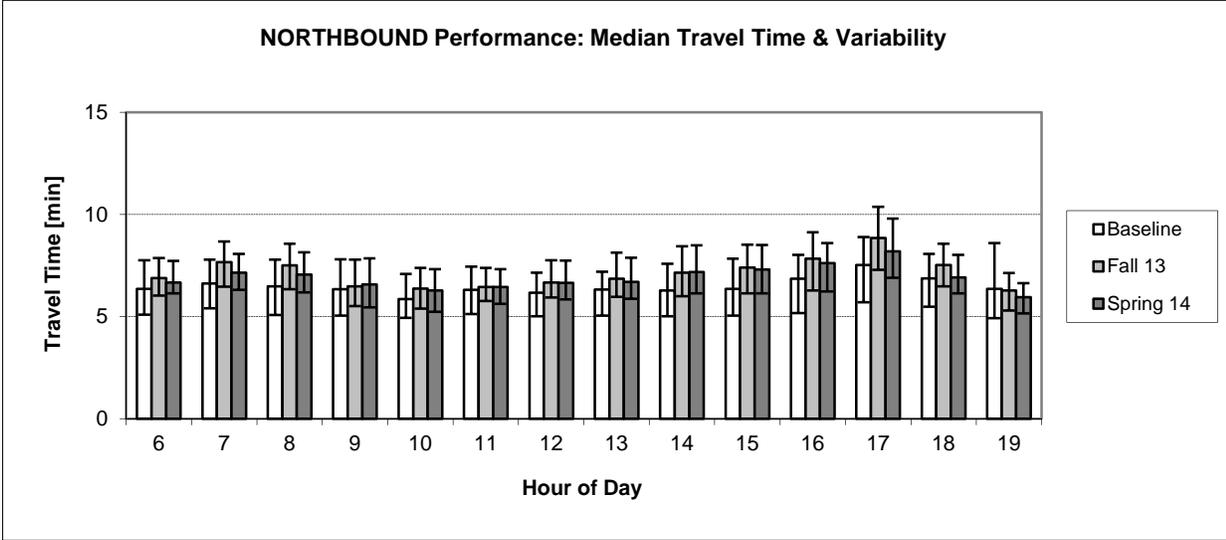
Second Avenue: Pike St to Jackson St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	AVI
Spring 14	5/12/14 - 6/6/14	AVI-AVL

Pathway CBD3

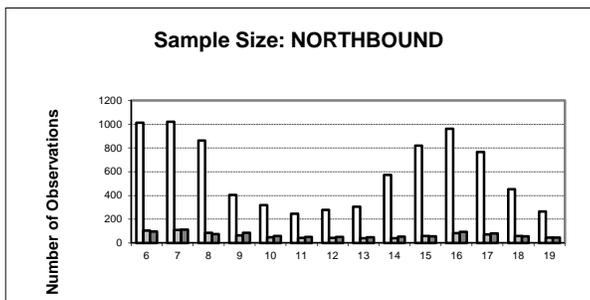
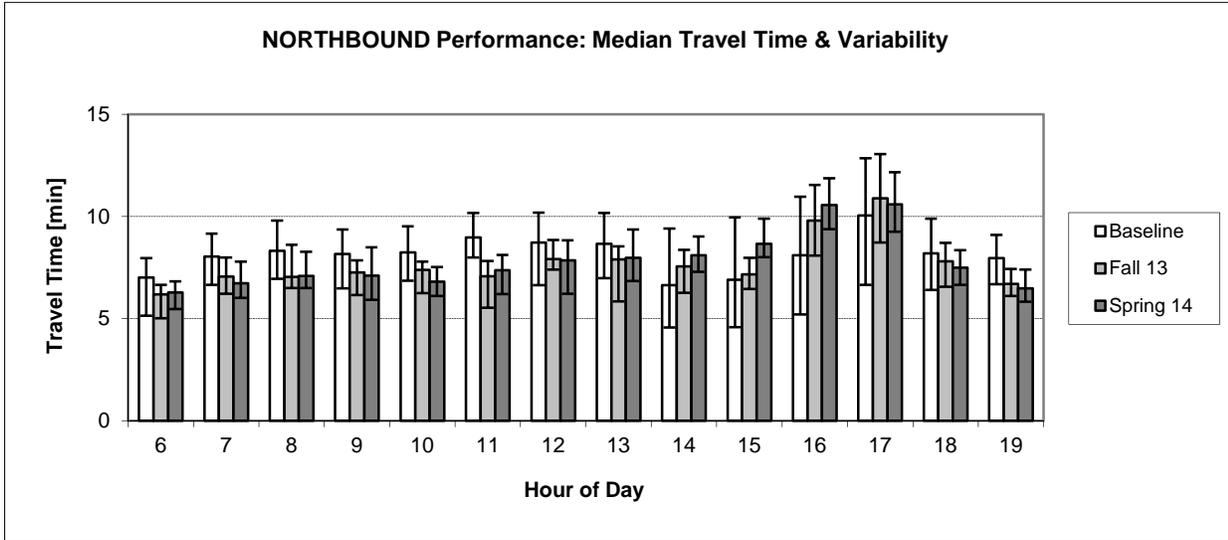
Third Ave: Stewart St to Yesler Way



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	AVI
Spring 14	5/12/14 - 6/6/14	AVI

Pathway CBD4

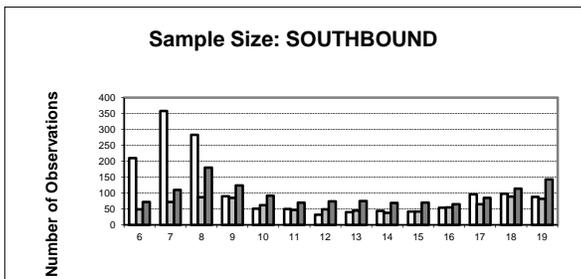
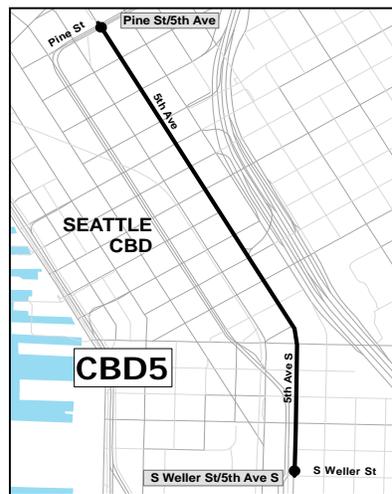
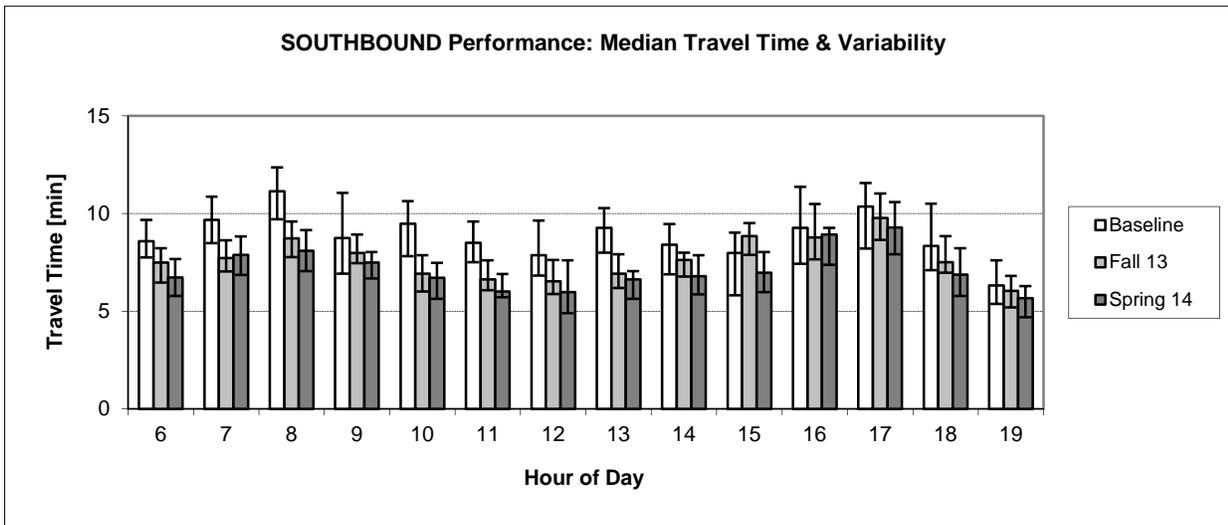
Fourth Ave: Jackson St to Stewart St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	AVI
Spring 14	5/12/14 - 6/6/14	AVI-AVL

Pathway CBD5

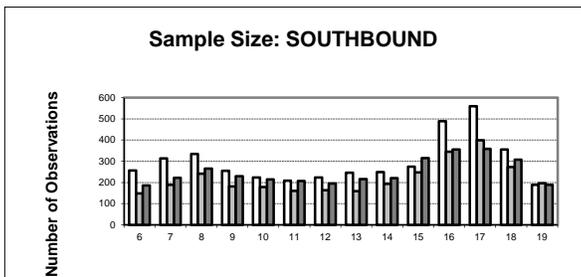
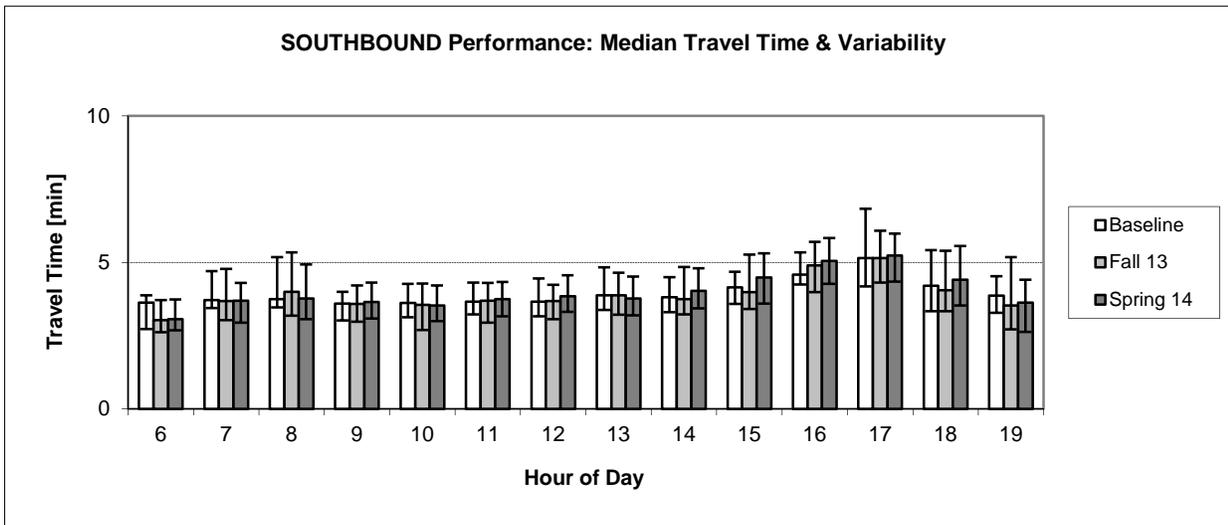
Fifth Ave: Pine St to Weller St



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	AVI
Spring 14	5/12/14 - 6/6/14	AVI

Pathway Columbia

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



Scenario	Date Range	Data source
Baseline	9/21/09 - 10/16/09	AVI
Fall 13	1/21/14 - 2/14/14	AVI
Spring 14	5/12/14 - 6/6/14	AVI