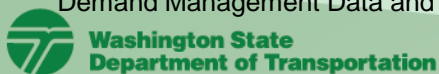


Overview of Statewide CTR Program Performance - 2007 through 2012 - Final

Kathy Leotta

Demand Management Data and Evaluation Manager



CTR Board Meeting

WSDOT HQ Olympia

May 31, 2013

Summary of Results

Key Findings:

- Goals for CTR program 2007/8 to 2011/12 :
 - Decrease drive alone rate by 10 percent
 - Decrease VMT/employee by 13 percent
- Performance CTR program 2007/8 to 2011/12:
 - Drive alone rate decreased by 3.8 percent (if fill-in applied, increased by 3.9 percent)
 - VMT/employee decreased by 5.7 percent (if fill-in applied, decreased by 2.6 percent)
- Drive alone rates increased in 2011/12, compared to 2009/10; VMT rates decreases slightly.
- Jurisdictions will be asked to offer their assessments of jurisdiction level results on the CTR Board webpage.
- The program is challenged by declining survey response rates in some jurisdictions.

Summary of Results, Continued

5.7 percent VMT reduction from 2007/8 baseline results in:

- Nearly 720,000 VMT reduced daily; nearly 180 million VMT reduced annually.
- More than 8.7 million gallons of gasoline reduced annually, saving commuters over \$33 million.
- About 80,000 metric tons of GHG reduced annually.
- Potential savings in pavement costs by reducing roadway capacity and maintenance needs:
 - WSDOT 2011 traffic data indicates 898 VMT/day per lane mile in 2011.
 - Annual cost per lane mile of pavement maintenance, rehabilitation, and reconstruction assumed to be \$15,000 (FHWA data).
 - Reducing daily VMT by 720,000 could reduce pavement related costs by over \$12 million annually.
- What other analysis would be helpful?

Statewide CTR Program Results 2007 through 2012

Drive Alone Rate Change

Survey Year	Total Employees	Survey Response Rate	Drive Alone Rate Without Fill-In Applied		With Fill-In Applied Due to Low Survey Response Rates	
			No Fill Rate	% Change from 2007/8	Fill Rate	% Change from 2007/8
2007/2008	548,010	70.6%	65.7%	NA	65.7%	NA
2009/2010	593,666	64.1%	62.6%	-4.7%	65.1%	-0.8%
2011/2012	612,318	57.9%	63.2%	-3.8%	68.3%	+3.9%

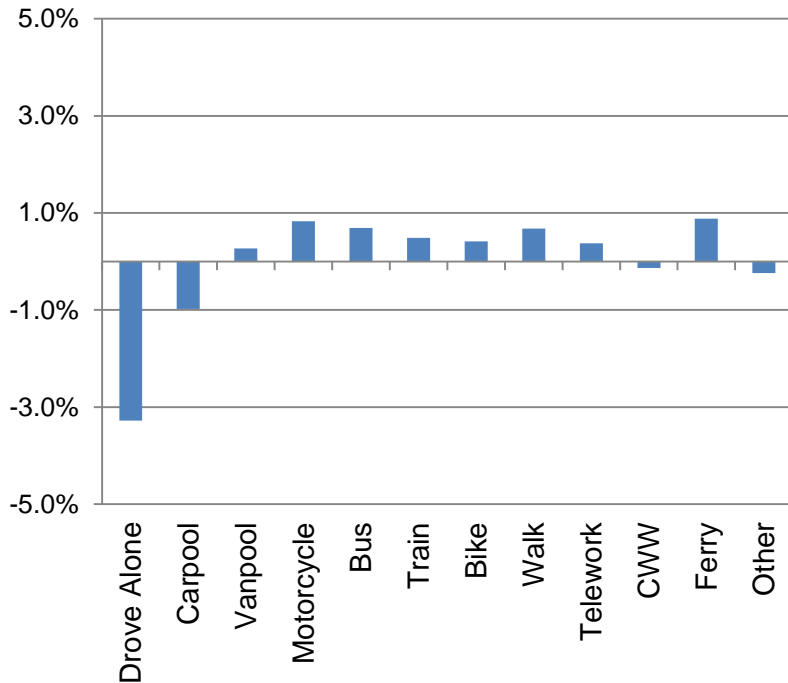
Statewide CTR Program Results 2007 through 2012

VMT Per Employee Rate Change

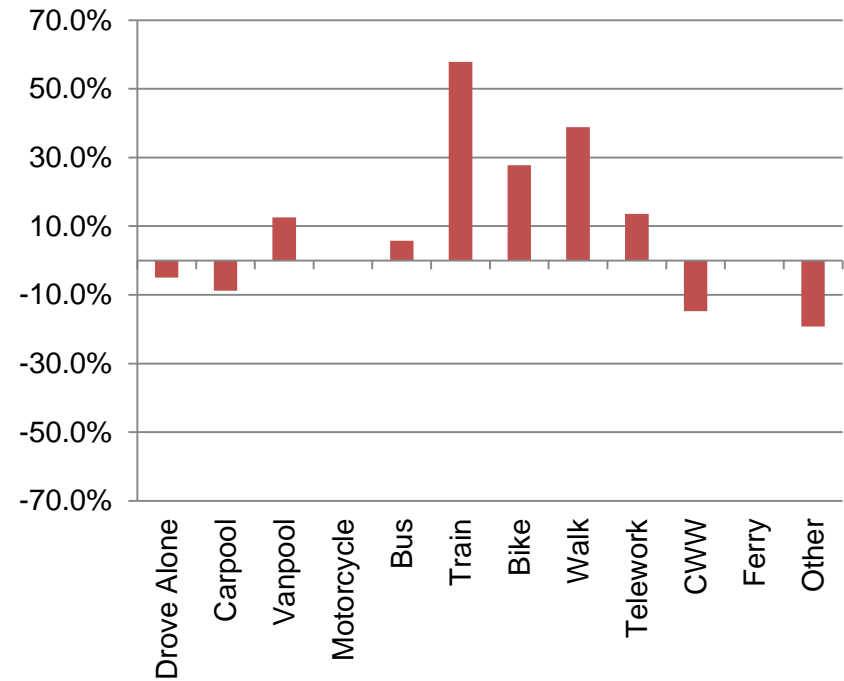
Survey Year	Total Employees	Survey Response Rate	VMT/Employee Without Fill-In Applied		With Fill-In Applied Due to Low Survey Response Rates	
			Rate	% Change from 2007/8	Rate	% Change from 2007/8
2007/2008	548,010	70.6%	11.0	NA	11.0	NA
2009/2010	593,666	64.1%	10.4	-5.4%	10.6	-3.7%
2011/2012	612,318	57.9%	10.3	-5.7%	10.7	-2.6%

Statewide Mode Share Changes

Absolute Change in Mode Share from 2007/8



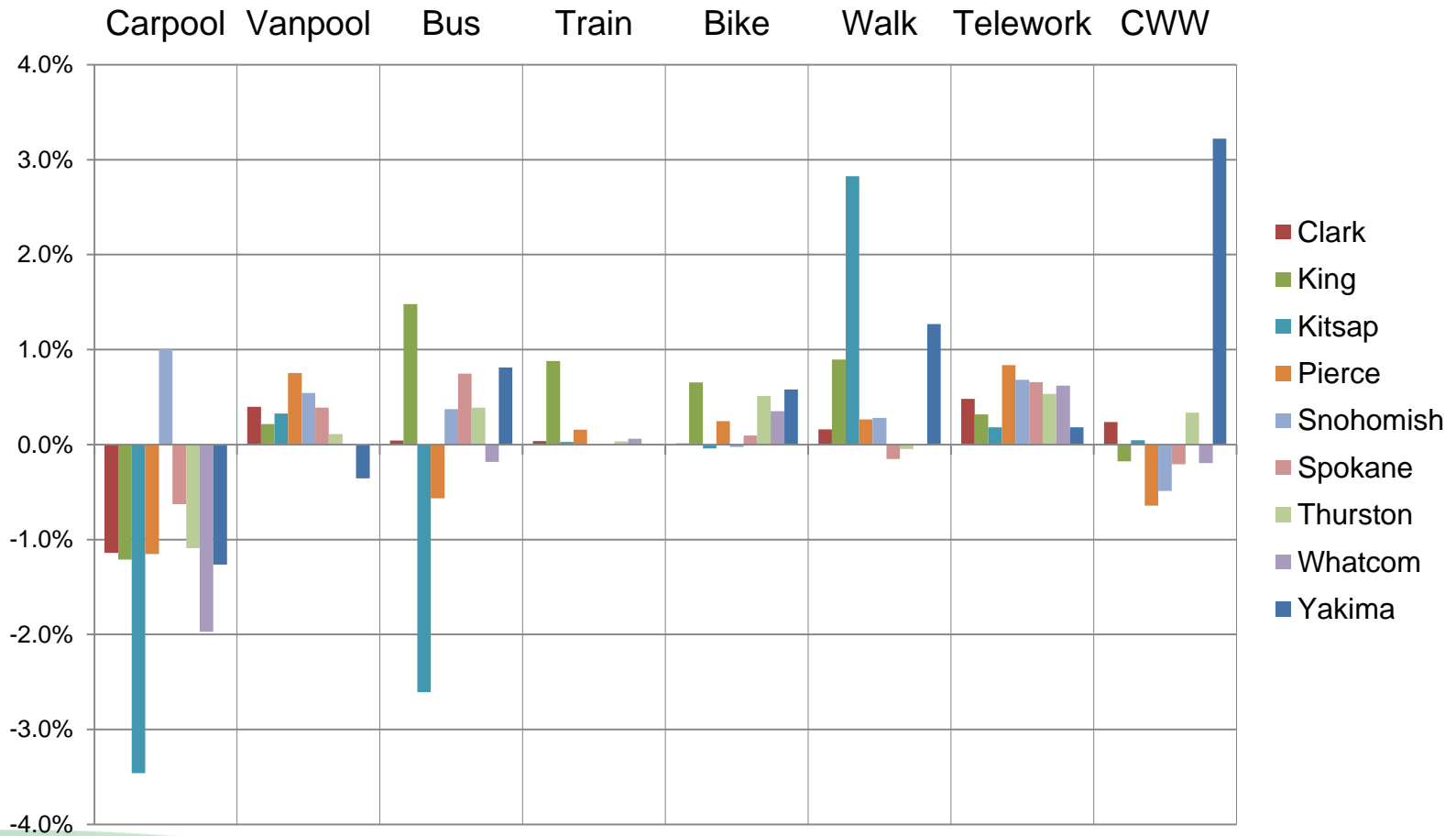
Relative Change in Mode Share from 2007/8



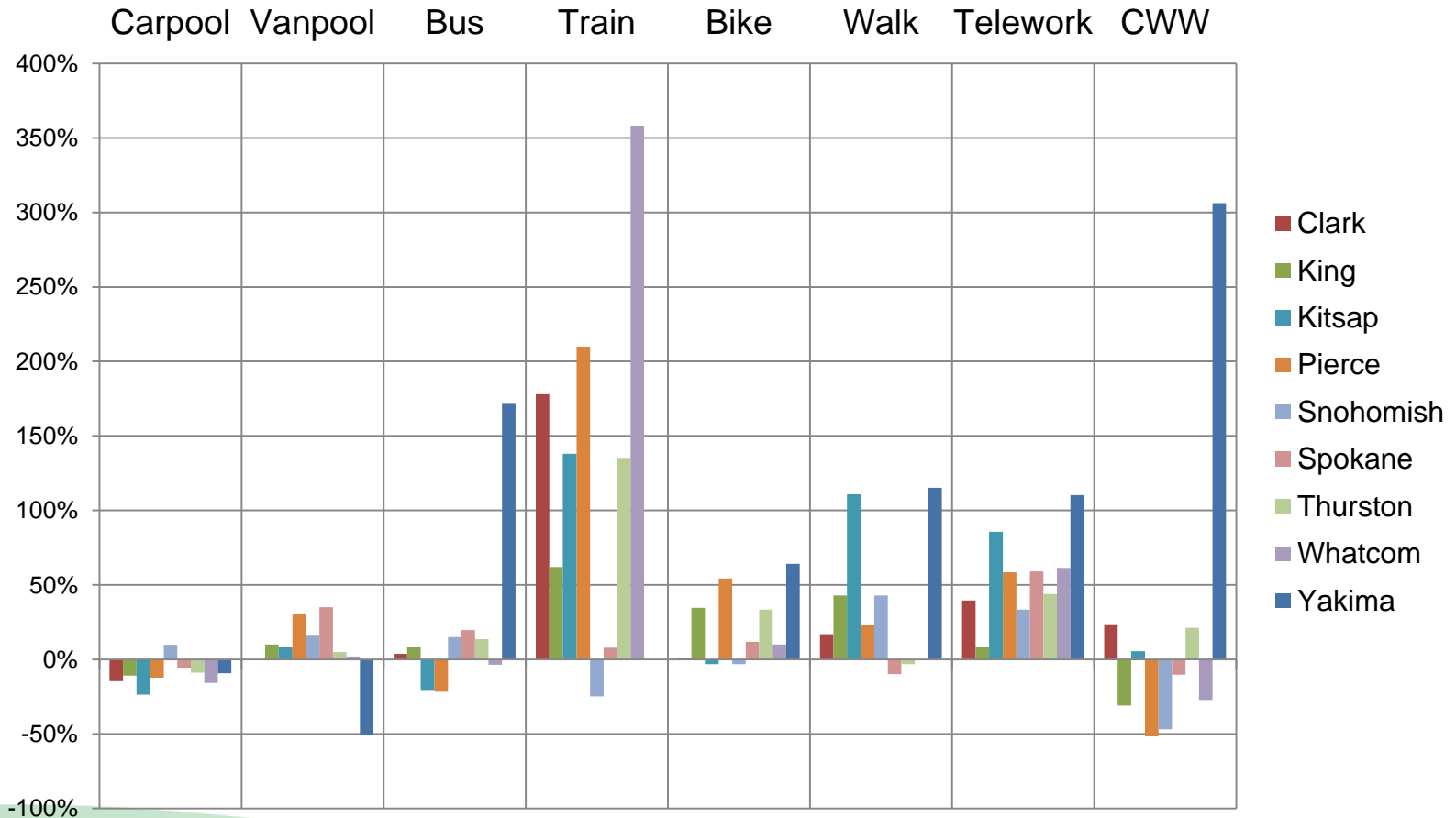
Countywide 2011/12 Change from 2007/8 Baseline

County	Total Employees	Survey Response Rate	2011/12 Drive Alone Rate Percent Change from 2007/8 Baseline		2011/12 VMT Per Employee Rate Change from Baseline	
			Without Fill-In	With Fill-In Applied	Without Fill-In	With Fill-In Applied
Clark	19,672	71.4%	-0.5%	+1.0%	+0.7%	+1.9%
King	334,889	57.8%	-7.1%	+1.5%	-10.3%	-7.1%
Kitsap	22,107	57.9%	+0.5%	+5.9%	+1.1%	+6.1%
Pierce	76,848	47.5%	-0.1%	+8.7%	+4.9%	+7.8%
Snohomish	79,057	43.1%	-3.4%	+5.8%	-0.9%	+5.1%
Spokane	42,629	76.9%	-1.2%	-0.7%	+0.1%	+0.4%
Thurston	22,907	75.7%	-0.8%	+0.3%	+0.4%	+1.2%
Whatcom	6,534	75.7%	+1.7%	+3.4%	+2.0%	+2.7%
Yakima	7,675	81.8%	-5.3%	-5.3%	-19.6%	-19.6%

County Absolute Change in Mode From 2007/8



County Relative Change in Mode From 2007/8



Jurisdictions in Snohomish and Whatcom Counties - 2011/12 Change from 2007/8 Baseline

	Total Employees	Survey Response Rate	2011/12 Drive Alone Rate Percent Change from 2007/8 Baseline		2011/12 VMT Per Employee Rate Change from Baseline	
			Without Fill-In	With Fill-In Applied	Without Fill-In	With Fill-In Applied
Snohomish County	79,057	43.1%	-3.4%	+5.8%	-0.9%	+5.1%
City of Arlington	1,164	62.5%	+0.3%	+2.7%	-2.2%	-0.8%
City of Bothell (Plus King Co.)	6,172	73.4%	-7.3%	-6.3%	-5.9%	-5.4%
City of Edmonds	1,835	76.2%	-1.3%	-1.3%	-24.6%	-24.6%
City of Everett	51,546	35.0%	-5.5%	+8.5%	-0.5%	+8.4%
City of Lynnwood	2,857	61.0%	-1.3%	+4.6%	+7.6%	+11.2%
City of Marysville	587	83.1%	+6.4%	+6.4%	-1.9%	-1.9%
City of Monroe	1,235	53.5%	-5.6%	-1.3%	+46.9%	+51.1%
City of Mountlake Terrace	2,796	78.0%	+7.1%	+7.1%	+1.8%	+1.8%
City of Mukilteo	2,297	47.9%	-2.7%	+2.4%	+6.7%	+10.0%
Unincorporated Snohomish Co.	8,568	42.0%	-2.4%	+1.2%	+18.0%	+21.8%
Whatcom County	6,534	75.7%	+1.7%	+3.4%	+2.0%	+2.7%
City of Bellingham	5,935	74.9%	+2.2%	+4.2%	+4.1%	+5.0%
Unincorporated Whatcom Co.	599	83.0%	-3.0%	-3.0%	-13.2%	-13.2%

Jurisdictions in King County - 2011/12

Change from 2007/8 Baseline

	Total Employees	Survey Response Rate	2011/12 Drive Alone Rate Percent Change from 2007/8 Baseline		2011/12 VMT Per Employee Rate Change from Baseline	
			Without Fill-In	With Fill-In Applied	Without Fill-In	With Fill-In Applied
			King County	334,889	57.8%	-7.1%
City of Auburn	10,679	46.8%	-1.9%	+4.4%	-0.2%	+2.2%
City of Bellevue	36,315	56.6%	+1.1%	+8.2%	-4.6%	-0.2%
City of Bothell (plus Sno.Co.)	3,508	73.4%	-7.3%	-6.3%	-5.9%	-5.4%
City of Burien	1,096	66.2%	+0.0%	+1.0%	-14.4%	-14.4%
City of Des Moines	1,216	88.2%	-8.0%	-8.0%	-4.6%	-4.6%
City of Federal Way	4,547	59.0%	+0.4%	+5.8%	+0.9%	+2.7%
City of Issaquah	8,369	62.5%	+0.4%	+1.9%	+0.1%	+1.3%
City of Kent	10,077	58.5%	-0.5%	+2.8%	+1.3%	+3.9%
City of Kirkland	6,430	80.3%	-0.0%	+0.3%	-9.7%	-9.6%
City of Mercer Island	807	63.4%	-2.1%	+6.7%	+2.0%	+8.8%
City of Redmond	50,792	47.9%	-8.7%	-4.0%	-6.3%	-3.2%
City of Renton	22,076	43.1%	-2.4%	+7.5%	-0.5%	+5.7%
City of SeaTac	6,760	36.9%	-20.3%	+11.6%	-22.4%	-5.3%
City of Seattle	146,837	65.6%	-6.3%	+0.7%	-12.9%	-10.3%
City of Shoreline	3,001	72.8%	+2.1%	+5.2%	+1.0%	+2.6%
City of Tukwila	20,713	45.9%	+0.9%	+7.8%	-2.9%	+1.2%
City of Woodinville	1,276	80.5%	-3.4%	-3.4%	+6.7%	+6.7%
Unincorporated King County	390	78.6%	-5.8%	-5.8%	-1.1%	-1.1%

Jurisdictions in Spokane and Yakima Counties - 2011/12 Change from 2007/8 Baseline

	Total Employees	Survey Response Rate	2011/12 Drive Alone Rate Percent Change from 2007/8 Baseline		2011/12 VMT Per Employee Rate Change from Baseline	
			Without Fill-In	With Fill-In Applied	Without Fill-In	With Fill-In Applied
Spokane County	42,629	76.9%	-1.2%	-0.7%	+0.1%	+0.4%
City of Airway Heights	719	75.1%	-1.1%	-1.1%	-2.1%	-2.1%
City of Cheney	1,428	72.4%	-1.4%	-1.0%	+5.0%	+5.0%
City of Liberty Lake	1,927	80.3%	+6.2%	+6.2%	+7.5%	+7.5%
City of Medical Lake	1,263	64.0%	+6.3%	+10.1%	+12.9%	+15.4%
City of Spokane	26,001	76.6%	-1.7%	-1.3%	+2.9%	+3.1%
City of Spokane Valley	4,644	85.7%	+1.1%	+1.2%	+1.6%	+1.6%
Unincorporated Spokane	6,647	74.3%	-3.1%	-2.6%	-1.9%	-1.3%
Yakima County	7,675	81.8%	-5.3%	-5.3%	-19.6%	-19.6%
City of Moxee	357	81.4%	-6.6%	-6.6%	-1.6%	-1.6%
City of Selah	918	72.6%	-7.2%	-7.2%	-14.0%	-14.0%
City of Toppenish	346	86.7%	-18.4%	-18.4%	-18.0%	-18.0%
City of Union Gap	393	89.3%	-11.1%	-11.1%	-2.3%	-2.3%
City of Yakima	5,566	81.6%	-7.3%	-7.3%	-14.0%	-14.0%
Unincorporated Yakima	95	100.0%	-1.0%	-1.0%	-43.8%	-43.8%

Jurisdictions in Clark and Thurston Counties - 2011/12 Change from 2007/8 Baseline

	Total Employees	Survey Response Rate	2011/12 Drive Alone Rate Percent Change from 2007/8 Baseline		2011/12 VMT Per Employee Rate Change from Baseline	
			Without Fill-In	With Fill-In Applied	Without Fill-In	With Fill-In Applied
Clark County	19,672	71.4%	-0.5%	+1.0%	+0.7%	+1.9%
City of Camas	2,051	70.5%	-1.1%	+0.4%	-4.5%	-3.8%
City of Vancouver	15,029	72.8%	+0.2%	+1.5%	+1.0%	+2.3%
City of Washougal	251	91.9%	+11.4%	+11.4%	-3.8%	-3.8%
Unincorporated Clark	2,341	62.1%	-6.3%	-3.3%	+3.2%	+4.5%
Thurston County	22,907	75.7%	-0.8%	+0.3%	+0.4%	+1.2%
City of Lacey	2,463	78.4%	+1.4%	+1.4%	+3.7%	+3.7%
City of Olympia	13,371	77.4%	-0.8%	-0.2%	+3.7%	+4.1%
City of Tumwater	6,623	71.3%	-1.0%	+1.5%	-1.1%	+0.7%
Unincorporated Thurston	450	74.4%	-2.7%	-2.7%	+10.5%	+10.5%

Jurisdictions in Pierce and Kitsap Counties - 2011/12 Change from 2007/8 Baseline

	Total Employees	Survey Response Rate	2011/12 Drive Alone Rate Percent Change from 2007/8 Baseline		2011/12 VMT Per Employee Rate Change from Baseline	
			Without Fill-In	With Fill-In Applied	Without Fill-In	With Fill-In Applied
Pierce County	76,848	47.5%	-0.1%	+8.7%	+4.9%	+7.8%
City of Buckley	47	95.0%	NA	NA	NA	NA
City of Dupont	1,884	77.1%	+1.4%	+2.8%	+2.1%	+3.3%
City of Fife	765	75.6%	+4.8%	+4.8%	+11.6%	+11.6%
City of Lakewood	4,181	56.4%	+5.4%	+9.2%	+2.2%	+4.2%
City of Puyallup	3,094	51.4%	-0.6%	+3.2%	+2.9%	+4.5%
City of Sumner	180	87.8%	NA	NA	NA	NA
City of Tacoma	22,973	58.1%	+0.4%	+6.2%	+4.4%	+6.7%
City of University Place	229	76.9%	-1.6%	-1.6%	+4.4%	+4.4%
Unincorporated Pierce	43,542	25.0%	-1.4%	+12.2%	+13.5%	+20.1%
City of Steilacoom	401	79.8%	NA	NA	NA	NA
Kitsap County	22,107	57.9%	+0.5%	+5.9%	+1.1%	+6.1%
City of Bainbridge Island	261	88.4%	-2.5%	-2.5%	-3.5%	-3.5%
City of Bremerton	15,023	50.9%	+9.9%	+19.6%	+12.9%	+22.3%
City of Port Orchard	623	86.0%	+0.5%	+0.5%	+5.9%	+5.9%
Unincorporated Kitsap	6,200	70.0%	-8.6%	-6.2%	-10.1%	-8.6%

Jurisdictions Meeting Drive Alone, VMT or Both Goals

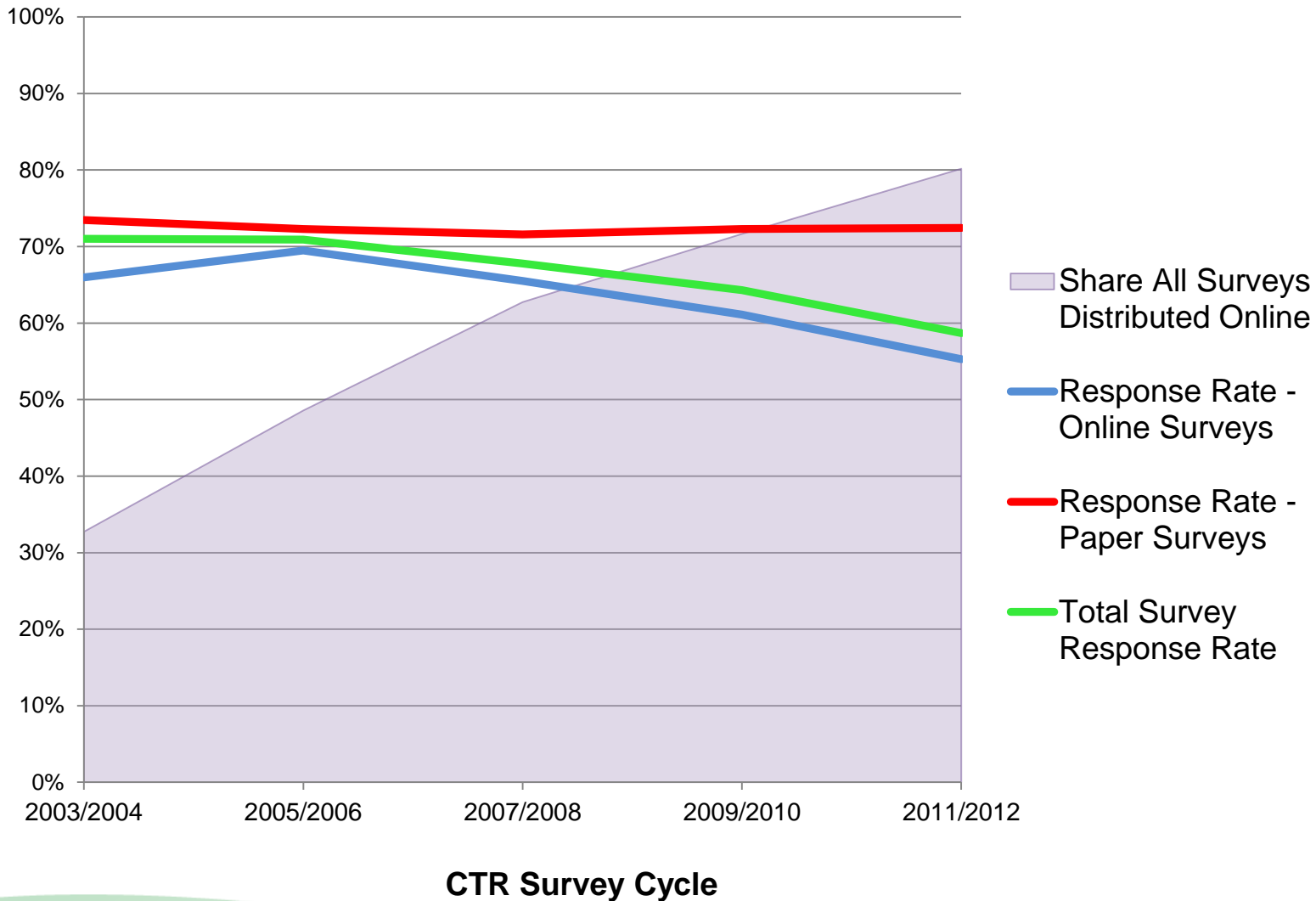
- Met Both Drive Alone and VMT Reduction Goals
 - City of Toppenish
 - City of SeaTac (without fill-in only)
- Met 10% Drive Alone Reduction Goal
 - City of Union Gap
- Met 13% VMT/Employee Reduction Goal
 - City of Burien
 - City of Edmonds
 - Unincorporated Whatcom County
 - Unincorporated Yakima County
 - City of Selah
 - City of Yakima

Declining Survey Response Rates

- Low response rates decrease our confidence in the results for some jurisdictions because of the increased risk of non-response bias.
- Non-response bias means that the survey results from those who completed the survey may differ from the commuting behavior of the worksite as a whole.
- It's very difficult to assess the impact of non-response bias. This kind of assessment would entail follow up surveys or other methods to gauge to what degree those who didn't respond may differ from those who did respond.
- Research literature indicates online surveys tend to have lower response rates than paper surveys. But there are benefits (environmental, cost, and others) to online surveys compared to paper surveys.

Response Rates Have Been Falling for Online Surveys

(But there are some advantages to online surveys too.)



Working to Improve Survey Response Rates

- To improve response rates, we've begun adopting and sharing best practices of jurisdictions that achieve high response rates. This includes a policy requiring a minimum 50% response rate on surveys (in addition to the use of fill-in if response rates are less than 70%).
- We hosted a peer exchange to share best practices on improving survey response rates, and shared notes with jurisdictions (to also share with ETCs). For example, peer exchange tips included using our online survey system tools to help improve response rates (such as online tool that identifies those who haven't yet responded to survey so ETC can contact them personally).
- We posted more tips on CTR Board web page from WSU surveying experts on response rates.
- We plan to invite Thom Allen from WSU at next TAG meeting to discuss response rates.
- As the new CTR Board/TAG performance committee begins its work, these issues should be explored further.