



Maricopa County

Trip Reduction Program

C o s t S t u d y - A u g u s t 2 0 0 5

Purpose

This study was undertaken to examine the average organization committed expense per employee/student for maintaining a Trip Reduction Program.

The data collected for this study comes from the most recently approved plans of a stratified random sample of organizations with survey dates between April 1, 2004 and March 31, 2005. All organizations in randomly selected sample have had at least one Trip Reduction Plan approved by the TRP Task Force.

The analysis will examine committed expenses in four categories of strategies implemented as part of the TRP Plan by participating organizations. The four categories include:

- Incentives (drawings, prizes to encourage alternate mode usage, point program...)
- Subsidies (bus, carpool...)
- TRP Activities (High Pollution Advisory with employer prizes, bike week...)
- Other TRP Expenses (campus shuttles, inter-company transit...)

The average committed expenses for each category will be obtained by dividing the total committed expense for the category by the total number of employees/students for each employer group. This average will represent the organization committed expense per employee/student for the plan year for each committed expense category. An overall average committed expense for the 279 organizations sampled in this study will also be provided.

Methodology

The organizations included in the 2005 TRP committed expense report were selected from a list of employers with survey dates between April 1, 2004 and March 31, 2005. The list generated a total of 1,110 organizations with a survey date within that time period. The 1,110 organizations have over 624,000 qualifying employees and or students at TRP participating sites.

The 1,110 organizations were divided into 7 distinct groups based on the total number of qualifying employees and or students that were last surveyed. A stratified random sample based on the following categories was utilized to represent each group of participating organizations. 25% of the organizations that are members of each group were used as the data source for this report. The 7 groups are:

- Group A - Organizations with 50 to 100 qualifying employees and or students
- Group B - Organizations with 101 to 200 qualifying employees and or students
- Group C - Organizations with 201 to 500 qualifying employees and or students
- Group D - Organizations with 501 to 1000 qualifying employees and or students
- Group E - Organizations with 1001 to 5000 qualifying employees and or students
- Group F - Organizations with 5001 or more qualifying employees and or students
- Group G - High Schools, public and private, with qualifying employees and or students.

The random sample was generated in the following manner. Each group of organizations was put into its own database, listing each organization in alphabetical order. A random number was generated for each group. Using the random number and the alphabetical list, organizations were simply selected by counting down the list using the random number as the sample selection instrument. The selection of organizations for each group continued until the respective sample size indicated was met. The number of organizations and the sample size are shown in Table I.

Table I - Organization Sample size and Percentages

Group	Organizations	Sample Size	Sample Percentage
A	364	91	25.00%
B	298	75	25.17%
C	236	59	25.00%
D	91	23	25.27%
E	83	21	25.30%
F	15	4	26.67%
G	23	6	26.09%

Group A, for example, has 364 organizations as members. 91 members were selected by random sample to have the committed expense data, found on the last approved TRP plan, included in this report.

Organizations adopt trip reduction strategies as components of their Trip Reduction Plan to encourage employee/student alternative modes of travel to the organization site(s). The typical Trip Reduction strategies available to organizations are broken down into sections on the Trip

Reduction Plan Format. The TRP plan format provides seven sections that organizations may use to select strategies to be implemented during the plan year. Four categories were selected to be examined for committed expenses, Incentives, Subsidies, TRP Activities and Other TRP expenses. Organizations are requested to not include labor costs in any of the committed expenses on the TRP Plan. Table II shows the expense category that each section of the plan was allocated.

Table II - Strategies Organized by Committed Expense Category

Plan Section	Strategy Description	Expense Category
1)	AMU Drawings	Incentive
2)	Other AMU incentives	Incentive
3)	Guaranteed Ride Home	Incentive
4)	TRP Activity	Activity
5)	Carpool/Vanpool Parking	Incentive
6)	Transportation Subsidy	Subsidy
7)	Other TRP Activities	Other

The plan Sections 1, 2, 3 and 5 of the TRP Plan format are related to some form of incentive to encourage alternate mode usage. All values found in these sections of the selected organization plans were totaled as Incentives. Values found in Section 6 of the TRP Plans were used to calculate subsidy expenses. Section 4 provided the values for TRP Activities. Section 7 of the TRP Plan is the area of the plan that is designed to identify TRP activities not found in the other sections of the plan format and were assigned to the "Other" expense category. Most costs found in the "Other" category are fees paid by organizations to extend bus routes or to provide a shuttle between organization sites.

Results

The committed expenses for each of the four categories were totaled for each selected organization and entered into a spreadsheet by organization group. The average expense was calculated using the Total Committed expense for each Category and dividing it by the number of employees/students in the sample for each group.

The committed expenses for each category have been totaled and an average expense generated per employee/student for each group in Table III.

Table III – Total and Average Committed Expenses by Category/Group

Group	A	B	C	D	E	F	G
Organization Size	50 -100	101 - 200	201 - 500	501 - 1000	1001 - 5000	5001+	varies
Organizations Sampled	91	75	59	23	21	4	6
Number of Employees/Students in sample	6,829	10,516	17,556	16,653	42,790	41,982	39,352
Total Committed Incentive Expense	\$78,224	\$83,563	\$75,336	\$100,420	\$75,427	\$10,670	\$14,832
Average Incentive Expense per employee/student	\$11.45	\$7.95	\$4.29	\$6.03	\$1.76	\$0.25	\$0.38
Total Committed Subsidy Expense	\$64,300	\$76,880	\$250,414	\$108,543	\$230,817	\$558,500	\$0
Average Subsidy Expense per employee/student	\$9.42	\$7.31	\$14.26	\$6.52	\$5.39	\$13.30	\$0.00
Total Committed Activity Expense	\$15,003	\$17,985	\$19,148	\$8,535	\$15,775	\$2,860	\$1,110
Average Activity Expense per employee/student	\$2.20	\$1.71	\$1.09	\$0.51	\$0.37	\$0.07	\$0.03
Total Committed Other Expense	\$450	\$0	\$1,860	\$0	\$4,200	\$136,000	0
Average Other Expense per employee/student	\$0.07	\$0.00	\$0.11	\$0.00	\$0.10	\$3.24	\$0.00

Example: Group “B”, organizations with 101 to 200 employees/students, has a total of 10,516 employees/students. The Average Incentive Expense is calculated by dividing the Total Committed Incentive Expense by each Groups Number of Employees/Students. Group “B” has a total committed expense of \$83,563 divided by 10,516 employees/students gives the average committed expense of \$7.95 per employee/student.

To calculate the Average Committed Expense for each group all four categories (Incentives, Subsidies, TRP Activities and Other TRP expenses) were totaled for each group of organizations. Average Committed Expenses by Group are generated by dividing the Total Organization Commitment by the number of employees/students for each group. The average committed expense by Group is provided in Table IV.

Table IV – Average Committed Expenses by Group

Group	A	B	C	D	E	F	G
Organization Size	50 -100	101 - 200	201 - 500	501 - 1000	1001 - 5000	5001+	Varies
Organizations Sampled	91	75	59	23	21	4	6
Number of Employees/Students in sample	6829	10516	17556	16653	42790	41982	39352
Total Organization Commitment	\$157,977	\$178,428	\$346,758	\$217,498	\$326,219	\$708,030	\$15,942
Average expense per employee/student	\$23.13	\$16.97	\$19.75	\$13.06	\$7.62	\$16.87	\$0.41

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Using the committed expenses from each expense category for each group a grand total of committed expenses was calculated for the entire organization sample. The average expense was arrived at by dividing the Total Organization Commitment by the Total number of Employees/students in the sample. Table V provides the overall results for this analysis.

Table V – Average Committed Expense per Employee/Student

Total Organizations Sampled	279
Total Number of Employees/Students in sample	175678
Total Organization Commitment	\$1,950,851
Average Committed Cost per Employee/Student	\$11.10