

SECTION 6 EMPLOYER OUTREACH

BACKGROUND

The Employer Outreach TERM was adopted by the TPB in the Fiscal Year 1995-2000 TIP. This program provides regional outreach to encourage private sector employers voluntarily to implement TDM strategies that will contribute to reducing vehicle trips to their worksites. The program was designed to increase outreach efforts in ten jurisdictions located in the region. A large share of the funds received by COG for the Employer Outreach program element is passed-through to the jurisdictions for implementation of the program. Commuter Connections assists the sales force with the following services, designed to enhance regional coordination and consistency:

- Computerized regional employer contact database
- Marketing and information materials
- Employer outreach sales and service force training and support
- Annual evaluation program
- Support to Employer Outreach Committee

EVALUATION METHODOLOGY AND DATA SOURCES

Two variables are important for assessing the impacts of a TDM employer outreach program. First is the number of employers offering TDM services and the extent of the TDM programs that they implement. Second is the level of employee participation in alternative modes as a result of the program. These two variables are strongly linked, as other TDM effectiveness research has shown. Higher levels of employer effort can be expected to offer greater incentive to employees to use alternative modes, leading to reductions in vehicle trips, VMT, and emissions.

Employer Participation in Commute Programs

The first of these variables was assessed through data collected by Commuter Connections from sales and outreach contacts with employers. Employer Outreach jurisdiction sales representatives documented the levels of programs implemented by their employer clients in the ACT! contact management database maintained by Commuter Connections. The Employer Outreach program specified services employers offered, for example, transit subsidy, information/promotions, Guaranteed Ride Home, etc.

The Employer Outreach program defined four levels of employer effort: Bronze (Level 1), Silver (Level 2), Gold (Level 3), and Platinum (Level 4), distinguished by the expected increasing trip reduction effectiveness of the services offered and the commitment of the employer, as shown below.¹

- **Level 1 (Bronze) programs** offer only commute information.
- **Level 2 (Silver) programs** offer two or more commute support services, such as: Employee Transportation Coordinator (ETC), preferential parking, carpool/vanpool formation meetings, bike racks or lockers, transportation fairs, telework program with 1-20% of employees participating, and compressed work schedule with 1-20% of employees participating.
- **Level 3 (Gold) programs** include, in addition to the Level 2 services, at least one of services such as transit subsidy or parking “cash out,” telework program with more than 20% of em-

¹ For more details of employer levels, see Appendix 3.

ployees participating, parking fee discount for carpool/vanpools, shuttle to transit stations, comprehensive bicycle/walking program, and company vanpools.

- **Level 4 (Platinum) programs** include two or more of the Level 3 program components, at least two Level 2 strategies, and actively promote the program.

When the Employer Outreach TERM was adopted, the TPB established a goal to be achieved by June 2005 and evaluations conducted for periods through June 2005 measured impacts against this goal. Beginning with the 2005-2008 analysis, new Employer Outreach goals were established for the overall program and for new program activity during the evaluation period. Thus, for the 2008-2011 evaluation, impacts were calculated for “maintained” employer programs and “new/expanded” programs.

Maintained impacts included employers that joined EO before July 1, 2008 and made no changes since that date. Expanded impacts included employers that were involved in EO before July 1, 2008 but expanded their commute assistance services after that date. New impacts included employers that joined the EO program on or after July 1, 2008. A final category was defined to calculate the impacts of employers that were included in the 2008 evaluation but dropped out of EO before June 2011. Commuter Connections determined that the impacts that would have been credited for these employers would have to be replaced by new/expanded impacts. Impacts were estimated for the following groups of employers:

- Maintained – June 2008 employer programs continued with no change
- Expanded – June 2008 employer programs expanded since June 2008
- New – Employer programs started since June 2008
- Deleted – June 2008 employer programs deleted between July 2008 and June 2011

The overall benefit of the program is the sum of continued programs plus expanded and new programs. As shown below, in June 2011, the ACT! database included 1,118 employers with programs that met the Level 3 or 4 definitions. These employers accounted for 465,194 employees. Level 1 and 2 employers were not included in the regional impact calculation because their level of impact would be very small due to the absence of financial incentives or other substantial commute support services.

Of the Level 3 and 4 employers, 569 joined Employer Outreach prior to July 2008 and made no program changes since that time. The expanded category included 267 employers. And 282 were listed as “new” since June 2008. Finally, 182 employers that were counted in the 2008 evaluation were no longer involved in the program. The employee count associated with these employers was smaller (34,404), however, than the number of employees at worksites with new/expanded programs (280,850). Had these employers continued in the program, the total employee count would have been 499,598, so the deleted employees represented a drop of about seven percent.

<u>Employer Status (June 2011)</u>	<u>Number of Employers</u>			<u>Number of Employees</u>
	<u>Total</u>	<u><100¹⁾</u>	<u>100+</u>	
- Maintained/unchanged from June 2008	569	304	265	184,344
- Expanded after June 2008	267	85	182	172,918
- New programs	282	129	153	107,932
Total	1,118	518	601	465,194
Deleted from 2008	182	110	72	34,404

1) Actual number of employers with fewer than 100 employees.

Employee Participation in Commute Programs

The second variable in the impact evaluation, employees' response to the services offered, was more difficult to obtain. Starting mode split data were available for about 500 employers that had conducted a baseline commuter survey prior to implementing the TDM program. But as is typical for voluntary programs, only a few had conducted a follow-up survey by the time the evaluation data were being collected. Because baseline data were available, but post-program survey data were not, the researchers elected to estimate employee behavior changes using the US EPA's COMMUTER Model v 2.0, which estimates worksite mode shifts from inputs on starting mode split and TDM program components. This was the same methodology as was used in the 2008 evaluation.

Starting Mode Split – The COMMUTER model v 2.0 requires several “scenario” inputs, including the type of employer (primarily office or non-office occupations) and the starting mode split. For employers that had conducted a baseline, “pre-program” survey, the actual mode split from the survey was used as the input. But for employers that had not conducted a survey, a starting mode split was assigned that reflected the average mode split that would be likely for employers with similar location and employee work conditions.

These average mode splits were calculated by aggregating employers in the ACT! database that had conducted baseline surveys into six groups, based on two employer/site variables that are known to influence mode choice: 1) type of employer / work performed, either office or non-office, and 2) availability of transit service: low, moderate, or high. Low transit was defined as limited bus service within ½ mile of the worksite. Moderate transit included a higher level of frequency and route availability. To be designated as a “high transit” employer, the site had to be within ½ mile of a Metrorail station and have access to a significant level of bus service.

For each of the six combinations of these two variables, for example, non-office employers with high transit and office employer with moderate transit, an average mode split was calculated from the baseline survey data of employers in that employer group that had conducted commuter surveys.

Program Definition – Employers included in the TERM analysis also were classified by the specific elements offered in their commute program. The COMMUTER model v 2.0 permits direct analysis of strategies, such as transit subsidies, that change the travel cost of one or more modes, and strategies that change the travel time (duration of a trip).

The model also has the capability to predict impacts of telework and compressed work schedules (CWS), when certain parameters of the work hours arrangements are known. The ACT! database indicated employers that had a telework program and, in most cases, the number of employees who were teleworking. Employers that offered telework, but for which participation numbers were not available were assumed to have telework rates equal to the regional average calculated from the 2010 State of the Commute survey. The ACT! database also noted employers that offered CWS, but no participation data were included for any of these employers, so default percentages were calculated from the SOC survey.

Other commute strategies, such as GRH, flextime, information support, and preferential parking, all are treated by the model as elements in a “support package.” They are not modeled separately. Rather the level or extent of the support service package is modeled and the higher the number of these strategies offered, the higher the level of support that is modeled.

The strategy package assigned to an employer was thus comprised of the following potential actions:

- Amount of financial incentives (transit, carpool, vanpool)
- Participation in telework and number of teleworkers (if known)
- Participation in CWS and assumed percentage of employees participating
- Level of transit/rideshare commuter support offered
- Availability of bicycle services
- Availability of a shuttle bus to Metrorail or other transit location

The COMMUTER model v 2.0 was run in a batch format that allowed each employer's program components to be modeled separately. The analysis thus calculated for each employer, the final mode split with the program in place. By comparing the starting and ending mode splits, the percentage trip reduction that would be expected following implementation of the program elements was calculated. This trip reduction was then applied to the number of employees at the worksite to estimate the number of vehicle trips reduced for that employer.

Because travel distance was not available for either individual employees or employers in the ACT! database, the number of VMT reduced was estimated by multiplying the vehicle trips reduced for an employer by the average regional one-way trip lengths for each mode, as measured through the 2010 State of the Commute Survey. Emissions reduced were calculated by multiplying trips and VMT reduced by 2010 regional emission factors. Finally, the individual results for each employer were aggregated to estimate the combined impact of all employers in the TERM. Appendix 3 provides details of the calculations of impacts for Employer Outreach.

EMPLOYER OUTREACH SUMMARY OF GOALS AND IMPACTS

The impacts calculated as described above, were compared against the TERM goals. The total goals and impacts are shown in Table 7.

Table 7
Employer Outreach Goals and Estimated Impacts

	EO Goal	Estimated Impacts
Employer Outreach (all programs)		
• Employers participating - total	581	1,118
- Maintained from 2008	No goal	569
- Expanded after 2008	No goal	267
- New in 2011	No goal	282

- Employers by jurisdiction (continuing and new/expanded)

	<u>Total Employers</u>	<u>Employees</u>	<u>New/Expanded Employers</u>
- Alexandria, VA	51	10,148	23
- Arlington County, VA	159	38,441	33
- District of Columbia	331	146,153	234
- Fairfax County, VA	196	161,871	155
- Frederick County, MD	4	3,468	3
- Loudoun County, VA	11	7,138	4
- Montgomery County, MD	342	73,186	93
- Prince George's County, MD	17	21,999	2
- Prince William County, VA	5	2,590	2
- Tri-County Council, MD	2	200	0

- Employers by size category (Total and New/Expanded)

	<u>Total Employers</u>	<u>Employees</u>	<u>New/Expanded Employers</u>
- Sites with 100+ employees	601	446,969	336
- Fewer than 100 employees	517	18,225	213
- "Equivalent 100+" ¹⁾	182		89

- 1) For purposes of program tracking, employers with fewer than 100 employees are grouped into "equivalent 100+" employers. The 517 employers in this category employ 18,245 employees, thus represent 182 "equivalent 100" employers (18,245 / 100).

Travel and Emissions Impacts and Impacts vs Goals

Overall Employer Outreach Program

	<u>EO Goal</u>	<u>Estimated Impacts</u>
Total Program		
• Daily vehicle trips reduced	64,644	90,350
• Daily VMT reduced	1,065,851	1,657,809
• Daily tons NOx reduced	0.549 T	0.578
• Daily tons VOC reduced	0.343 T	0.367
• Annual tons PM 2.5 reduced	N/A	4.7 T
• Annual tons PM 2.5 pre-cursor NOx reduced	N/A	165.5 T
• Annual tons CO2 reduced	N/A	189,976 T

Participating Employers (net over or (under) goal):	Employers: 537
Transportation Benefit (net over or (under) goal):	Vehicle Trips: 25,706 VMT: 591,958 miles
Emission Benefit (net over or (under) goal):	NOx: 0.029 tons per day VOC: 0.024 tons per day

New / Expanded Employer Programs

	<u>EO Goal</u>	<u>Estimated Impacts</u>
• New/expanded programs	96	551
• Daily vehicle trips reduced	8,618	28,098
• Daily VMT reduced	140,622	461,250
• Daily tons NOx reduced	0.072 T	0.177 T
• Daily tons VOC reduced	0.046 T	0.108 T
• Annual tons PM 2.5 reduced	N/A	1.4 T
• Annual tons PM 2.5 pre-cursor NOx reduced	N/A	48.5 T
• Annual tons CO2 reduced	N/A	55,584 T

Participating Employers (net over or (under) goal):	Employers: 455
Transportation Benefit (net over or (under) goal):	Vehicle Trips: 19,480 VMT: 320,628 miles
Emission Benefit (net over or (under) goal):	NOx: 1.105 tons per day VOC: 0.062 tons per day

As shown, even with the loss of 182 employers that dropped out since 2008, both the overall number of employers participating in the program and the number of new / expanded employers were well above the goals. The results for vehicle trips and VMT reduced also exceeded the goals.

Emissions reduced for Employer Outreach were calculated by multiplying trips and VMT reduced by 2011 regional emission factors. Details of the calculation are presented in Appendix 3.

Note that Employer Outreach overlaps with the Telework TERM. Eight Employer Outreach participants that offered telework also had received assistance from Commuter Connections' Telework program, thus could also be counted in the Telework TERM's "assisted employer" category. And seven employers had received telework assistance under the Telework!VA program. Impacts for this program are reported separately in the conformity analysis. To avoid double counting credits of these employers, the impacts from the telework components of these employers' program were removed from the Employer Outreach TERM total. Impacts of non-telework strategies offered by these employers were included in the Employer Outreach impact calculation.

To estimate the overlap, the COMMUTER model was run for these employers with and without telework. The collective impact (vehicle trips, VMT, and emissions) for these employers' programs when telework was excluded was subtracted from the impact when telework services were included. The difference was considered to be the overlap. This impact was subtracted from the total Employer Outreach impact. The results presented in Table 7 show the adjusted impacts with the overlap removed.

Employer Outreach for Bicycling

A similar exercise was performed to estimate the contribution of bike strategies to Employer Outreach program impacts. The Employer Outreach for Bicycling TERM was adopted by the TPB in the Fiscal Year 1997-2002 TIP. This project provides regional outreach to encourage private sector and non-profit employers with 100 or more employees to implement worksites strategies that encourage employees to use bicycling for commuting.

Two hundred, seventy-four employers offered bicycle strategies in their worksite programs in 2011. The impacts for these employers were modeled "with bicycling" and "without bicycling." The difference in vehicle trips reduced between these two cases was determined to be the bike strategies' share of the impacts. It was assigned to the Employer Outreach for Bicycling TERM component of Employer Outreach.

The VMT reduced for bicycling was estimated by multiplying the vehicle trips reduced by an average one-way trip length for bicycle commuters, of 6.0 miles, calculated from the 2010 State of the Commute (SOC) Survey.

As shown by the results in Table 8 below, the Employer Outreach for Bicycling TERM met all the goals established for the project, by a substantial margin.

Table 8
Employer Outreach – Bike Services Goals and Estimated Impacts

	<u>EO Goal</u>	<u>Estimated Impacts</u>
• Employers with bike strategies	61	274
• Daily vehicle trips reduced	130	180
• Daily VMT reduced	567	1,083
• Daily tons NOx reduced	0.001 T	0.001 T
• Daily tons VOC reduced	0.001 T	0.001 T
• Annual tons PM 2.5 reduced	N/A	0.0 T
• Annual tons PM 2.5 pre-cursor NOx reduced	N/A	0.1 T
• Annual tons CO2 reduced	NA	138 T
Participating Employers (net over or (under) goal):		Bike Employers: 213
Transportation Benefit (net over or (under) goal):		Vehicle Trips: 50 VMT: 516 miles
Emission Benefit (net over or (under) goal):		NOx: 0.000 tons per day VOC: 0.000 tons per day