

TRAVEL DEMAND MANAGEMENT

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WHAT IS TRAVEL DEMAND MANAGEMENT?

Travel demand management (TDM) is an action or series of actions that aim to improve the efficiency and reduce the demand for travel. The Alamo Regional Mobility Authority, in partnership with the Texas Department of Transportation and the Federal Highway Administration, is conducting an Environmental Impact Statement on the Loop 1604 in Bexar County, Texas. Although TDM measures alone won't solve congestion on Loop 1604, these strategies are being used across the nation to reduce the demand for travel.

In an effort to research TDM further on the Loop 1604 corridor, student interns at Michael Baker Jr., Inc. developed a research study to determine the types of strategies currently in place at various organizations located near the Loop 1604 project. The Loop 1604 Intern Team took an in depth look at challenges organizations face and their willingness to implement or enhance programs. The team then analyzed the results of the study and made recommendations that may be useful to organizations in improving or developing programs at their respective facilities. This article is intended to inform the reader about TDM strategies and to encourage organizations to develop or enhance their programs. *Come for a ride with us!*



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The Loop 1604/IH-10 interchange near the University of Texas at San Antonio

TRAVEL DEMAND MANAGEMENT

TDM STRATEGIES

The following are descriptions for common strategies used in TDM programs.

TRANSIT

Transit provides the possibility of moving numerous people at a time to different destinations at various intervals. Transit generally includes bus or shuttle service, light rail facilities, or other mass transit methods. VIA Metropolitan Transit is the primary transit operator in the San Antonio area.

RIDESHARE

Rideshare strategies are where two or more people share their commute by driving together. Rideshare typically includes van or carpools and can be implemented through an organization or by the participating individuals. Not only does this method reduce the number of automobiles on the road, but it also reduces the amount of traffic related pollutants produced and saves participants much of the cost of filling up their gas tanks. Two major tools, one hosted by VIA Metropolitan Transit and one hosted by River Cities Rideshare, match potential rideshare participants to other individuals driving from the same area. A tool called NuRide can also help facilities track the success of their rideshare strategy and encourage participation by providing prizes or other financial incentives.

WALK/BICYCLE

Individuals who live a shorter distance from their destination have the opportunity to walk or ride their bicycle. With adequate and safe infrastructure, sidewalks and bicycle lanes can provide a social environment as well as promote healthy living through physical activity.

FLEXTIME/TELECOMMUTE

Alternating and staggering work or event times can help to alleviate some congestion by allowing employees or event attendees to arrive before or after peak hours of congestion. Allowing people to work a schedule that's more flexible for their needs at home may help to increase retention and productivity in the work environment. Similarly, telecommuting gives the option to work or participate from home.

FINANCIAL INCENTIVES/PRIORITY PARKING

There are a variety of ways that organizations can provide incentives to individuals who utilize car/vanpooling, walking, bicycling, or public transit. Awards, subsidies, reduced pricing for parking or public transit passes, and prize raffling are just a few of the ways that people can be encouraged to participate in a program. Additionally, priority parking is an incentive that is often used to promote ridesharing by giving those who use that strategy the option to park closer to their destination. To encourage bicycling to work, the US House Resolution 1424 §211 provides tax fringe benefits for employers who provide financial subsidies to bicycling commuters. Some insurance companies allow drivers to pay based on miles, so participants of a TDM program can even save money on insurance costs.



The Loop 1604 Intern Team - Lacy and Erik

“Success in putting together effective TDM programs lies in developing four basic ingredients—commitment, constituency, coordination, and continuity.”¹

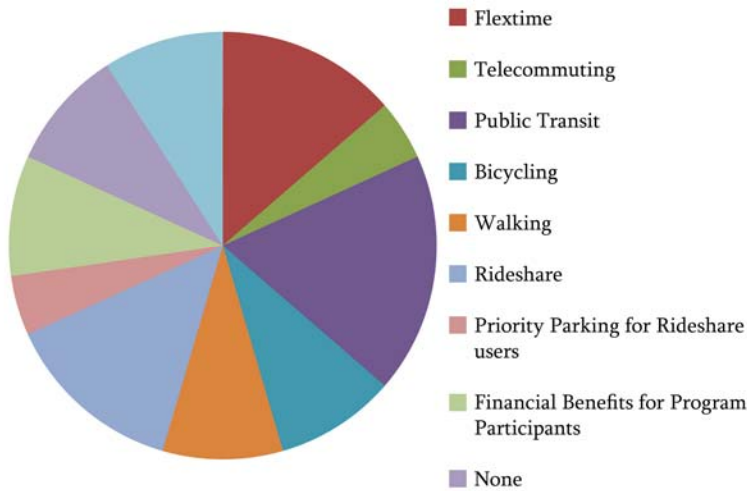
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¹ From *Implementing Effective Travel Demand Management Measures*

QUESTIONS & SURVEY RESULTS

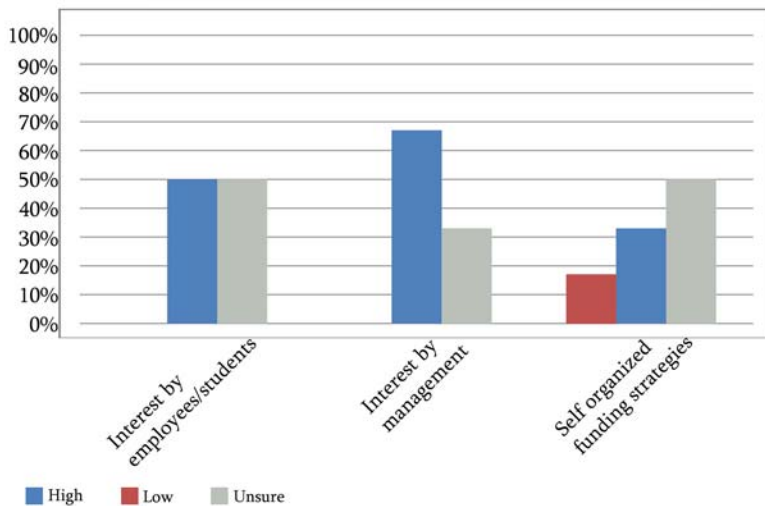
The Loop 1604 Intern Team sent TDM surveys to 92 major employers, community centers, and schools along the Loop 1604 corridor. Six responses were received from three major employers, one community center, and two schools. Below are the results.

“WHICH OF THE FOLLOWING STRATEGIES ARE CURRENTLY IN PLACE OR ENCOURAGED AT YOUR FACILITY?”



Public transit was found to be the most utilized program followed by rideshare. Other types of TDM strategies identified include a university operated shuttle system and a commute reduction rewards program.

“PLEASE EVALUATE THE FOLLOWING IN REGARDS TO YOUR ORGANIZATION’S WILLINGNESS TO IMPLEMENT OR PARTICIPATE IN A PROGRAM TO MANAGE TRAVEL DEMAND IF AVAILABLE.”



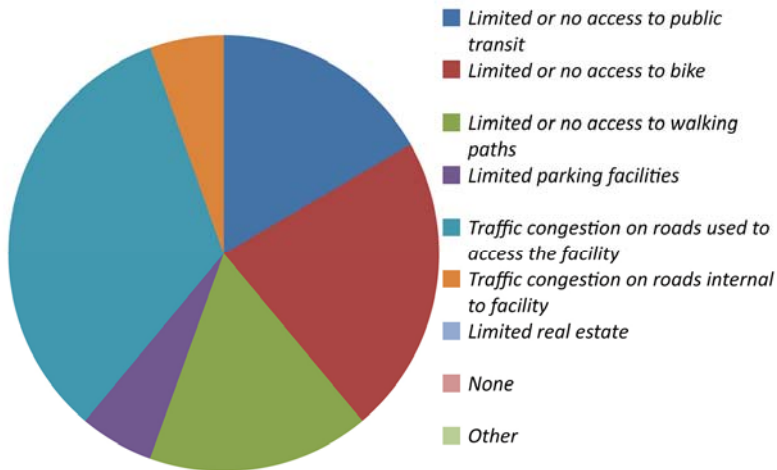
The management at most organizations had a high level of interest in implementing a TDM program. However, many organizations were unsure of the interest to participate at any level of their organization.

“The primary purpose of TDM is to reduce the number of vehicles using the road system while providing a wide variety of mobility options to those who wish to travel.”¹

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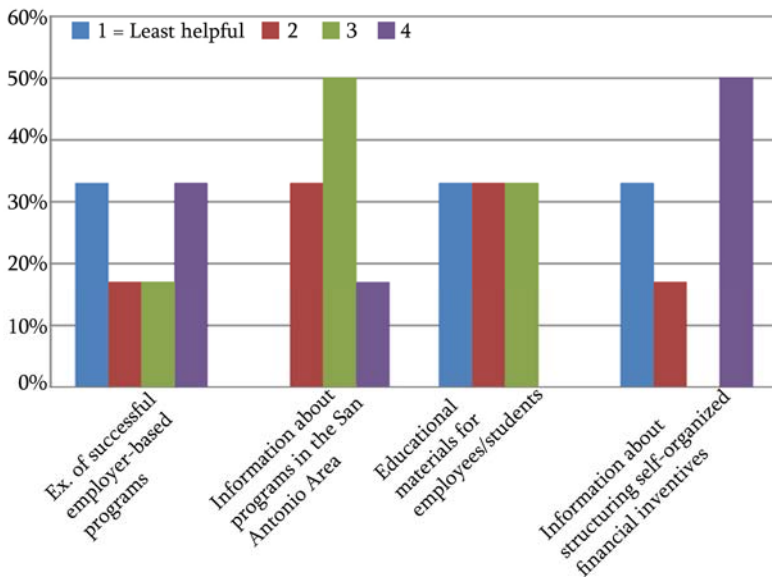
QUESTIONS & SURVEY RESULTS

“WHAT TRAFFIC RELATED CHALLENGES DOES YOUR ORGANIZATION FACE?”



The most common challenge that organizations face is traffic congestion on roads used to access the facility. Most organizations also said that if a better TDM program were presented to them, they would be interested in participating.

“WHAT IMPLEMENTATION TOOLS WOULD HELP YOUR ORGANIZATION DEVELOP OR IMPROVE A PROGRAM TO MANAGE TRAVEL DEMAND?”



Responses varied when asked what types of tools would be helpful to organizations starting or enhancing a TDM program. We took each organizations' response into account when developing our recommendations for them.

“The development of effective TDM programs should be approached from the perspective of how public officials and local employers can work together to meet the goals of providing mobility.”¹

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GENERAL RECOMMENDATIONS

The following recommendations are intended to help readers gain a basic understanding of the types of programs that could benefit their organizations.

FOR MAJOR EMPLOYERS

Major employers typically understand the types of TDM strategies employees are willing participate in and many have existing programs. Our recommendation is for major employers to devise an advertisement campaign to increase awareness and encourage participation. Also, providing educational information, such as this article, may assist employees in making a decision to participate. Incentives for involvement is always encouraged and assisting employees in the cost of their strategy choice is also recommended.

FOR COMMUNITY CENTERS

Due to varying schedules of community center activities, it is often difficult to encourage participation. Our recommendation is to distribute information about nearby transit service and walk/bicycle paths. Encouraging individuals or families that live in the same neighborhood to car or vanpool is also a great way to alleviate traffic in the area. Rescheduling events around peak traffic times will also help alleviate traffic.

FOR SCHOOLS—UNIVERSITIES

Many universities have a variety of strategies in place to reduce the parking spaces needed for students and faculty. By increasing the distribution of information about TDM and its advantages to students and employees, more individuals may participate in these programs. Offering more classes during times of the day when traffic is not congested will reduce cars on the road during peak traffic hours and also help everyone get to class on time. Incentives are always a great way to encourage participation and feedback.

FOR SCHOOLS—GRADE SCHOOLS (K-12)

Families who take their children to school can help reduce the number of cars on the road by ridesharing with families from the same neighborhood. Schools and/or school districts can help families rideshare by matching them with families who have children attending the same schools. Participation can be encouraged through incentive programs. Circulating information about various strategies through parent or student newsletters can also increase participation. If at all possible, employees should also be encouraged to participate in a variety of programs including telecommuting, rideshare, and transit.



Loop 1604 directional signs

“The term *TDM* encompasses both alternatives to driving alone and the techniques or supporting strategies that encourage the use of [various] modes.”¹

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RECOMMENDATIONS—SIX FLAGS FIESTA TEXAS

CURRENT TDM PROGRAMS

Tourist attractions such as amusement parks are unique major employers in that they are generally seasonal operations with many employees that have varying schedules. At Six Flags, since employees are able to have flexible work schedules and access to different TDM strategies, labor efficiency was maximized because of increased morale and productivity. Bus passes are sold to employees at a reduced price and can be used seasonally or year-round. In general, the farther employees have to travel to get to the park, the more likely they are to use transit. Bicycle racks, security, and showers are provided.

Although there are few financial incentives to encourage employees to participate, increasing gasoline prices and subsidized bus passes have made the programs successful. Six Flags has benefited from greater employee retention, but one challenge it faces is that bus service to the park ends before some employees get off work. The park has ample parking for employees and guests. Employee services provide information about available programs through websites and bulletins.

OUR RECOMMENDATIONS

Financial Incentives:

Financial incentives to encourage participation include everything from supplying reduced cost VIA bus passes for employees, entering participants into a prize raffle, or monetary benefits for participating. Another incentive that may be used at this facility is to provide preferential parking and/or reduced parking fees for employees who use a TDM strategy. In addition, having a reduced priced parking fee for employees who participate in a strategy could encourage greater participation. The funds from the small fee may be used on such programs as providing a shuttle service for employees to get to and from the major transit centers.

Rideshare Programs:

Creating a formal car or vanpool program for employees can increase the amount of parking for visitors and alleviate some of the traffic coming into the park. By distributing information about ride-matching tools and increasing awareness about ridesharing, it is more likely that employees will participate.

Bicycle/Walking Programs:

Due to the high volume of employees that live or commute in close proximity to the University of Texas at San Antonio, the bike/walking path along La Cantera Blvd. could be expanded to reach the facility. Also, a VIA Metropolitan Transit Park and Ride Center is near the park and individuals who participate in transit strategies could potentially ride their bicycle or walk to the facility from the Park and Ride Center.

Transit Program:

Due to the fact that employees travel from all over San Antonio, encouraging the use of VIA Metropolitan Transit options is a great way to alleviate traffic near the complex. There are a variety of bus stops nearby and the provision of information about this transit service will be of benefit to employees.



Traffic along Loop 1604 near Stone Oak

“TDM programs should be developed within the framework of overall planning for an area.”¹

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RECOMMENDATIONS—USAA

CURRENT TDM PROGRAMS

Increasing gas prices, employee welfare and retention, and concerns for the local environment drove this employer to develop a comprehensive TDM program. Flextime and a telecommuting strategy allow employees to have flexible schedules. A reduced priced bus pass can be purchased and a number of employees choose to ride their bicycle to work. The facility has the largest vanpool program in Texas and provides service for about 500 employees. The vanpool program is based on the number of people in the vehicle and emergency rides home are provided. USAA contributes to and uses the NuRide Rewards tool that tracks the usage of different strategies and rewards participants with financial incentives including gift cards from different sponsors such as on campus stores and HEB.

The facility posts information on their intranet homepage and they hold an annual Commuter Fair to distribute information. Some challenges the facility faces are vehicular and bicycle safety, congestion, and meeting the demands of participants who'd like more strategies implemented. The facility does not have a parking problem, which they contribute in part to employees who participate in their programs.

OUR RECOMMENDATIONS

Advertise & Inform:

Since an advertising plan is already in place, we recommend that a more formalized and aggressive advertising campaign be pursued to inform and encourage employees to increase participation. Focusing on the benefits of using various strategies is a great way to demonstrate the importance of the programs. One way to reach out to potential participants is to use the marquis or other major signs around the facility. Having current users reach out to help encourage fellow employees get involved is another great way to boost morale and gain higher participation rates. Sending mass reminder email messages or dedicating a website specific to the TDM program provides a common place for people to look up information and post suggestions. Creating a formal advertising campaign will provide fluidity between outreach methods and give a cohesive message to employees about the benefits of participating.

Money Saving Ideas:

Gas prices are ever increasing, therefore, we recommend an increased emphasis on the financial benefits of participating by saving on gas and car maintenance, along with other incentives the company already provides for participating.

Transit:

Since a high volume of VIA Metropolitan Transit bus stops are near USAA, we recommend that employees utilize this strategy as much as possible. Since the campus is large, the distance to the bus stops may be deterring some employees from using this service. One way to encourage more participation in this strategy is to provide an internal shuttle service from each of the buildings to the



Traffic along Loop 1604

“Effective TDM employer programs usually employ a wide variety of TDM alternatives and strategies, each mutually supporting the overall objective of trip reduction.”¹

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RECOMMENDATIONS—NORTHERN HILLS METHODIST CHURCH

CURRENT TDM PROGRAMS

This community center has several TDM programs in place, including a vanpool service for their elderly congregation members. In addition to their regular services, the organization also has a day school and other meetings. Congregation members travel from all over San Antonio and multiple staggered event times are provided. Parking is rarely a problem even though many families do not share rides to the facility's events.

This church is unique in that it offers a designated Sunday service for deaf congregation members and a food pantry for the surrounding area. The deaf congregation members are provided with transportation to the facility upon request. One of the challenges the facility faces is that many of the congregation members and users of the food pantry would like to use transit. However, due to the facility's location, transit is not available nearby and very few sidewalks exist for those that prefer to walk to the facility.

OUR RECOMMENDATIONS

Transit:

One way to encourage more participation is to provide a courtesy shuttle from the major bus stops near the facility coordinated with timing of services or other events, so that employees and congregation members would not need to walk a long distance to the facility. Child pick up for day school from these locations could also encourage participation. Travel training is available for individuals with disabilities or special needs through VIA Metropolitan Transit. Most buses and bus stops are ADA accessible and paratransit transportation services are available for those who are eligible.

Participation Incentives:

Incentives to encourage participation include everything from reduced cost VIA bus passes to congregation members to entering participants into a prize raffle.

Rideshare Programs:

Creating a formal car or vanpool strategy for service and congregation members, school children's families, and employees can alleviate some of the traffic coming into the facility, increase the amount of parking available for visitors, and reduce the amount of money spent on gas. Encouraging the use of ride match tools such as NuRide, VIA Metropolitan Transit, or River Cities Rideshare can help to show participants where potential ridesharers reside. This service could also make it easier to encourage people to log on and participate in incentives offered by some of these programs. By distributing information and increasing awareness, it is more likely that congregation members will participate.

Event Scheduling:

Continuing to encourage congregation members to meet at times less affected by peak traffic periods will help alleviate traffic near the facility. Peak traffic times are between 7:30 and 9:30 AM and 4:30 and 6:30 PM. By arranging child daycare activities between peak traffic periods, tardiness and parent frustration can be reduced. Meetings and services can be held at times that avoid peak traffic periods, as well.



The VIA Metropolitan Transit University Park & Ride Center

“When a TDM program is designed to provide time or financial advantages to the commuter, fewer people will drive alone during the peak.”¹

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RECOMMENDATIONS—THE UNIVERSITY OF TEXAS AT SAN ANTONIO

CURRENT TDM PROGRAMS

As with other large university campuses, parking is often a challenge — which is why the university has developed a variety of strategies for students and employees. The shuttle system saves an estimated 2,500 parking spots from being used and provides about 1.7 million rides each year. Many bus transit options are available to students and starting in June, students and employees will be able to buy reduced priced bus passes. Bicycling and walking are encouraged and bike racks are provided at various locations on the campus. Two or more participants can buy a joint parking pass. The university saves about \$62.5 million dollars in construction costs from their programs. The biggest challenge in regards to TDM is funding. and although parking is sufficient now, the university is expected to grow in the future.

OUR RECOMMENDATIONS

Financial Incentives for Participation:

Increasing incentives to encourage participation include reducing cost of VIA bus passes to employees and students, entering participants into a prize raffle, or providing other monetary benefits for participating. In addition, a reduced parking pass fee for those who participate assists financially.

Rideshare Programs:

Enhancing a car or vanpool program for employees and students can reduce the money participants spend on gas, increase available parking, and alleviate some of the traffic coming onto campus. By distributing information about ride-matching programs and increasing awareness about ridesharing it is more likely that employees and students will participate. Another way to encourage participation is to designate preferential parking to those who rideshare.

Advertise & Inform:

A formalized and aggressive advertising campaign should be pursued to inform and encourage employees and students to participate. This may be through informing participants about the website, creating a Blackboard forum to provide information to the campus, and speaking or distributing information at campus events or meetings.

Bicycle/Walking Programs:

Due to the high volume of students and employees who live within a short distance to campus, encouraging bicycling or walking to campus should be increased.

Class & Event Scheduling:

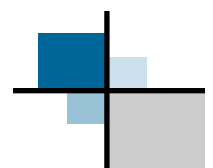
Encouraging administrators to avoid scheduling classes during traffic peak periods will help alleviate traffic near the facility. The peak traffic times near this facility are between 7:30 and 9:30 AM and 4:30



Loop 1604 Eastbound

“Because by their very nature of trying to change human behavior, many TDM strategies are very often difficult to implement. Successful designs of TDM programs call for combinations of actions and action strategies.”¹

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RECOMMENDATIONS—SOUTHWEST INDEPENDENT SCHOOL DISTRICT

CURRENT TDM PROGRAMS

This large school district is unique in that it spans across rural and urban areas. About 7,000 students are provided school bus service and many offer service to students who stay at school for extracurricular activities. Because employees of the various schools commute from all over San Antonio, a formal rideshare program has not been put into place, however, some students' families have decided to rideshare together. Although transit options are available for schools located in urban areas, the rural areas do not have access to transit services. Each school has sufficient parking but one of the challenges the district faces is coordinating TDM programs between schools because of the extensive geographical area the district covers.

OUR RECOMMENDATIONS

Rideshare Programs:

Creating a formal rideshare strategy for employees, school children's families, and event attendees can alleviate some of the traffic coming into the facility, increase the amount of parking available for visitors, and reduce the amount of money individuals spend on gas. Encouraging the facility administration to set up or use existing databases (such as NuRide) to host information about where students' families and employees live in relation to schools can help to show participants where potential ridesharers reside within their zip code or neighborhood. This service could also make it easier to encourage people to log on and participate in rideshare programs. By distributing information and increasing awareness about ridesharing it is more likely that families and employees will participate.

Bicycling/Walking Programs:

Encouraging students and employees who live a short distance from their school to ride a bicycle or walk to school would save families and employees money and provide a form of exercise to participants. Participants who live within a short distance of the facility should be made aware of the risks associated with riding a bicycle or walking to work through a safety training session. There are many benefits of bicycling or walking but participants should be safe on the route to work/school and should use sidewalks and road shoulders.

Future Planning:

School campuses tend to be dispersed over a wide area and the planning for campuses is generally centered on location of a large amount of families with children. When planning for campuses, the amount of sidewalks, relation to transit, and other factors pertaining to increased participation in TDM programs should be taken into account.

Participation Incentives:

There are many benefits to encouraging students, families, and employees to participate. Participants enjoy less frustration while fighting traffic, have an easier time finding parking, and may be more productive and have a higher morale while at school.



A segment of the Loop 1604 corridor

“Experience with TDM programs throughout the U.S. has indicated that there are three major areas where obstacles to implementation seem to arise: motivations, empowerment, and perceptions.”¹

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SUCCESS STORIES

MERCK -
CARPOOLING**Merck—Rahway, NJ**

In response to a statewide demand for more commuter options, Merck devised a carpooling strategy with incentives to encourage employee participation. Users of this strategy get the parking space of their choice whether it is close to the entrance, in a shady spot, or near another amenity.

Monthly raffles of gift certificates are also conducted for those who are willing to get involved in car pooling. The company also provides a ride match tool that organizes employees into groups based on proximity of their residences.

For those willing to utilize transit or van pooling, a subsidy of 50% is offered. Employees that commute by biking or walking are able to shower at the facility and receive a \$1 gift certificate per day of participation.

The results have been quite dramatic. Merck now has 90% more carpoolers, 50% more vanpoolers, and double the amount of transit riders. The company has also reported an increase in employee morale.

CITY HALL -
CARPOOLING**Bellevue City Hall—
Bellevue, WA**

City Hall employs approximately 600 employees outside of the Bellevue City downtown area. Transit is limited and this limitation results in the high use of private vehicles. Because of the lack of alternative modes of transportation, City Hall tried to create other TDM strategies.

Employees who choose to drive alone pay \$30 per month for parking, while those utilizing carpooling or vanpooling at least 60% of the time are allowed to park for free and are given priority parking. Those who carpool or vanpool or use another alternative commute method, commute at least 80% of the time are given a subsidy of \$15—\$25 per month.

GOVERNMENT CENTER
- CARPOOLING**Ventura County Government
Center—Ventura County, CA**

The government facility is located in a suburban area that employs 2,700 people. The site contains an abundant amount of parking and it's not well served by any transit system. To respond to the new air quality control regulation implemented throughout the county, as well as to help reduce the amount of cars on the road, a cash incentive system was implemented based on the number of days that employees rideshare to work. One point is awarded for each day that an employee does not drive alone. Employees who receive a total of 144 points or more are awarded \$300 and those who accumulate 96 points receive \$200.

In an effort to support the program, the county offered a guaranteed ride home program, preferential parking and the inclusion of bicycle facilities. In the first five months, the county's vehicle trips decreased by 13% with only 69% of employees driving alone.



A segment of the Loop 1604 corridor

“An important consideration for the development of a TDM program is the relationship between the TDM alternatives under consideration and the proposed transportation improvement and land use plans for the area.”¹

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HELPFUL RESOURCES

The following internet links are intended to provide the reader with helpful resources that are available in San Antonio and nationally that can assist in enhancing or creating a TDM program to help us all keep San Antonio moving forward.

SAN ANTONIO AREA RESOURCES

- sanantonio.gov/oep/sabikes/mapsTrails.aspx
(San Antonio maps for biking and walking trails)

- sanantonio.gov/oep/sustainabilityplan.asp
(San Antonio Mission Verde Plan)

- aacog.com/commutesolutions/
(Alamo Area Council of Governments TDM information)

- viainfo.net/OtherService/Vanpool.aspx
(San Antonio area VIA Transit information)



Bicyclists on the shoulder of the Loop 1604 frontage road

EDUCATIONAL RESOURCES

- iwalktoschool.org
(provides information for schools and families with children who walk to school)

- apta.com
(provides information on the American Public Transit Association)

- <http://www.bikeleague.org/news/100708adv.php>
(information on the Bicycle Commuter Tax Provision)

- rivercitiesrideshare.com
("The Austin and San Antonio areas join forces to give residents a user friendly, one-stop commuting information site.")

- ops.fhwa.dot.gov
(provides information about Federal Highway Administration)

- americabikes.org
(provides federal funding program information on the benefits of biking)

- bicyclinginfo.org
(provides public policies for pedestrian and bicyclist safety and mobility)

- rideshareonline.com
(provides information on car/van pooling, bus/rail, bike, etc.)

- commuterchoice.com
(commute information to help employers)

- transact.org
(provides information about surface transportation policies)

- telecoa.org
(" the only non-profit organization in the U.S. dedicated to supporting and advancing all forms of telework and telecommuting")

- walkinginfo.org
(policies for pedestrian and bicyclist safety and mobility)

- publictransportation.org
(provides resources on public transit)

- planning.org
(The American Planning Association provides resources for project planning)

- nuride.com
("Get rewards when you walk, bike, telecommute, carpool, vanpool, take a subway, train bus, ferry or even work a compressed week.")

The Loop 1604 Intern Team, Michael Baker Jr., Inc., and the Alamo Regional Mobility Authority would like to thank all the facilities who participated in this study. Your feedback and comments were valuable to the study and we hope this information is useful to you and other members of our community.

The Loop 1604 Intern Team would like to personally thank Michael Baker Jr., Inc. and the Alamo Regional Mobility Authority for their guidance and encouragement throughout the process.

Thanks for taking a ride with us!

