Office of Mobile Sources



TRAQ Technical Overview

Transportation Air Quality Center

Transportation Control Measures: Guaranteed Ride Home









EPA's main strategy for addressing the contributions of motor vehicles to our air quality problems has been to cut the tailpipe emissions for every mile a vehicle travels. Air quality can also be improved by changing the way motor vehicles are used—reducing total vehicle miles traveled at the critical times and places, and reducing the use of highly polluting operating modes. These alternative approaches, usually termed Transportation Control Measures (TCMs), have an important role as both mandatory and optional elements of state plans for attaining the air quality goals specified in the Clean Air Act. TCMs encompass a wide variety of goals and methods, from incentives for increasing vehicle occupancy to shifts in the timing of commuting trips. This document is one of a series that provides overviews of individual TCM types, discussing their advantages, disadvantages, and the issues involved in their implementation.

Guaranteed Ride Home

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Guaranteed Ride Home (GRH) is a Transportation Control Measure (TCM) that ensures a person who does not drive alone has access to an appropriate means of transportation in the case of an unforeseen circumstance. The intent is to overcome one of the barriers to selecting options other than single occupant driving by offering participants a low cost or no cost ride if this should become necessary.

A GRH program may offer rides by taxi, company vehicle, private shuttle, auto rental, or transit passes. These rides may either be offered without cost to the participant or require a co-payment. GRH programs may limit the number of trips

offered to each participant over a certain time period, or the total dollar amount allowed for reimbursement. GRH programs may operate at the employer, municipal, or regional level.

1. Background

The Transportation Research Board found 11 GRH programs in operation in 1989. Since then, several areas have implemented some form of this measure. For example, Baltimore, Maryland instituted a GRH pilot program in 1992 that was evaluated and found to be well received by participants. The program is believed to have retained users of transportation modes such as mass transit and ridesharing who otherwise may have returned to a single occupancy vehicle (SOV) mode. However, the impact of the program on the use of non-SOV options is uncertain.

2. Costs and Benefits

The purpose of the GRH measure is to retain and increase transit and ridesharing (and potentially bicycle and pedestrian use as well) by removing the barrier of not having access to transportation in the event of an emergency, which prevents many people from foregoing SOV travel. To the extent that SOV users switch to a non-SOV transportation mode and emissions decline

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as a result of a GRH program, the air quality benefits can be determined. Participants are usually

surveyed to identify the past travel mode and the role of the GRH program in helping to decide their current mode of transportation. A GRH measure is seldom implemented alone; it is often one element of a larger ridesharing program. Thus, the benefits of this particular measure alone may be hard to estimate.

The total cost of a GRH program equals administrative costs plus the cost of the ride received by participants. Administrative costs include processing reimbursements, marketing the program, and evaluation of the program, if performed. Reimbursement costs depend on the number of participants and whether participants are expected to provide a co-payment. A Los Angeles GRH program found that 1 percent of 6,000 eligible participants used the program over the course of one year, at an average reimbursement cost of \$46 per participant. In Baltimore, the average reimbursement for 287 reimbursed trips was \$31.91. Limiting the number of times a participant can take advantage of the program can keep costs down and prevent abuse of the program. However, this may also discourage participation and reduce the incentive to switch from SOV trips.

3. Implementation

A GRH measure requires no infrastructure to initiate and start-up is relatively quick. GRH may work best when implemented either by large employers or a private/public partnership because this would allow administrative

GRH programs are usually implemented by large corporations or by local government agencies.

costs to be divided among participants. In the Baltimore GRH program, employers were members of a non-profit association called the BWI Business Partnership, Inc. that represents businesses and agencies in the vicinity of BWI airport on several issues. The partnership collects annual dues from members to carry out activities. Funds from these dues were used to operate the GRH program. In other areas, GRH programs are operated by a local government agency such as the county. Employers can offer GRH programs as well. GRH start-up may begin with a survey of employees of current commute mode and interest level in a GRH program.

The program must be clear about what types of situations are eligible for a GRH. For instance, an employee reimbursement for using GRH when working late might be limited to cases where a supervisor approved overtime. In the case of a family emergency, proof might be required for reimbursement. It is also important to indicate who is eligible to participate, how often, any limitations on distance traveled, and limitations on personal stops. Many programs extend GRH only to registered carpoolers or vanpoolers who use that mode of travel at least a minimum number of times per week or month.

The effects of this measure are apparent almost immediately after implementation. In some instances, agreements can be arranged between transit providers (taxi fleets, transit agencies) so participants can use a voucher or pass. In other cases, participants must pay up front and then get reimbursed. The key to program success is to effectively communicate to SOV users that the program will provide a guaranteed ride if they need one, and therefore they can disregard this barrier to ridesharing or transit use.

A GRH is usually implemented in conjunction with an employer or area-wide rideshare program, in which potential carpool and vanpool participants and/or transit users can register or

call a phone number to obtain information on the available commute options. A GRH measure may not be effective in increasing carpooling if not promoted in conjunction with a ridematching service or where available transit exists. Although no programs were found that allowed bicyclists or pedestrians to

GRH programs can be most easily implemented in areas where there are several different transit alternatives.

take advantage of a GRH program, this could be an aspect of the measure.

Results on GRH effectiveness from existing programs are hard to determine. A baseline survey of travel mode and a follow-up survey are necessary to determine the effectiveness of the program. An analysis of the Baltimore GRH program found 114 participants used the GRH service 287 times in 12 months. Overall commute behavior before and after the one-year GRH program remained essentially unchanged. A slight increase in use of transit and ridesharing modes and a slight decrease in SOV mode were found. Evidence indicated that the GRH program retained some users of non-SOV modes who might have returned to an SOV mode without the GRH program. One potential result of a GRH measure may involve participants switching from transit to ridesharing, if transit fares are not reimbursable.

4. Equity Issues

GRH is designed to switch SOV drivers to other means of travel. However, those already using other means of transportation are normally eligible to participate. A GRH program can be designed to benefit all employees or potential participants of an organization. A limitation on mileage or total cost may negatively effect those who live farther away from the employment site. If transit riders are not eligible for reimbursement, demographic groups that depend more on mass transit as their primary means of transportation will be excluded.

5. Summary of Recent Examples

The Baltimore example discussed above has been documented and evaluated. The program was initially a one-year pilot. Upon completion of the pilot, the program was adopted

as a permanent measure. Additional programs are operating in:

- **→** Tucson, Arizona
- **⇒** San Francisco, California
- → Montgomery County, Maryland
- → Denver, Colorado
- → Palo Alto, California
- **⇒** Bellevue, Washington

Limited data is readily available on these programs. The U.S. Department of Transportation has found little existing data on GRH programs, as most areas implementing them do not have a strong baseline for examining the effects of the measure. GRH is a part of a larger rideshare program in many areas, often included in an overall strategy to decrease the number of SOV trips to and from work.

A Washington Post article in the Fairfax Weekly section on June 19, 1997, included the following examples of how GRH helped out two individuals in the Washington D.C. area:

- ➡ William Fong, 29, got a free cab ride from his Washington office after his wife called him to tell him that she was in labor. Fong normally takes a carpool to work. "It gives you peace of mind," said Fong, whose first child Victoria, now is three months old. "You can be sure you will get home on a timely basis if you need to."
- Theodore Garman of Martinsburg, West Virginia was given a free rental car to make the trip home from Washington after getting a call that his wife had fallen and injured herself. He normally takes a MARC train.

6. Sources

- [1] Evaluation of the Baltimore Guaranteed Ride Home Program, U.S. Department of Transportation, Washington, D.C. Final Report (December 1994).
- [2] U.S. Department of Transportation. Guaranteed Ride Home Factsheet. Obtained from the U.S. DOT/FTA Internet web site (www.fta.dot.gov).

[3] Eric Lipton, "A Free Ride When it really Counts", Washington Post, Fairfax Weekly (June 19, 1997).

7. On-line Resource

The Environmental Protection Agency's Office of Mobile Sources has established the TCM Program Information Directory to provide commuters, the transportation industry, state and local governments, and the public with information about TCM programs that are now operating across the country. This document and additional information on other TCMs and TCM programs implemented nationwide can be found at:

http://www.epa.gov/omswww/transp/traqtcms.htm