
2009

CTR REPORT TO THE WASHINGTON STATE LEGISLATURE



Washington State
Commute Trip Reduction Board

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Report prepared by the CTR Board with support from the Washington State Department of Transportation, Public Transportation Division, January 2010.

This report is available electronically at www.wsdot.wa.gov/transit.

To comment or request more information:

Washington State Department of Transportation,
Public Transportation Division, PO Box 47387, Olympia, WA 98504-7387

Phone: 360-705-7846

E-mail: transit@wsdot.wa.gov



Washington State Commute Trip Reduction Board

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Transportation

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January 31, 2010

To: Washington State Legislature

From: Brian Lagerberg, Chair
Commute Trip Reduction Board

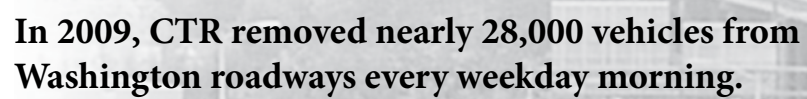
It is my pleasure to submit the CTR Board's 2009 Legislative Report. The CTR program and the investments highlighted in this report are the foundation of state efforts to manage demand for our highways by offering individuals more choices for how they will use the transportation system.

This report discusses the strong performance of the CTR program since the 2006 CTR Efficiency Act, which is effectively transforming CTR from a top-down mandate to a bottom-up, locally driven and integrated approach. This evolution builds on existing CTR infrastructure to focus resources for the greatest impact. The data shows that this approach is working and the CTR Board recommends continued CTR funding.

This report has exciting stories to tell. Here are some of the headlines:

- CTR continues to perform, removing 28,000 vehicles from Washington roadways every weekday morning in 2009.
- Focused resources drove record program success. CTR worksites within new geographic focus areas – growth and transportation efficiency centers – were about nine times as successful as all other CTR sites.
- CTR's increasing performance bolsters the state's congestion, emissions and energy consumption goals. CTR reduced 12,900 hours of delay in the Central Puget Sound Region in 2009, saving \$99 million for the region in congestion costs due to lost time and wasted fuel. Statewide, CTR reduced 62 million VMT annually, equivalent to 27,490 metric tons of greenhouse gasses and three million gallons of fuel.
- CTR provides economic benefits. Each morning peak traveler in the Central Puget Sound saved \$59 in 2009 due to the increased system efficiency provided through the CTR program.
- CTR creates, strengthens, and leverages partnerships. In 2004, employers invested \$49.4 million dollars in CTR, more than \$18 for each dollar invested by the state.
- The state should continue to invest in CTR. CTR is a \$35 to \$1 return on state investment in terms of congestion benefits alone.

The CTR Board is scheduled to deliver a comprehensive assessment of the program in January 2011 that will include potential new areas for the program and evaluation of the program's policies and goals. Should you have any questions about the information contained in this report, please contact me at 360-705-7878.



In 2009, CTR removed nearly 28,000 vehicles from Washington roadways every weekday morning.

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Executive Summary

Washington State's Commute Trip Reduction (CTR) Law was passed by the Legislature in 1991 with goals to improve air quality, reduce traffic congestion, and reduce the consumption of petroleum fuels through employer-based programs that encourage the use of alternatives to driving alone. This 2009 Legislative Report contains the CTR Board's assessment of the program and recommendations for improvement. The CTR Board finds that CTR is working and recommends continued funding.

CTR Works

Reducing congestion, strengthening the economy

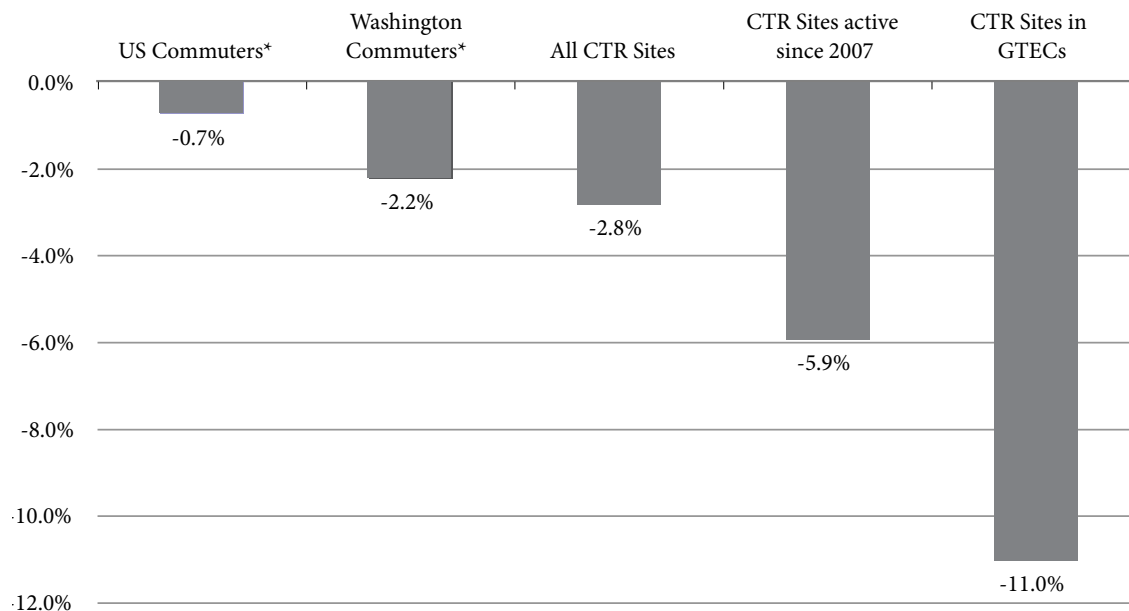
The CTR program results in 2009 include:

- *CTR continues to perform*, removing nearly 28,000 vehicles from Washington roadways every weekday morning in 2009.
- *Focused resources drove record program success*. Growth and Transportation Efficiency Centers (GTECs), a special designation authorized by the Legislature in 2007 to enhance CTR activities within

dense urban centers, have shown promising initial success. CTR worksites within GTECs were about nine times more successful than all other CTR sites.

- *CTR's increasing performance bolsters the state's congestion, emissions and energy consumption goals*. CTR reduced 12,900 hours of delay in the Central Puget Sound Region in 2009, saving \$99 million for the region in congestion costs due to lost time and wasted fuel. CTR reduced 62 million VMT annually, equivalent to 27,490 metric tons of greenhouse gasses and three million gallons of fuel.
- *CTR provides economic benefits*. Each traveler in morning peak traffic in the Central Puget Sound saved \$59 in 2009 due to the increased system efficiency provided through the CTR program.
- *CTR creates, strengthens, and leverages partnerships*. In 2004, employers invested \$49.4 million dollars in CTR, more than \$18 for each dollar invested by the state.
- *CTR is cost effective*. In 2009, state investment in CTR provided a congestion reduction benefit in Central Puget Sound worth \$35 for every \$1 invested.

Percent Change in Drive Alone Rate from 2007 to 2009



* Change from 2007 to 2008.

Employers and jurisdictions are making progress

In 1991 when the Legislature created the CTR program, it recognized the significant role that employers could play in transportation efficiency. The CTR Efficiency Act of 2006 built upon the established employer role, and expanded responsibility for program success to local governments who work with employers. The new law directed these jurisdictions to establish new goals for reducing drive-alone trips and vehicle miles traveled (VMT) and to develop plans and policies that could achieve those goals. The purpose was for jurisdictions to implement transportation-efficient land uses and supportive policies, investments, and partnerships that create optimal conditions for CTR success.

The data collected so far in the 2009-10 survey period shows that employers that are consistently engaged in the CTR program are meeting the legislature's original intent and playing a strong role in transportation success. CTR worksites that were in the program continuously between 2007 and 2009 demonstrated greater performance than the overall group of CTR employers, which included employers entering and leaving the program.

At the same time, jurisdictions are making progress toward the goals that they established under the CTR Efficiency Act. The share of commute trips made by driving alone to CTR worksites declined by 2.8 percent, equaling a reduction of 7,315 daily one-way vehicle trips. The VMT per employee to CTR worksites dropped by 2.6 percent, a total reduction of nearly 62 million VMT annually to and from CTR worksites since 2007-08.

Focused resources are driving CTR program success

The drive-alone rate at CTR worksites continues to outperform the average drive-alone commute rate for the state and nation.

A new program focus launched in 2007 called Growth and Transportation Efficiency Centers (GTECs) expands the reach of traditional CTR. GTECs are located within some of the densest and most congested employment

centers in the state, use a more flexible implementation model, and include smaller worksites, schools and neighborhoods, in addition to CTR worksites. The CTR worksites within GTECs showed the greatest performance from 2007 to 2009, driving the overall progress of the program towards its statewide goals.

CTR is providing many benefits

By reducing almost 28,000 trips on Washington roadways every weekday morning, CTR provides many benefits to citizens and businesses.

- *Congestion:* CTR quickly and inexpensively frees up capacity on the transportation system, resulting in cost and time savings for individuals, employers, and the community. CTR reduced delay by 7.6 percent in the Central Puget Sound Region in 2009, saving each morning peak traveler \$59 a year in wasted fuel and lost time.
- *Economic development:* Economic efficiency and transportation efficiency are closely linked. CTR success supports business vitality and economic development by offering an employee benefit, reduced taxes, and savings in construction and maintenance of parking. For example, downtown Vancouver has set an aggressive goal for job growth coupled with a target to reduce drive-alone trips to downtown from 88 percent to 65 percent. If these targets are realized, adding jobs while reducing drive alone trips would save the businesses in downtown \$136 million in parking construction.
- *Emissions reductions:* Greenhouse gas emissions (GHG) from the transportation sector account for nearly half of the state's total emissions. By reducing 62 million VMT each year between 2007 and 2009, CTR participants reduced 27,490 metric tons of GHG annually – equivalent to about 144 railcars' worth of coal or to the carbon sequestered annually by 5,861 acres of pine or fir forests.
- *Energy consumption reductions:* The VMT reduced by CTR commuters results in an annual savings of three million gallons of gas. At an average price of \$2.60 per gallon, CTR commuters saved \$7.8 million in fuel costs alone.

CTR is a partnership among employers and governments

- The CTR program fosters strong partnerships between state and local governments, transit agencies, regional transportation planning organizations, and employers.
 - Partnerships bring organizations together to develop transportation solutions that support local and state goals and help to leverage the state's investment.
- In 2004, the latest year for which data is available, employers invested \$49.4 million dollars in their CTR programs, more than \$18 for each dollar invested by the state.

CTR Board Recommendations

- **Continue to invest in CTR:** The CTR program's proven and cost-effective performance provides significant benefits to people and businesses. Given the current economic situation, the Board recommends the Legislature continue to invest in CTR and its supporting strategies.
- **Keep the current definition of a major employer in the CTR law:** The Board has periodically considered changing the definition of an affected employer to help the program reach a greater portion of commuters. So far, GTECs appear to be an effective solution for targeted expansions of the program. The Board believes this approach to be more effective than changing the definition of a major employer in the CTR law.
- **Explore funding and policy opportunities for 2011:** In its 2011 report, the Board plans to recommend that the Legislature consider expanding funding for the program and associated infrastructure as a natural complement to other state transportation investments. As funding becomes available, the Board recommends investing in GTECs and flexible work strategies, as well as focused investments in expanded transit supply, vanpool flexibility, and park and rides.





**CTR is a partnership among employers, governments,
and the people of Washington State.**

Introduction

The most significant revisions to the CTR program were made in 2006 with the passage of the CTR Efficiency Act, which made the program more focused, streamlined, flexible and coordinated with other local and regional planning requirements.

"Washington is particularly vulnerable to the impacts of climate change, and without additional action to reduce carbon emissions, the severity of the impacts will negatively affect nearly every part of Washington's economy and environment.... it is critical to Washington's economic future that greenhouse gas reduction strategies be designed and implemented in a manner that minimizes cost impacts to Washington citizens and businesses."

Executive Order 09-05 Washington's leadership on climate change

Washington is recognized as a national leader in helping commuters get to work. The state's CTR Law was passed by the Legislature in 1991 with goals to improve air quality, reduce traffic congestion, and reduce the consumption of petroleum fuels through employer-based programs that encourage the use of alternatives to driving alone.

Several changes have been made to the program in the 18 years since its inception. The most significant revisions were made in 2006 with the passage of the CTR Efficiency Act, which made the program more focused, streamlined, flexible and coordinated with other local and regional planning requirements.

The CTR program brings business and government together to provide solutions to help maximize the efficiency of the transportation system. The role of the CTR Board, with its business, government, and citizen representatives appointed by the Governor, is to evaluate the program's performance, recommend ways to improve it, and report to the Legislature every two years.

This 2009 Report to the Washington State Legislature examines the performance of the CTR program and other supporting strategies. It evaluates the program's costs and benefits and provides recommendations to enhance the program.

This report is organized as follows:

1. **Background of the CTR program** describes the purpose of the CTR program, how it works, and some of its supporting strategies.
2. **Performance of the CTR program** describes the performance of the CTR program and its costs and benefits. This section also examines the performance of supporting strategies.
3. **Evolution of the CTR program** documents ways in which the CTR program is evolving as the CTR Efficiency Act continues to be implemented.
4. **Recommendations to the Legislature** describes the CTR Board's recommendations for the 2010 and 2011 legislative sessions.



Background of the CTR program

The Legislature created the CTR program in 1991 to address three primary concerns:

- **Congestion** costs Washington's businesses and travelers in terms of lost working hours, wasted fuel, and delays in the delivery of goods and services.
- **Air pollution** impacts public health and the environment.
- **Petroleum fuel consumption** increases our state's reliance on imported sources of petroleum and diminishes the nation's energy security.

In 2009, these concerns are still relevant. Congestion, air pollution, and energy issues continue to drag on the state's economy, environment, and quality of life.

Strategies to help manage transportation demand are part of the solution. Changes in commuter habits, such as joining a carpool or vanpool, riding the bus, bicycling, walking, or working from home, lead to fewer vehicle trips in peak periods of congestion. In addition to reducing congestion, an efficient transportation system reduces energy use, greenhouse gas emissions, and air pollution, and supports economic growth and sustainability.

By creating the CTR program, the Legislature recognized that employers had a significant role to contribute to transportation success and asked them to encourage the use of alternatives to driving alone by their employees. Today, the program is implemented at more than 1,000 worksites statewide. Business industry feedback indicates that the CTR program is a tangible way for employers to be "green" and to strengthen their corporate image in the community while simultaneously supporting state goals.

CTR focuses on major employers and congested urban growth areas

The CTR program's focus is on commuters traveling to large worksites and dense employment centers through congested areas during the morning peak travel period. The program directs major employers in the urban growth areas of the state with the greatest levels of traffic congestion to implement programs to reduce the proportion of employees who drive alone to work.¹ Local governments within these same areas may voluntarily establish growth and transportation efficiency centers (GTECs) to expand the CTR program's focus to smaller employers, students, and residents.

In 2009, approximately 530,000 employees at roughly 1,050 worksites across urban growth areas in nine counties have access to employer CTR programs. An additional 235,000 commuters have access to services and programs offered through seven designated GTECs.

CTR is a partnership between employers and governments

The CTR program is unique for its complex and effective partnerships between state and local governments, transit agencies, regional transportation planning organizations, and employers. These partnerships bring organizations together to engage in developing meaningful transportation solutions that support local and state goals and help to leverage the state's investment.

¹ A major employer is defined in the CTR law as a private or public employer, including state agencies, that employs one hundred or more full-time employees at a single worksite who begin their regular workday between 6 and 9 a.m. on weekdays for at least 12 continuous months.

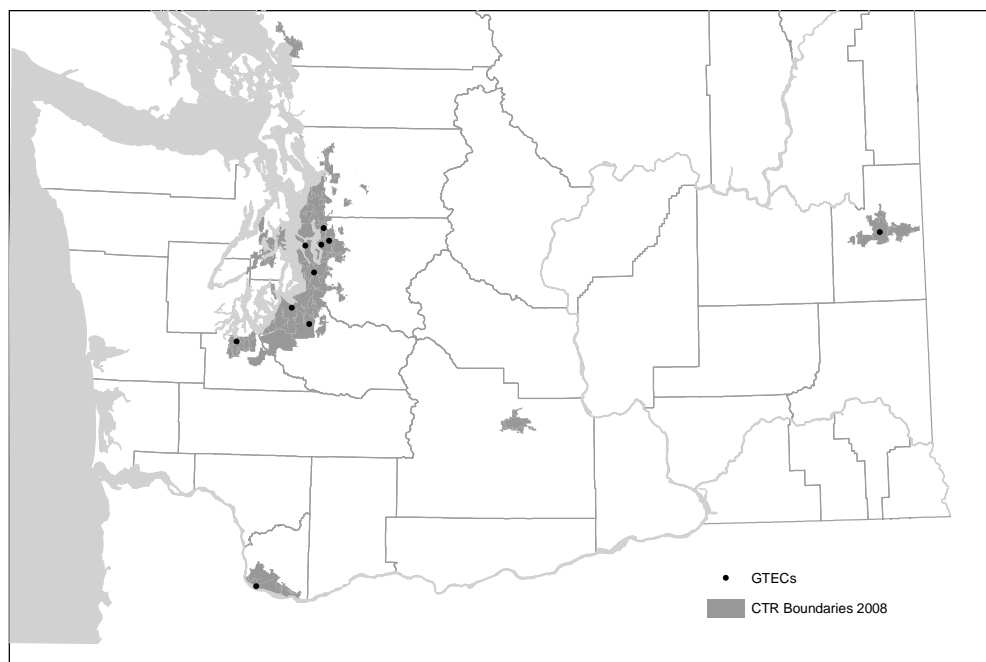
"The legislature further finds that reducing the number of commute trips to work made via single-occupant cars and light trucks is an effective way of reducing automobile-related air pollution, traffic congestion, and energy use. Major employers have significant opportunities to encourage and facilitate reducing single-occupant vehicle commuting by employees."
1991 CTR Law

"Business leaders, security experts, government officials, concerned citizens and the United States Supreme Court have called for enduring, pragmatic solutions to reduce the greenhouse gas pollution that is causing climate change. This continues our work towards clean energy reform that will cut GHGs and reduce the dependence on foreign oil that threatens our national security and our economy."
Lisa P. Jackson,
EPA Administrator

"Car and truck emissions are the largest source of climate pollution in Seattle and one of the hardest areas of our carbon footprint to reduce. In 2005, transportation was the only emission sector in Seattle to show an increase above 1990 levels. If we are going to change this, we must offer transportation options to Seattle residents that get them where they want to go."

*City of Seattle,
Office of
Sustainability,
Seattle Climate
Action Plan, 2008
Progress Report*

Urban growth areas and designated GTECs in the CTR program



The roles in the CTR program include:

- **Major employers** implement their programs based on locally adopted goals for reducing vehicle trips and vehicle miles traveled (VMT) established by the city or county in which they do their business. Groups of employers, such as Transportation Management Associations (TMAs) or chambers of commerce, may also partner to provide services and support to commuters.
- **Local governments** provide technical assistance and services to employers to help them achieve the goals and may also run their own outreach and service programs directly to commuters.
- **Transit agencies** operate services such as bus and vanpools and coordinate services and support with local governments.
- **Regional transportation planning organizations** provide planning support and coordination across jurisdictions.
- The **state** provides grants to local governments to support employers and commuters. The state investment generates significant local and private investment.
- **WSDOT** administers funding, guides the program with policies and procedures, and coordinates measurement and evaluation of the program.
- The Governor-appointed **CTR Board** sets the overall policy direction and funding levels for the program and reports to the legislature every two years on the effectiveness of the program.



CTR is supported by other state investments and strategies

The infrastructure of partnerships and services created by the CTR program provides a foundation for other strategies to build on. In turn, supportive strategies help the program achieve greater performance by compounding benefits, extending services and leveraging additional public and private investments.

Vanpool Investment Program

Washington continues to lead the nation in vanpooling with the largest public vanpool fleet in North America and 20 transit agencies operating vanpool programs around the state. In 2003, the Legislature developed a 10-year vanpool investment program with the goal to double the number of operating vanpools to 3,200 vans by 2013. This has helped to grow existing programs and create new transit agencies to operate vans and support economic development in rural areas.

Construction Traffic Management Program

WSDOT's Construction Traffic Management Program helps keep people and goods moving during construction by expanding coordination and mitigation for roadway construction. The transportation system is a web of interconnected segments. A change or construction project in one location or affecting one mode of transportation can affect the other parts of the system significantly. Construction mitigation activities build upon and complement existing CTR strategies like vanpools and increasing transit use.

Trip Reduction Performance Program

The Trip Reduction Performance Program (TRPP) was created in 2003 to encourage entrepreneurs, private companies, transit systems, local governments, non-profit organizations, developers and property managers to provide services to employees that result in fewer vehicle trips arriving at worksites. Funding is awarded in a competitive selection process and the full award is only paid if the project meets its trip reduction goals. Many of the projects funded in 2007-09 were implemented in CTR areas, leveraging the base program while focusing additional resources on specific strategies to increase performance. While the TRPP program was not funded for 2009-11, the program model offers a scalable approach that can be used to spur innovation and investment on focused trip reduction strategies.

Kitsap Telework Pilot Project

In 2008, the Legislature provided \$150,000 for the Kitsap Regional Coordinating Council (KRCC) to develop and implement a telework pilot project to provide employers with tools to implement telework in their organizations while providing community leaders with guidance to promote the adoption of telework. The KRCC recruited public and private sector employer participants throughout Kitsap County, developed an employer telework toolkit, and created a community telework template.² The project received a 2009 Vision 2040 Award from the Puget Sound Regional Council.

² Materials, including the telework toolkit are available online at www.teleworktoolkit.com.

"Reducing trips is an important goal because we are an environmentally conscious employer striving to make a positive impact on our environment and our communities. CH2M HILL's trip reduction programs benefit our employees by providing many options for trip reduction, help to lower their commuting costs, and contribute to a reduction in their carbon footprint (which most employees are proud to say they do!)."

*Kathy Hanna,
CH2M HILL
Bellevue*



Performance of the CTR program

"Honeywell Renton is committed to the CTR program and to Washington's efforts to reduce our carbon footprint. Employees find this benefit especially great when the weather turns bad. We have one employee that bikes, takes the bus and the train to get to work every day. We have employees that have never taken the bus before who are asking for passes to try out the bus system."

*Mike Castek,
Honeywell
Renton*

In 2009, as in previous years, the CTR program provided substantial benefits for transportation efficiency. The program results also support economic development, energy conservation and emissions reduction. While the program reaches only a small portion of the overall workforce, its limited resources are focused where they can provide the biggest impact.

CTR Works

Reducing congestion, strengthening the economy

The data shows that the CTR program continued to perform in 2009.³ These results show:

- CTR employers and jurisdictions are making progress
- Focused resources drove record program success
- CTR's increasing performance bolsters the state's congestion, emissions and energy consumption goals
- CTR provides economic benefits
- Other state investments support CTR performance

Program goals and measurement

When the Legislature originally created the CTR program, it recognized the role that employers could play in transportation efficiency. The original law set goals for employers to meet with their programs. The CTR Efficiency Act of 2006 built upon the established employer role and expanded responsibility for program success to the local governments that work with the employers. The new law directed these jurisdictions to establish new goals at the jurisdiction level for reducing drive-alone trips and vehicle miles traveled (VMT) and to develop plans and policies that could achieve those goals. The purpose

was to guide jurisdictions to implement transportation-efficient land uses and supportive policies, investments, and partnerships that create optimal conditions for CTR success.

In 2007, local governments and regional planning organizations adopted their new goals required under the CTR Efficiency Act.⁴ These local and regional goals add up to a statewide goal to reduce the proportion of commuters who drive-alone by 10 percent and VMT per employee to CTR worksites by 13 percent from 2007 to 2012. In 2012, WSDOT will determine if local governments, regions and state achieved their goals and what factors impacted the program's performance.

³The U.S. and local economy was in a severe recession in 2008 and 2009, with unemployment at its highest level in decades. In general, however, the CTR program impacts should not be greatly impacted by changes in employment or the number of workers, since the program results are based primarily on changes in travel behavior for an average survey respondent. For instance, the estimate of total vehicle trips reduced from 2007 to 2009 is based on the difference in average vehicle trips per surveyed employee in 2009 compared to 2007 (rather than the absolute difference in the total number of estimated vehicle trips for each year). This difference is then multiplied by total surveys distributed in 2009 to estimate total vehicle trips reduced. If average vehicle trips per surveyed employee had been higher in 2009 compared to 2007, there would have been no reduction in vehicle trips (even if, in an extreme fictitious example, total employment had dropped by 50 percent in 2009).

While some changes to the drive alone rate due to the recession are possible (for example, if a family's income has declined such that a worker decides to join a carpool or vanpool to save money commuting), there doesn't appear to be much evidence in CTR survey data that recessions in and of themselves result in changes in drive alone rates. For example, the last recession was from March 2001 to November 2001. The CTR program's drive alone rate in 1999 was 64.5 percent, it decreased only very slightly in the 2001 survey to 64.3 percent, and increased in the 2003 survey to 70.1 percent.

⁴The Legislature's passage of the CTR Efficiency Act in 2006 reset the program's baseline to the 2007-08 survey cycle and changed several measurement elements of the program. This means that WSDOT and its program partners are focused on tracking progress between the 2007-08 and 2011-12 survey cycles, rather than comparing performance back to the original 1993 baseline. This progress in 2009 means that the number of vehicle trips to CTR worksites has decreased significantly since the beginning of the program. Employees commuting to CTR worksites statewide made nearly 28,000 fewer vehicle trips each weekday morning in 2009 than they did when they entered the program – a nine percent reduction from the baseline.

The CTR program has collected data on commuting trends to CTR employers since 1993. Employers survey their employees at least once every two years to determine how commute choices have changed and which commute services their employees are most interested in. Local governments and the state analyze the data to evaluate progress toward local and state goals. The goals are based on measurement of all of the CTR worksites that collect data within a given survey period.

CTR employers and jurisdictions made progress in 2009

The data collected so far in the 2009-10 survey period shows that employers that are consistently engaged in the CTR program are meeting the legislature's original intent and playing a strong role in transportation success. CTR worksites that were in the program continuously between 2007 and 2009 demonstrated greater performance than the overall jurisdiction results, which included employers entering and leaving the program.

In the table below, the 2.8 percent reduction in driving alone demonstrated by jurisdictions is less than the 5.9 percent rate for those CTR employers with data for 2007-08 and 2009-10. This is because the overall jurisdiction results include worksites that have just entered or left the program, such as new or relocating businesses. New worksites typically have a higher drive-alone rate because they haven't yet implemented their worksite programs. The intent of the overall jurisdiction-level goals is to encourage jurisdictions to develop infrastructure and transportation efficient policies that support lower drive-alone rates, regardless of when an employer enters the program.

Jurisdictions are making progress toward the goals established under the CTR Efficiency Act, due in large part to the consistent CTR employer performance. The share of commute trips made by driving alone to CTR worksites since 2007-08 declined by 2.8 percent, equaling a reduction of 7,315 daily one-way vehicle trips (or 3.6 million annual round-trips reduced). The VMT per employee to CTR worksites dropped by 2.6 percent, resulting in a total reduction of nearly 62 million annual VMT.

CTR employers and jurisdictions are making progress

CTR employers consistently in the program from 2007-2008 to 2009-10			
	2007-08	2009-10	Percent Change
Drive alone rate	69.3%	65.2%	-5.9%
VMT per employee	11.8	11.1	-6.0%

Overall jurisdiction results				
	2007-08	2009-10	Percent Change	2011-12 Goal
Drive alone rate	67.4%	65.5%	-2.8%	60.7%
VMT per employee	11.4	11.1	-2.6%	9.9

Source: CTR survey database⁵

⁵Not all CTR worksites have completed their employee surveys for the 2009-10. Overall jurisdiction results represent data for 89 percent of the CTR worksites. WSDOT estimates there were 530,000 employees at 1,054 worksites in 2009.

The intent of the overall jurisdiction-level goals is to encourage jurisdictions to develop infrastructure and transportation efficient policies that support lower drive-alone rates, regardless of when an employer enters the program.

Statewide CTR Program Goals:

- Reduce the drive alone rate to CTR worksites by 10 percent from 2007-08 to 2011-12.
- Reduce VMT per employee to CTR worksites by 13 percent from 2007-08 to 2011-12.

Between 2007-08 and 2009-10, CTR worksites reduced 3.6 million vehicle trips and 62 million VMT each year.

"Spokane County feels that it is important to set the example regarding "Green" issues, and CTR is definitely that. Our program has been recognized by the Governor as one of the best in the State. The sense here at the County is that CTR has become a true benefit to our employees as well as the County as an employer and financial support for the program will continue."

*Don McDowell,
Spokane County*

Focused resources drove record program success

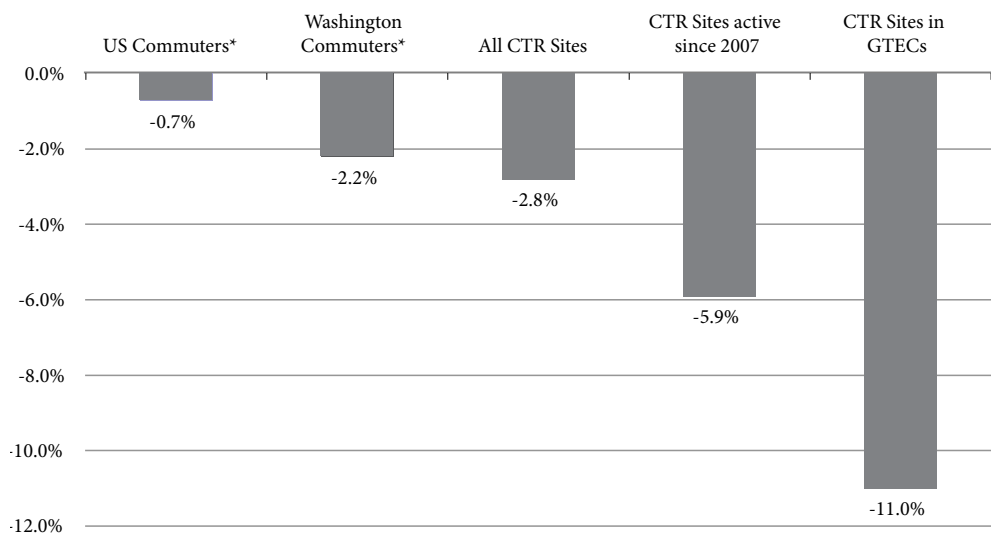
The drive-alone rate at CTR worksites continues to outperform the average drive-alone commute rate for the state and nation.

CTR worksites within GTECs showed the greatest performance, driving the overall progress of the program. GTECs are located within some of the densest and most congested employment centers in the state, use a more flexible implementation model, and include smaller worksites, schools and neighborhoods, in addition to traditional CTR worksites. The overall performance of the GTECs has not been evaluated because the non-CTR populations will not be surveyed until 2010, but the progress of CTR worksites shows that GTECs themselves are having a positive influence on travel behavior at CTR worksites within these areas.⁶

CTR worksites within GTECs have shown substantial reductions in drive-alone and VMT per employee rates between the 2007-08 and 2009-10 surveys. Compared to the state as a whole, CTR worksites in GTECs reduced drive alone rates and VMT per employee faster than non-CTR worksites.⁷ These results are striking, considering that local jurisdictions did not begin to implement their GTEC programs until 2008.

Historically, CTR worksites located in GTECs have been some of the most successful worksites in the program. Prior to the start of the GTEC program in 2007, these sites were more than twice as successful in reducing drive alone than sites located outside of GTECs.

Percent Change in Drive Alone Rate from 2007 to 2009



* Change from 2007 to 2008.

Sources: U.S. Census Bureau and CTR survey database

⁶ Since baseline surveys for non-CTR worksites within GTECs were conducted in 2008 and follow up surveys are not planned until 2010, the overall performance of GTECs has not yet been comprehensively evaluated. However, for CTR worksites that are within GTECs, data for the 2007-08 and 2009-10 surveys were compared to begin to assess whether the GTEC program overall is having an effect. This is only considered a partial analysis of GTECs since not all worksites are included in the analysis (the analysis only included worksites where inception, 2007 and 2009 survey data were all available).

⁷ The analysis of progress from inception is less reliable than the analysis from 2007 to 2009 since the CTR program, including survey instruments and measurement methodologies, have been refined over time. While the analysis aimed to compare data as consistently as possible, data from earlier years is somewhat inconsistent with 2007 and 2009 data.

Drive Alone Rates for CTR Worksites within GTECs compared to those outside GTECs

		Percent Difference				
Drive Alone Rates	Worksites	Inception (1993-2005)	2007	2009	Inception to 2007	2007- 2009
CTR sites within GTECs	142	53.7%	49.9%	44.4%	-7.1%	-11.0%
CTR sites outside GTECs	796	72.7%	70.8%	70.0%	-2.6%	-1.2%
All CTR Sites	938	69.5%	67.4%	65.5%	-3.0%	-2.8%

VMT per Employee for CTR Worksites within GTECs compared to those outside GTECs

		Percent Difference				
VMT/Employee	Worksites	Inception (1993-2005)	2007	2009	Inception to 2007	2007- 2009
CTR sites within GTECs	142	7.6	7.7	7.0	1.4%	-9.3%
CTR sites outside GTECs	796	11.0	12.1	11.9	9.2%	-1.3%
All CTR Sites	938	10.5	11.4	11.1	8.5%	-2.6%

Source: WSDOT analysis of CTR survey database.

*Year of inception varies by worksite, ranging from 1993 to 2005.

These same worksites have dramatically improved their performance since the GTEC program. Compared to the CTR sites outside of GTECs, the CTR worksites within GTECs were approximately nine times as successful in reducing drive alone rates between 2007 and 2009. It seems reasonable to conclude that with new efforts, continued improvements are possible at all worksites.

CTR's increasing performance bolsters the state's congestion, emissions and energy consumption goals

The results show that the CTR program continues to support the state's goals by providing strong benefits for transportation efficiency, emissions reduction and energy conservation. The results of the 2007-09 program cycle have not been matched in any other period since the program began. This increase can at least be partially explained by the increasing awareness of the program by commuters, businesses and communities.

Reducing congestion

The primary benefit of an efficiency strategy like CTR is that it quickly and inexpensively frees up capacity on the transportation system. CTR protects investments in new capacity by moderating growth in travel demand. This makes the program especially important for rapidly growing regions that are already experiencing significant congestion. Even modest shifts in travel patterns can create big changes in the efficiency of the system, particularly at major bottlenecks and chokepoints where demand consistently exceeds capacity.

Fewer trips, especially at peak times, reduced delay in the Central Puget Sound Region in 2009. If the program participants in the Central Puget Sound Region returned to driving alone to work at the same rate today that they did when they first entered the program, the freeway and arterial system would need to accommodate 22,500 additional drive-alone vehicle trips during the morning peak commute period. These additional vehicle trips would increase freeway and arterial system delay in the morning peak by about 12,900 hours. This

"Oberto Sausage Company is a diverse, family owned business that genuinely cares about their employees. As a part of their benefits package, Oberto offers their employee's generous transportation subsidies. This past year, the economic downturn and rising gas prices motivated Oberto's management to explore options to help their employees get to work. Since the launch of their Flexpass program in January 2009, nearly 50% of their employees have signed up to use a non-drive alone commute. Oberto has an excellent relationship with the City of Kent's Commute Trip Reduction program. They are truly committed to the community and to their employees overall well being."

*Monica Whitman,
City of Kent*

"In 2007, the greater Seattle area lost \$1.59 billion from congestion in the region – or about \$938 per person traveling in peak congestion."

Texas Transportation Institute

2009 Annual Urban Mobility Report

"The sensitivity analysis indicated that even a small reduction (4 percent) in vehicle trips could also result in significant impact on the transportation network... This reinforces the "tipping point" impact TDM can have on congestion."

Center for Urban Transportation Research

Impact of Employer-based Programs on Transit System Ridership and Transportation System Performance

would be an increase in freeway delay of almost 10 percent, and an increase in arterial delay of almost 6 percent (overall a 7.6 percent increase in combined freeway and arterial delay).⁸

An additional 12,900 hours of delay in the Central Puget Sound Region could increase the region's annual cost of morning peak period congestion by about \$99 million.⁹ This additional cost, in terms of individual time, excess fuel consumption, and freight delays, would cost each morning peak traveler an additional \$59 each year.

Taking the state's annual investment of \$2.8 million in 2009-2011 and considering that delay in the Puget Sound region would be \$99 million worse each year without CTR, the return on the state's investment is 35 to 1.¹⁰

Reducing greenhouse gas emissions and other air pollutants

In Washington, greenhouse gas emissions (GHG) from the transportation sector account for nearly half of the state's total emissions.

CTR Participants reduced their share of emissions of greenhouse gases by 62 million VMT between 2007 and 2009. CTR worksites reduced GHG emissions by about 27,490 metric tons between 2007 and 2009. According to the EPA, a reduction of 27,490 metric tons of CO₂ emissions is equal to burning about 144 railcars' worth of coal, or equivalent to the carbon sequestered annually by 5,861 acres of pine or fir forests.¹¹

Conserving energy

The VMT reduced by CTR commuters means an annual savings of 3 million gallons of gas. At an average price of \$2.60 per gallon, CTR commuters saved \$7.8 million in fuel costs alone.

CTR performance in annual energy and emissions reductions¹²

VMT reduction (miles)	Reduction in Criteria Pollutants (metric tons)						Reduction in GHG emissions ¹³
	Fuel Savings (gallons)	Fuel Cost Savings	Carbon Monoxide (CO)	PM 10	PM 2.5	Nitrogen Oxides (NOx)	
61,505,984	3,029,851	\$7,864,836	454	1.5	1.7	84.4	27,490

⁸The delay change from CTR in this report can't be directly compared to the delay change due to CTR as indicated in the 2007 report. Over the past two years, the Puget Sound Regional Council's model has been modified several times, and the overall system delay in the model is considerably more than it was in 2007. For comparison, the modeling analysis from 2007 indicated an increase in delay of about 6,000 hours of system delay, which represented about 18 percent of total system delay. Additional vehicle trips assumed in 2007 were about 20,000.

⁹The region's annual cost of congestion is estimated by multiplying the change in system delay during the AM peak period for passenger vehicles and trucks by an average hourly value for person and truck travel delay and vehicle operating costs for 2008. The values used for the Central Puget Sound Region are \$21.90 per hour for people in passenger vehicles and \$58.50 for trucks (source: WSDOT, Assessing Cost of Travel Annual Update, WSDOT Urban Planning Office and Freight Systems Division, April 2009).

¹⁰It is important to note that the impacts of the program today are built off previous investments in CTR. The ROI estimate does not mean to imply either that failing to fund the program will eliminate all the benefits, nor that if the investment were doubled, the benefits would also double.

¹¹EPA's Greenhouse Gas Equivalencies Calculator www.epa.gov/RDEE/energy-resources/calculator.html

¹²Based on the difference between 2007 and 2009; roundtrip commute for sites surveyed in 2009 to date (938).

¹³Metric tons of CO₂ equivalent.

Economic benefits

CTR provides economic benefits for commuters, employers and communities. The program provides employers with a framework and partnerships to be “green” and to strengthen their image in the community while supporting their bottom line. As a result, the program leverages substantial local, public and private investment, which significantly expands the impact of the program.

Saving commuters money

The choices made by CTR commuters reduced their personal transportation costs in 2009. CTR commuters saved \$9.2 million in operating costs and \$23.1 million in ownership costs.¹⁴ However, CTR participants aren’t the only commuters that benefit. When individuals reduce their vehicle trips and VMT, they help make the transportation network operate more efficiently for everyone else. This results in time and cost savings for everyone traveling on the system.

Fostering economic development

Economic efficiency and transportation efficiency are closely linked. CTR success supports business vitality and economic development. Employers recognize that CTR helps to retain and recruit employees and can lead to savings from state and federal taxes. More tangible is the savings in parking costs that can be realized. Reducing the need for employee parking can free up parking for customers and create savings that can be used for growing the business.

An example from the downtown Vancouver GTEC illustrates the convergence between transportation efficiency and economic development. Local businesses created the Vancouver Center City Vision, which includes aggressive job growth goals of 8,360 new employees. If 88 percent of these new employees were to drive alone – the current rate in downtown Vancouver – the city would need to add 7,980 new parking stalls at a total capital cost of \$279 million. Realizing the opportunity, the downtown business group has made a goal that only 65 percent of new workers would drive alone to work. This would reduce parking demand

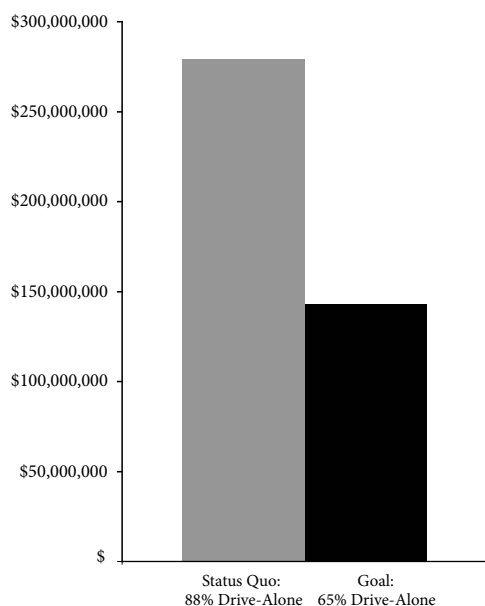
to 4,085 stalls and provide a cost savings of \$136 million.

Leveraging state investment

State investments in CTR have compounding and lasting effects. Employers increasingly match and multiply the state’s investment because it makes sound business sense, and the tools the state provides in performance measurement is an added incentive. In 2004, the latest year for which data is available, employers invested \$49.4 million dollars in their CTR programs, more than \$18 for each dollar invested by the state.

Downtown Vancouver Employee Parking Costs

Total capital cost of different rates of driving-alone



Source: City of Vancouver

¹⁴ According to AAA, it cost drivers 15 cents per mile for fuel, oil, maintenance and tires in 2009. If you consider the cost of car ownership, which includes taxes, depreciation, finance charges, registration, license and insurance, the average cost of owning and operating a car was 54 cents per mile.

“Transportation is the second largest expense for American households, costing more than food, clothing, and health care. Even before the recent run-up in gasoline prices, Americans spent an average of 18 cents of every dollar on transportation, with the poorest fifth of families spending more than double that figure. The vast majority of this money, nearly 98 percent, is for the purchase, operation, and maintenance of automobiles.”

National Complete Streets Coalition

“Commute Trip Reduction efforts are vital for businesses looking to make the most of their human and financial resources. Employers take strongly into consideration the cost of community infrastructure, the importance of conservation, and a commitment to livable growth centers as they make their operational decisions. Smart commuting has become a business imperative.”

*David Graybill,
President & CEO,
Tacoma-Pierce
County Chamber*

"The GTEC program has enabled the City of Tacoma to work closely with Pierce Transit and the Tacoma-Pierce County Chamber towards the common goal of making Tacoma more livable through trip reduction..... As a core group of downtown businesses moves forward in the process of creating a Transportation Management Association, it is clear that, despite difficult economic times, these members recognize the benefits of trip reduction to their individual businesses and downtown Tacoma as a whole".

*Liz Kaster,
City of Tacoma*

Other state investments support CTR performance

Other state investments in managing demand support and complement the CTR program. These focused resources help the program achieve greater success.

Vanpooling growth has slowed with the economic downturn

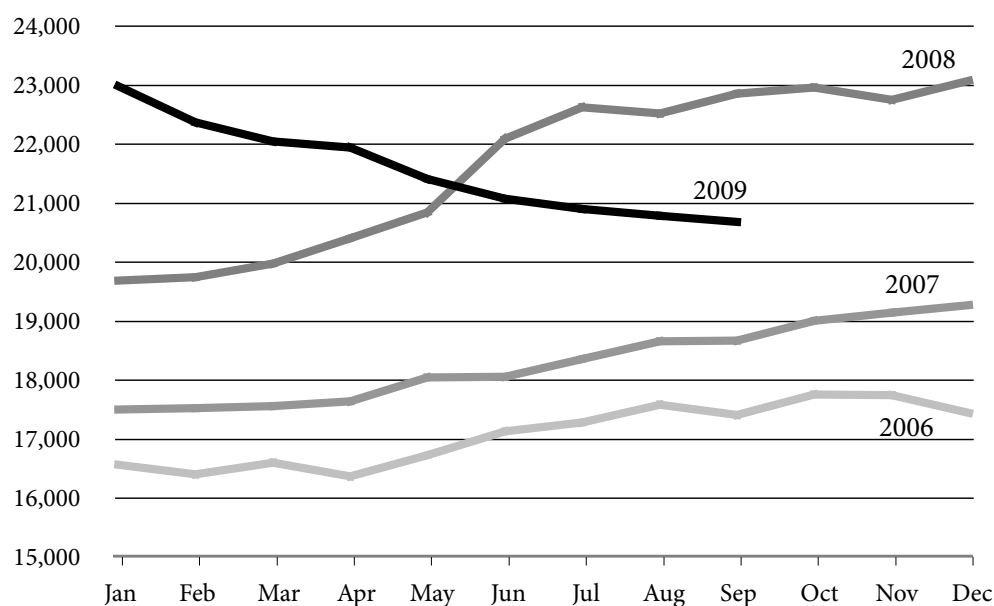
From 2003 to 2008, the number of vans and vanpool riders increased dramatically. The record gas prices in 2008 led to huge demand for vanpooling and caused waiting lists for vans around the state. Vanpooling has a direct relationship to the job market and vanpooling has been directly affected by the economic downturn. Fewer jobs mean fewer commuters, and as commuters in vanpools lose or change jobs, their

vanpool may not have enough riders to stay together. Some employers have cut back on transportation benefits, including vanpool subsidies. In turn, transit agencies have shifted their focus from growing vanpools to trying to keep groups on the road.

I-405 Construction Traffic Mitigation

In 2007-08, WSDOT evaluated the impact of CTR on construction traffic mitigation along Interstate 405 for construction projects in south Bellevue and Renton. The drive alone rate for area worksites was lower during construction. This difference in drive alone rate equaled nearly 3,150 round trip drive-alone trips reduced daily. This performance helped keep vehicles and goods moving during construction while WSDOT achieved its trip reduction targets for the corridor.

Statewide vanpool ridership



Source: Vanpool operator data. Data estimated for July 2009 through September 2009



State agency CTR worksites with data in 2007-08 and 2009-10

	2007-08	2009-10	Percent Change	2011-2012 Goal
Drive alone rate	73.3%	71.1%	-3.1%	66.0%
VMT per employee	11.9	11.5	-3.3%	10.3

Source: CTR survey database

State agencies made progress

Included in the statewide results are those changes seen at state agency CTR worksites in 2009. The CTR law mandates a leadership role for state agencies by directing them to develop and implement CTR programs and to report their progress, performance and recommendations for improvement to agency leaders at least annually. Comparing data from worksites surveyed in both 2007 and 2009, state agencies are making progress in reducing drive-alone trips and VMT.

Kitsap Telework Pilot Project

The results of the Kitsap Telework Pilot project demonstrate that employees are very interested in telework opportunities and accelerating its adoption can support economic development, transportation efficiency and emissions reduction. Using the information collected from surveys of employees and managers, the project described numerous findings that illustrate both the benefits and implementation challenges of telework.

Investments in TRPP projects increased performance

In 2007-09, 27 projects in the Trip Reduction Performance Program (TRPP) reduced 2,918 vehicle trips, removing 8.7 percent of vehicle trips from the baseline measurement. This dramatic reduction in trips over a short time period helped to support overall CTR program performance. In addition, many of these projects were implemented in CTR areas, leveraging the existing program while focusing additional resources on specific strategies to increase performance.¹⁵ The TRPP program was not funded in 2009-11.



¹⁵Measurement of TRPP is based on an analysis of changes in vehicle trips compared to the potential pool of vehicle trips that could be reduced using data from CTR surveys or a commute calendar filled out by participants.

The Kitsap Telework Pilot Project found:

- Telework has real potential as a traffic mitigation strategy during highway and bridge construction.
- Telework can make a significant contribution toward the state's greenhouse gas emissions reduction goals.
- Telework can help businesses and public agencies continue operations in the event of a disaster.
- Telework helps strengthen the business community.
- Telework helps strengthen families and communities.

Evolution of the CTR program

"Being part of the Growth and Transportation Efficiency Center, the activities and outreach that have taken place have definitely increased our CTR goals. Discussions and activities have been taking place about CTR that haven't occurred before."

*Jennifer Burley,
University of
Washington
Tacoma*

"It is my priority to pursue programs and projects that enhance the city's sustainability while keeping the economy vibrant. The GTEC program is a great, successful partner for achieving those goals."

*Mayor Mary Verner,
City of Spokane*

Since the passage of the CTR Efficiency Act in 2006, the CTR program has expanded and evolved. It continues to advance state goals, yet has become more flexible, allowing local communities to develop programs that work for their unique needs and services.

GTECs take hold

In 2007-09, the state provided \$2 million total to seven cities to develop and implement GTEC programs. This program expands CTR beyond major employers to work with smaller employers, schools and neighborhoods within specific geographical boundaries in the state's most congested urban areas. Despite the lack in state funding in 2009-11, all seven programs are continuing some of the elements of their programs in 2010, primarily using federal funding opportunities provided by the American Recovery and Reinvestment Act of 2009.

All GTECs are scaling back their programs and report a drop in services, staff time, and momentum, their continued implementation reflects that these programs are a local priority. Most jurisdictions estimate a further decline in service levels or even program elimination after local match resources run out in a year.

Partnerships are growing

Over time, the CTR program has developed an extensive established network of regional and community partnerships that drive success at all levels. These partnerships offer a strong foundation for the state's demand management efforts and for responding to other challenges with energy and greenhouse gas emissions. Particularly within GTECs, new connections are being forged and long standing partnerships are being strengthened.

For example, the downtown Spokane GTEC has brought the Downtown Spokane Partnership, the chamber of commerce, the city of Spokane, Spokane County, three local universities, Spokane Regional Health District, The Lands Council, YMCA and Spokane Transit together to develop and implement a coordinated strategy towards achieving economic growth goals.

The program engages more commuters and employers

The CTR program and its recent expansion to GTECs provides the opportunity for citizens, employers and neighborhoods to be engaged in being part of the solution to meet the state's congestion, emissions and energy goals. The partnerships created by CTR provide a dynamic forum for businesses to participate and engage in the development of meaningful transportation and environmental solutions.

State leadership is crucial

State leadership and financial support is especially important in times of scarce public resources. The CTR program ensures regional and local governments and employers work together to leverage limited resources for the biggest impact. In a 2003 CTR employer survey, 62 percent reported they would cut CTR education and 36 percent said they would reduce or stop CTR subsidies if state support was eliminated.

The state provides tools and support to ensure that programs are delivered efficiently and that results are measured effectively. For example, in 2009, WSDOT used federal funds to upgrade Rideshareonline, the statewide ride-matching system. When the system launches in 2010, it will provide a statewide comprehensive commute management system for use by employers, local governments, transit agencies and others. This investment will help to achieve

local efficiencies in program delivery and achieve greater consistency in measuring and reporting results.

Flexible work strategies emerge

The use of flexible work strategies like telework and compressed work schedules are increasing. The proportion of commute trips to CTR worksites avoided by teleworking continued to grow in 2009 compared to previous years. The Department of Commerce plans to continue its 2009 pilot that put its employees on a compressed four-day work week. These types of strategies are low-cost, quickly implementable approaches to reducing vehicle trips and an employer's commute carbon footprint. Flexible work strategies can also increase employee performance and job satisfaction and expand opportunities for recruiting and retaining employees.



CTR supports growth management

In the early 1990s, the Legislature created the Growth Management Act (GMA) because it found that uncoordinated and unplanned growth posed a threat to the environment, sustainable economic development, and quality of life in the state. The GMA linked transportation and land use in a decentralized, locally driven framework for comprehensive planning.

CTR plans and programs are required to be consistent with the planning done under GMA. The local goals and strategies established in 2007 CTR plans support local transportation plans and economic growth goals. And the emergence of GTECs has shown a path for transportation, land use, and economic goals to be effectively linked, with engaged businesses collaborating with local government and transit to develop and implement effective solutions.



"The Commute Trip Reduction program provides an important networking link between area businesses around transportation problems and how we can work together to solve them."

North Seattle Community College

"We believe rideshare participation has a direct, positive impact on employee retention, absenteeism, and punctuality, which ultimately promotes increased productivity, company morale and business sustainability."

Sage Manufacturing, Kitsap County

Recommendations to the Legislature

The CTR Board recommends:

- Continuing to invest in CTR
- Keeping the current definition of a major employer in the CTR law
- Exploring funding and policy opportunities for 2011

Continuing to invest in CTR

The CTR program's proven and cost-effective performance provides significant benefits to citizens and businesses. Given the current economic situation, the CTR Board recommends the Legislature continue to invest in CTR and its supporting strategies. Investing in the program helps to provide essential state infrastructure with proven results:

- A 35 to 1 return on investment for morning congestion reduction in the Puget Sound region, resulting in a savings of \$99 million in congestion costs for the region.
- A key link between the private and public sector, compounding investment resulting in \$18 of private investment for every dollar invested by the state.
- Enthusiastic local embrace of CTR and program innovations resulting in vital partnerships and new market successes.

Keeping the current definition of a major employer in the CTR law

The Board recommends keeping the current definition of major employer in the CTR law. The CTR Board has periodically considered recommending a change in the definition of a major employer to help the program reach a greater portion of commuters. The board contemplated this change in 2005 and, at that time, recommended that the definition be revisited after implementation of the new program in order to see how the new concept of a center-based approach, like GTEC, might expand the reach of CTR.

When the CTR Board examined the costs and benefits of removing or modifying the definition of a major employer in 2005, they determined the following:

- Changing the definition of an affected employer from an employer of 100 or more to include employers of 50 or more would add nearly six times the worksites, but only add a little more than double the number of current employees.
- Widening the commute window (Currently set for morning commute between 6 and 9 a.m.) would bring in more worksites and employees.
- Changing the definition from full-time employees to part-time employees would create a number of challenges due to variable schedules and temporary nature of work.
- Lowering the definition from twelve continuous months of employment would bring schools into the program and present challenges given their budget constraints.

So far, GTECs appear to be an effective solution for targeted expansions of the program. The more flexible implementation model provides administrative efficiencies while bringing in more employers and commuters. The CTR Board believes this approach to be more effective than changing the definition of a major employer in the CTR law.



Exploring funding and policy opportunities for 2011

The CTR Board will deliver a comprehensive assessment of the program in 2011, including potential new areas for the program and evaluation of the program's policies and goals. Policy evaluation will include an analysis of the flexibility provided in the CTR law and how this can be supported and strengthened.

As part of its 2011 assessment, the Board plans to recommend that the Legislature consider expanding funding for the program and associated infrastructure. As funding becomes available, the Board recommends the following financial investments:

Targeted expansion of CTR infrastructure

- **Urban area focus/GTEC:** Proven results indicate the GTEC program is performing well. Worksites within GTECs were about nine times more successful in boosting non-drive alone rates between 2007 and 2009. The GTEC program represents the future of the CTR Program because it better targets employers within urban areas where congestion is the heaviest. Without sustained state investment, GTECs will not reach their full potential, and the CTR program may not meet its 2011 statewide goals.

- **Flexible work strategies:** Implementation of flexible work strategies, including telework and flexible schedules, requires state leadership and progressive legislation as observed in other states. Findings from the recent Kitsap Telework Pilot Project indicate that state involvement would help remove barriers to achieving coordinated flexible work strategy implementation.

Other focused investments

- **Expand transit:** Despite growth in ridership, transit agencies are cutting back on service associated with poor revenue generation. Investing in Washington State's transit agencies on the supply side of their operations would ensure their survival and service. This supports Washington's investment in CTR by creating a nexus between employers and attractive transportation choices.
- **Enhance vanpool:** Flexibility in vanpool funding allows operators to target and focus their efforts. During times of growth, new and replacement vehicles are needed; in recession, incentivizing existing vanpools maintains the sustainability of the vanpool program.
- **Target park and rides:** Park and rides should have their own dedicated program to better understand their use and identify opportunities for strategic expansion. This essential linking element extends transit, vanpool and ridesharing reach in many outlying and rural communities.

