

# **COMMUTER CHOICE PROGRAM CASE STUDY DEVELOPMENT AND ANALYSIS**

## **PROBLEM STATEMENT**

In the 2001 Association for Commuter Transportation (ACT) End-of-Year Survey, 59 percent of respondents requested that ACT “provide information on TDM-oriented statistics and case studies.” ACT is a leading organization of Transportation Demand Management (TDM) professionals committed to the use of TDM strategies to improve mobility and reduce traffic congestion. However, case studies developed in the TDM field are usually brief anecdotes of (usually) successful trip reduction programs sponsored by employers and implemented at work sites. They provide little or no context for determining characteristics, and they provide no sense of change over time, rather, a snapshot of existing conditions and activities. There is no before and after data. Yet, practitioners want to apply case study observations regarding the causal relationships between the actions and results of a given organization, A, and prescribe the same actions to a different organization, B, expecting the same effect. What typically happens is that organization B will (rightly) claim that the experience of organization A does not apply because of various differences between the organizations. The utility of case studies is thus limited, but requests increase for case studies that can effectively be applied to other organizations. The mirrored conditions between A and B organizations, nevertheless, usually are not similar enough to create confidence in their applicability.

In addition to the case study methodology issues, new research questions have surfaced as a result of CUTR’s recent development of the Work Site Trip Reduction Model and Manual (WTRM). Using a neural network, the WTRM was built with thousands of “before” and “after” plans from employers. The model quantifies the change in average vehicle ridership (AVR) of various combinations of commuter choice program elements. AVR is the number of people transported to a work site for every 100 vehicles. This method documents change over time as a result of the work site’s commuter choice program. Using employee data aggregated to the employer level also captures many complex social and institutional influences that determine the success of a commuter choice program. However, this method does not separate out and identify the influences. In fact, the WTRM only explains about 18 percent of the variance in effectiveness between one program and another that is a direct result of the commuter choice program incentives themselves.

## **OBJECTIVES**

This study investigates which factors, besides combinations of commuter choice program incentives, make work site trip reduction programs effective. The focus is upon the internal conditions of the work site or organizational culture as manifested by the work of the internal champion of the work site trip reduction program (usually the employee transportation coordinator). On the premise that successful programs have supportive management and internal champions who effectively coordinate trip reduction efforts, this study explored the elements that characterize a supportive organizational culture and the behavior of effective internal champions. In addition, researchers applied a rigorous case study approach, adapted from the social sciences (and as articulated by Robert K. Yin, Ph.D and used by the U.S. General Accounting Office Program Evaluation and Methodology Division), expecting that the results thus produced would be more robust, reliable, and useful in the long-term. Properly conceived case studies attempt valid inferences from events outside the laboratory and recognize the influence of context upon outcome. Thus, the scope of the project also included an attempt to disprove the null hypothesis: “The effectiveness of work site trip reduction programs does not depend on organizational culture.”

## **FINDINGS AND CONCLUSIONS**

Researchers found evidence that the null hypothesis is sometimes true: i.e., management support and an effective employee transportation coordinator are not necessary for a successful trip reduction program if the work site is located in an area with access to high quality public transportation and employs lower-income staff who must

choose transportation cost savings over time savings and convenience. However, the evidence also suggests that management support and an effective employee transportation coordinator (ETC) are necessary if the work site is not located in an area with access to high quality public transportation. The study employed four feedback instruments, used in the field of organizational development, to characterize qualities of an effective ETC. Analysis of data collected from 13 participating work sites in the Puget Sound area of Washington State determined that one who fits the “Influencing” work style and behaviors (as determined by the DiSC™ instrument); who expresses warmth, openness, and friendliness and who has less of a need to control outcomes and others (as determined by the FIRO-B instrument); and who values Relations over Work as well as Flexibility and Political Savvy (as determined the by CVAT instrument), is one who will be most comfortable and effective in the role of ETC. An effective ETC may not succeed if management is unsupportive. An effective ETC will have difficulty overcoming work site locational disadvantages unless there is exceptional support for the trip reduction program and motivation given to employees by top management.

The study found several qualities that characterize an organizational culture supportive of a trip reduction program. Some of these qualities describe the nature of the business and not necessarily the organization’s level of motivation to support trip reduction activities. These qualities include the following:

1. Most of the affected employees (those expected to participate in the trip reduction program) remain in an office setting during the work day.
2. Most of the affected employees usually work routine, predictable hours.
3. The work site is in a downtown location.
4. The ETC and his/her supervisor have access to the trip reduction program budget decision maker.
5. Management discourages upper levels of employees from driving alone.
6. The ETC thinks top managers believe the trip reduction program is important.
7. The ETC believes there is adequate trip reduction program funding.
8. The ETC has a high “Influencing” work style, as defined by the DiSC™ feedback instrument.
9. The ETC volunteered for the position.
10. The ETC holds at least a mid-level position within the work site hierarchy.
11. The ETC duties are explicitly acknowledged as part of the person’s overall job.
12. The ETC has served as an ETC for over 5 years.
13. The ETC reports to one person only.
14. The motivation of the work site to conduct a trip reduction program is not solely regulatory compliance.
15. ETC duties require coordination with others.
16. There are work site employees who effectively use alternative transportation and can be pointed to as “champions” of the work site program.
17. The ETC cites no distinction in employee participation in the trip reduction program by salary level.
18. The work site voluntarily participates in the trip reduction program.
19. The work site offers a full transit subsidy to all employees.

The study also included an assessment and lessons learned regarding research design.

## **BENEFITS**

The benefits of this study include (1) providing guidance to employers in the selection of an effective ETC, (2) helping the ETC identify and use more effective behavior in implementing the trip reduction program, and (3) helping TDM professionals, such as TMA directors and commuter assistance program staff, target limited marketing dollars to those work sites identified as most likely to positively respond to TDM programs. Such guidance should contribute to the strengthening of work site trip reduction programs, and increased program effectiveness will result in greater trip reduction.

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