METROPOLITAN COUNCIL

TDM EVALUATION AND IMPLEMENTATION STUDY

SUBMITTED BY: URBANTRANS • AUG 2010

Prepared for:

Metropolitan Council

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Chapter 1: Introduction

1.1. Defining TDM

Transportation demand management (TDM) is a term used to describe a wide range of strategies that makes the most efficient use of the transportation system by increasing person-carrying capacity. TDM strategies can include promoting alternative modes like transit and increasing vehicle occupancy through ridesharing programs. In addition, TDM strategies can facilitate shifting trips from peak-hour congested corridors to off-peak periods or eliminating trips altogether through strategies like telework.

The Metropolitan Council of the Twin Cities region has provided a series of these TDM strategies through their regional TDM program over the last several decades. With help of promotion and marketing at the local level through transportation management organizations (TMOs), the regional TDM program has been a successful venture in promoting and implementing many TDM strategies. Today, the Twin Cities enjoys a mature regional TDM program with four healthy TMOs that work together to assist commuters in ways such as joining vanpools and carpools, biking to work, taking part in the annual Commuter Challenge, paying less for carpool parking permits, finding out about discounted transit pass products through Metro Transit, and working with travelers on construction congestion mitigation. A complete inventory of the TDM products and services offered throughout the Twin Cities region is presented in Chapter 2: Inventory.

1.2. Study Purpose

The purpose of the Transportation Demand Management Evaluation and Implementation Study (TDM Study) is to outline a clear process for selecting, funding, and implementing transportation demand management (TDM) strategies and also structuring and evaluating the Twin Cities TDM program. Through involvement with local TDM partners and researching best practices from TDM programs nationwide, the primary focus of the goals and recommendations in the TDM Study are:

- Improving the structure of the TDM program and the ensuring TDM funding is prioritized for activites and projects that will have the greatest impact
- Developing a clear and transparent funding allocation process for TDM Congestion Mitigation Air Quality (CMAQ) funds
- Conducting regular and consistent evaluation of the impact of TDM strategies implemented by all TDM providers in the region
- Focusing Metro Transit's TDM outreach efforts outside of local transportation management organization (TMO) service areas

These elements were the primary needs identified by the local TDM partners that were engaged during the planning process through a formal Advisory Committee (the members of this Advisory Committee are detailed in Section 1.3). There are supporting policies and strategies for the TDM Study within the 2030 Transportation Policy Plan. These policies are described in Section 1.4.

1.3. Stakeholder Outreach and Plan Composition

The development of TDM Study was achieved through a collaborative process with state, regional, and local organizations that implement TDM. The stakeholders identified for this regional planning process included:

- Metropolitan Transportation Services (MTS), including Van-GO!
- Metro Transit
- 494 Commuter Services
- Anoka County TMO
- St. Paul Smart Trips
- Downtown Minneapolis TMO
- Mn/DOT Metro Division and Office of Transit
- Transportation Advisory Board and subcommittees

These organizations were formally engaged through an Advisory Committee during the entire TDM Study planning process. The Committee helped develop the goals, strategies, and recommendations of the TDM Study through multiple avenues for input.

At the first kickoff Advisory Committee meeting for the plan, members were engaged in a group meeting as well as one-on-one stakeholder interviews to provide knowledge and data about their local organizations and agencies. These interviews also included perspectives and thoughts for the goals and recommendations sections of the plan.

A second Advisory Committee meeting was held in December 2009 to conduct a planning assessment of the strengths, weaknesses, and future opportunities and threats to the TDM program. This information was critical during the evaluation phase of the TDM Study and helped inform the TDM program structure recommendations. The results of this analysis are summarized in Chapter 3.

The Advisory Committee was also involved in the delineation of the goals and strategies established for the TDM Study during third and fourth committee meetings in the winter and spring of 2010. The final eight goals for the TDM Study are listed in Section 1.5 of this chapter. Chapter 4: Recommendations contains a list of detailed strategies to implement each of these eight goals.

1.4. 2030 Transportation Policy Plan Policies and Strategies

The TDM Study is supported by the region's *2030 Transportation Policy Plan* (2030 TPP). Specifically, Chapter 2 of the 2030 TPP advances a transportation system investment policy centered on managing congestion by increasing the person throughput carrying capacity of the system. An important component of this policy and other policies in the 2030 TPP is a strong program of TDM initiatives that help to avoid and lessen congestion.

To further refine the purpose of the TDM Study, the following Policy/Strategies in Chapter 5 of the 2030 TPP were developed for TDM programs. Directly quoted from that chapter, the region's policies for TDM are:

- Increase the use of alternative transportation modes such as walking, bicycling, public transit, carpooling, vanpooling, and flexible work arrangements, such as telecommuting, to reduce vehicle miles traveled.
- Mitigate congestion during the peak periods, special events, and construction.
- Reduce air pollution and energy consumption related to transportation.
- Make more efficient use of transportation infrastructure and services.
- Reduce the necessity of car ownership when other travel choices exist.
- Promote transportation-efficient land development.
- Provide "reverse commuting" assistance for urban commuters to employment locations not served by transit.

These policies from the 2030 TPP formed the basis for the goals and strategies of the TDM program, which are described in Section 1.5 below.

1.5. Transportation Demand Management Program Goals

TDM Study Goal 1: Traveler Focus. Develop a regional TDM program with a wide variety of strategies that are easily understood and utilized by travelers.

TDM Study Goal 2: Program Structure. Structure the regional TDM program and the provision of funds to local TDM partners that ensures resources are maximized toward activities and projects of greatest benefit.

TDM Study Goal 3: Target Markets. Target the geographic areas of the region where TDM strategies will be most successful and would make more efficient use of existing transportation infrastructure and services. National research indicated that centers of high employment and high employment density are the most successful target markets for TDM activities.

TDM Study Goal 4: Strategy Recommendations. The region will invest in TDM strategies with a proven track record of success. These strategies may include those that exist in the region today as well as piloted new strategies from national best practices.

TDM Study Goal 5: CMAQ TDM Funding Process. Allocate future funding for TDM based on monitored performance and sound estimates of impact.

TDM Study Goal 6: Performance Measurement. Develop consistent measurement methods for evaluation of the CMAQ-funded TDM program.

TDM Study Goal 7: New Funding. Develop additional sources of funding for the TDM program.

TDM Study Goal 8: VMT Reduction Goals. The region will track the vehicle miles reduced (VMTR) due to TDM efforts from all CMAQ funded activities. Using a consistent methodology year-to-year, the VMTR will be compiled annually and compared to performance in past years.

Chapter 2: Inventory

This chapter summarizes the key transportation demand management (TDM) programs implemented in the Twin Cities region. This inventory is not an exhaustive list, but highlights the programs that are funded through the Congestion Mitigation Air Quality (CMAQ) program, which is administered through the Metropolitan Council and Metro Transit.

The second component of this chapter contains several succinct summaries about the characteristics of the Twin Cities TDM programs. These include the roles and relationships of the many organizations involved in TDM and a summary of funding sources. These summaries help organize the region's TDM program information so that it can be compared to other national best practices and evaluated consistently in the next chapter.

2.1. Metropolitan Council

The Transportation Division of the Metropolitan Council contains two "subdivisions" that perform important roles in the delivery of TDM services. These subdivisions are Metro Transit and Metropolitan Transportation Services (MTS). The TDM-related functions of these two groups are described in more detail below.

2.1.1 Metro Transit

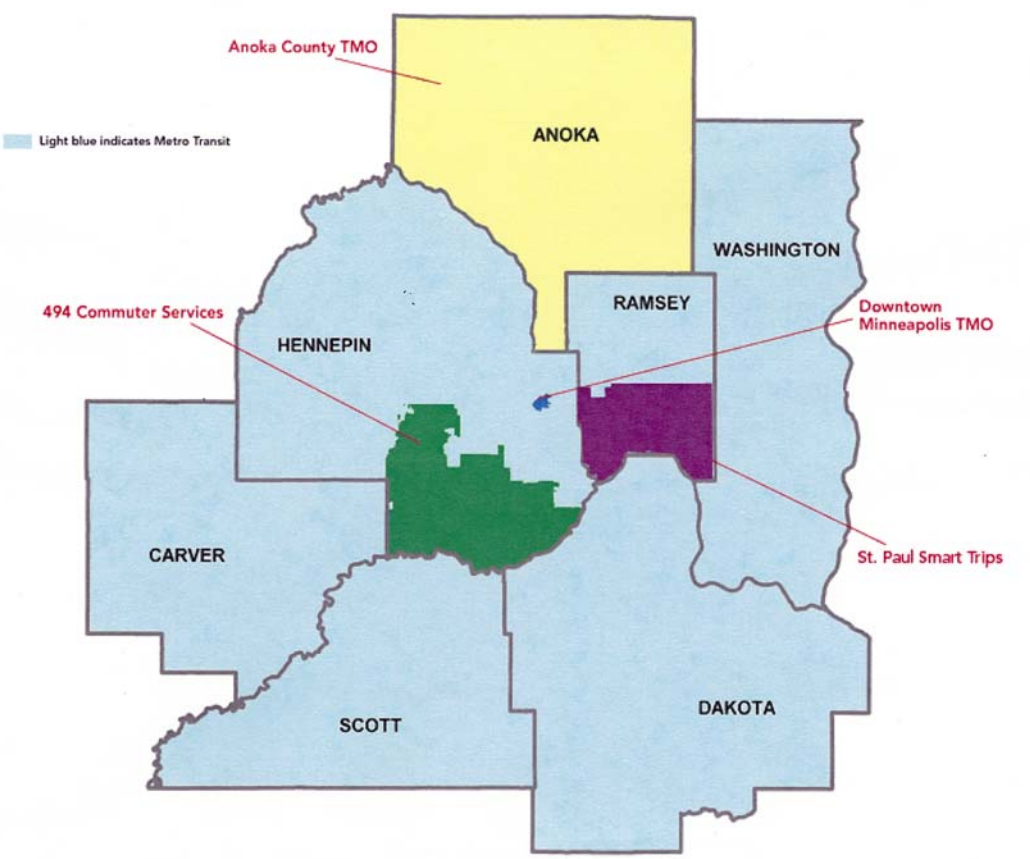
Metro Transit is the direct transit operating subdivision of the Metropolitan Council. The TDM-related services Metro Transit provides include oversight of CMAQ-funded TDM programs as well as implementing regional TDM programs and tools.

On the funding side, Metro Transit administers the application process for all FTA grants including the TDM-related CMAQ grants to local organizations. When the grants are awarded, Metro Transit is also responsible for the oversight and administration of the funded TDM programs. At the conclusion of the CMAQ TDM grant cycle, Metro Transit summarizes the impact of the programs and reports their results to the Metropolitan Council and FTA.

On the TDM implementation side, the programs and tools implemented by Metro Transit include promoting transit and increasing transit pass sales, operating the regional ridesharing program, managing several incentive programs, assisting organizations build telework programs, and administering the regional Guaranteed Ride Home program.

The role of Metro Transit throughout the region depends heavily upon the presence of local transportation management organizations. In areas of the region where TMOs are active, Metro Transit offers assistance and support, particularly by providing incentive programs and tools such as the regional ridesharing database. In the areas of the region where no TMOs operate, Metro Transit is the lead organization promoting, marketing, and implementing TDM services. This area is quite large and Metro Transit must carefully plan their limited outreach and TDM resources for this area (Figure 1).

Figure 1: Metro Transit TDM Employer Service Area



Current efforts

Metro Transit provides several TDM programs and tools for commuters, TMOs, and other TDM groups. The major programs include rideshare planning and matching, a carpool and vanpool parking discount program, guaranteed ride home, transit pass programs, and telework assistance. These programs are described in more detail below:

- Ridesharing. The Metropolitan Council is required to administer a ridesharing program according to Minnesota State Statute 473.375, Subdivision 11. As a subdivision of the Metropolitan Council, Metro Transit is the responsible entity for implementing the regional ridesharing program. Much of the rideshare matching is performed through the online Rideshare Planner, which offers different ways of signing up for a variety of ridesharing opportunities. Commuters can create an account that will allow them to access a variety of Rideshare Planner tools. The "Trip Matching" tool will match Rideshare users with other commuters who will travel the same route for one-time trips. The "Carpool Matching" tool will match users who live near each other and are traveling the same direction and during the same time to share the ride to school or work. The "Vanpool Matching" tool will assist in finding people who live near one another to share a ride to school or work. Users of these tools may also track their trips and their savings in miles and CO^2 emissions by using the Commute Calendar, although there are no financial incentives to do so. Metro Transit is currently in the process of updating their ridesharing tools, including their website and database structure for maintaining and monitoring rideshare matches. A new tool is expected in late 2010.

- Parking Perks for Poolers. Registered Metro Transit carpools and vanpools are eligible to use free parking or receive a reduced rate for parking along specific streets or in specific parking lots and garages located in the cities of Minneapolis and St. Paul. Some parking facilities require approval from Metro Transit or Metropolitan Transportation Services (vanpool), as there are limited spaces. Once the requests have been approved by the agency, carpool or vanpool drivers receive one parking pass to identify that they have a valid permit and are allowed to park in the specific spaces or parking lots at a free or discounted rate. These designated parking spaces and lots also have signs indicating they are only intended for carpools and vanpools.

- Guaranteed Ride Home. Guaranteed Ride Home (GRH) is a form of commuter insurance as commuters are ensured a free emergency ride. This program is eligible for people who commute to work or school by bus, train, carpool, vanpool, bicycle, or by walking a minimum of three days a week. This program is available to people living or working in the Twin Cities metropolitan area and for those who have registered through the Regional Guaranteed Ride Home Registration. Registered participants receive two coupons worth $25 each every six months and registered participants will be eligible to use the coupons for a $25 cab fare, or for an emergency bus or train fare.

- Bike2Benefits. This incentive program encourages commuters to try bicycling one time per week for an eight-week period. If a participant completes the eight-week challenge, they are eligible for a grand prize. Trips are tracked in the Metro Transit web site and registration is conducted online.

- Commuter Challenge. The Commuter Challenge is an annual event held from April through June each year, sponsored by Metro Transit and the four transportation management organizations. The program challenges individuals to pledge to try one or more alternatives to driving alone during the three month period. Registration in the event automatically enters participants for grand prize drawings. The primary goal is to convert commuters who drive to work in single occupant vehicles into using another transportation alternative.

- Commuter Choice Awards. This event is held annually and its purpose is to recognize organizations in the region that do an outstanding job promoting transportation alternatives and implementing TDM programs. Employers nominate several dozen companies each year for a handful of top awards (e.g., Exceptional Company Involvement, Corporate Leadership, Outstanding Promotion).

- Specialized Transit Pass Products. Metro Transit provides commuters the opportunity to save money by offering a variety of specialized transit pass products. These products are designed to fit the specific needs of certain groups and benefit a variety of users.

    - The Metropass is available to companies with ten or more employees and a minimum of five transit users. This product offers employees unlimited rides and is a permanent pass available to employees as long as the company is in the program.

    - The GoToCollege pass is an unlimited ride pass program available to the students of the 76 colleges and universities of the Twin Cities region. Depending on location and available transit service, the pass cost is between $140 – $170 per semester.

  - The TransitWorks! pass product is available through stored value cash cards between $10-$40 or a 31 day unlimited monthly pass. Employers can choose to subsidize these passes and offer them to employees at a discounted rate.

- Regional TDM Database. In addition to the commuter programs described above, Metro Transit also manages data for many of the region's TDM programs. They work with the four TMOs to update this database from local marketing and outreach efforts. The RidePro database includes data on programs such as:

  - Guaranteed Ride Home
  - Carpool and vanpool parking space registration and payment of the monthly incentives for participants in this program
  - Employer outreach contacts
  - Vanpool registration, including Van-GO! and private vanpools
  - National Transit Database reporting
  - Bike2Benefits incentive program
  - Vanpool reporting web site

Funding

The primary funding source for Metro Transit's TDM programs is the CMAQ program. The Metropolitan Council has historically applied for and received CMAQ funding from the federal government and, typically, Metro Transit uses about half of the TDM funding for its own program. The remaining half is allocated to local TDM service providers. In 2008, Metro Transit received 58 percent ($1.595 million) of the region's CMAQ TDM funds. The 20 percent local match required for these CMAQ funds is provided by the State of Minnesota, Metropolitan Council, local governments, and operating funds of Metro Transit.

Evaluation

Metro Transit maintains records of registration of carpools and vanpools in their database as well as the participation in their programs, particularly events like the Commuter Challenge. Results for 2008 are summarized below:

- Regional Database. 16,900 carpool matches were attempted, and out of these attempts, 13,900 matches were made. Also, 2,200 carpools were added in 2008 and 2,000 were deleted or purged. No data on actual carpool formation or how frequently matches actually carpool is maintained; however, Metro Transit assumes 5 percent of matches in the database actually start sharing a ride.

  - Assuming the 5 percent rate, the estimated vehicle miles of travel savings is 24,846,000 miles. This result is calculated using standard trip distance information for the region as well as assumptions on the frequency of travel in a carpool (assumed 3 times per week).

- Commuter Challenge. 15,000 commuters pledged to try transit, bike, walk, or rideshare over the three-month period of the challenge in 2008. When surveyed, nearly 93% of the people who drove alone before their Commuter Challenge pledge now use alternatives to driving alone more frequently.

- Bike2Benefits. In 2009, the program had 2,900 members with an estimated 375,500 bike and bike-transit miles logged.

2.1.2 Metropolitan Transportation Services

Metropolitan Transportation Services (MTS) is the second "subdivision" of the Transportation Division that is engaged in TDM programs and services. From a policy standpoint, MTS provides the formal link between the local TDM programs and the Metropolitan Council and Transportation Advisory Board. MTS also oversees the TDM-related components of regional transportation planning and funding through the biennial regional allocation of federal Surface Transportation Program funds.

In addition to its policy and Metropolitan Planning Organization (MPO) functions, MTS operates several transportation services related to TDM. The primary transportation service is the Van-GO! vanpooling program, which is described in more detail below. In addition to vanpooling, MTS also operates two contracted services: Metro Mobility, a paratransit service offered only to ADA certified riders and Dial-A-Ride service, a county-based shared-ride service reserved in advance.

2.1.2.1 Vanpooling

The MTS Van-GO! vanpooling program has been in operation since 2000 as a region-wide transit option for long-distance commutes. The intention of the program is to serve trips that are impossible or unrealistic to serve with regular fixed-route transit service within the region's regular route service area, as well as areas outside of the transit-taxing district where regular route bus and rail services do not exist. The vans are administered and funded through the Council and day-to-day operations and maintenance are handled through a contract with a third party vendor, currently VPSI, Inc. Van-GO! is a regional service that primarily depends on local TDM providers, such as the transportation management organizations, to promote and market vanpool services. In addition to the Van-GO! vans, there are 20 private vanpools operating in the region that are provided Guaranteed Ride Home and the Driver Rewards program (described below). Including Van-GO! and private vanpools, the program contains over 80 vans and, since inception, has consistently grown the number of vans in operation.

<u>Current efforts</u>

As of November 2009, there were 85 vans in operation in the Twin Cities region. Many of the vans originate outside of the seven country region and terminate at employment centers within the region. Some vans also reverse commute from inside the seven county region to employment locations outside of the Metropolitan Council area. Many of the privately owned vans originate in Wisconsin and are destined to Anderson Window Corporation just inside the eastern boundary of Washington County. The characteristics of the current vanpool program are as follows:

- 59 Metropolitan Council Van-GO! Vans, divided by the following:
  - 27 vans originate from **within** the seven county region
  - 21 vans originate from areas **outside** the seven county region (collar counties)
  - 11 vans originate from Wisconsin
- 20 privately owned vans, 17 from Wisconsin (independent from Van-GO!)
- 6 City or Company sponsored vans (independent from Van-GO!)

Drivers and passengers have several incentives to operate a van on behalf of Van-GO! These incentives include:

- Full leased van provided by Van-GO! with a $1 million insurance policy for personal liability
- Full maintenance coverage

- Roadside hazard assistance program
- Access to fuel card program tied to van lease billing cycles
- The driver rides free and can use the vans for some personal trips up to 200 miles per month.
- Reduced passenger fare cost through the 55 percent lease subsidy provided by the Metropolitan Council (roughly $86 per person per month)
- Guaranteed Ride Home
- Driver Rewards, which offers $100 cash incentive to the driver for their first six months of continuous service and $100 per year thereafter. Backup drivers receive $50 after the first six months and $50 per year thereafter.

The minimum requirements to start and operate a Van-GO! van include:

- Registration with MTS in the regional rideshare database
- Driver and passengers must live **or** work in the seven county region
- Vans must carry at least 5 passengers an average of 3 days per week
- The routes of the vans must not duplicate any regular bus or rail service
- The driver must be over 25 years old, have a clean driving record, good credit rating, and complete VPSI driver safety training.

Van-GO! Funding

The Council subsidizes 55 percent of the individual Van-GO! van lease cost through a mixture of Congestion Mitigation Air Quality (CMAQ) and other federal funds, local taxes, and passenger fares. For the 2008 program year, Table 1 describes the funding sources and their amounts.

Table 1: 2008 Van-GO! Funding Sources

Funding Source	*Amount*	*Percentage*
Federal sources:		
CMAQ	$50,240	**4.1%**
Job Access Reverse Commute	$70,000	**5.6%**
Section 5307	$449,217	**36.2%**
Local sources:		
Metropolitan Council (UPWP)	$68,076	**5.5%**
Passenger Fares	$505,372	**40.7%**
Motor Vehicle Sales Tax (MnDOT)	$98,277	**7.9%**
Total	**$1,241,182**	**100%**

Evaluation

Participation in the Van-GO! is carefully tracked by the Metropolitan Council. For the 59 vans subsidized by the Van-GO! program, the annual vehicle miles of reduction is just over 9 million miles. Table 2 below displays the 2008 results of the Van-GO! program as maintained through

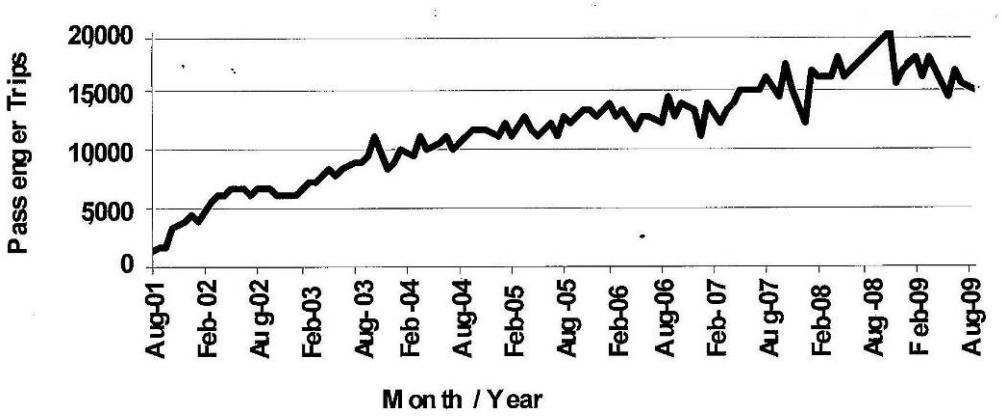
the Metro Transit ridesharing database. Note this table does not summarize the participation by privately owned vanpools.

Table 2: 2008 Results of the Van-GO! program

Measurement	*Result*
Number of vanpools added	**28 vans**
Number of vanpools deleted	**0 van**
Total registered vanpools	**85 vans**
Total vanpool participants	**758 people**
Number of vanpool matches attempted	**7,823 attempts**
Reduction in vehicle miles due to registered vanpools	**9,038,797 miles**
Operating subsidy	**$3.50 per passenger**

Since its inception in 2000, the Van-GO! program has consistently added drivers, passengers, and vans to the program. With the exception of the steep increases in gas price in 2008 and its associated drop in vanpooling after prices settled in 2009, the growth in vanpooling has been consistently strong throughout the life of this program (Figure 2).

Figure 2: Historical Van-GO! vanpool ridership



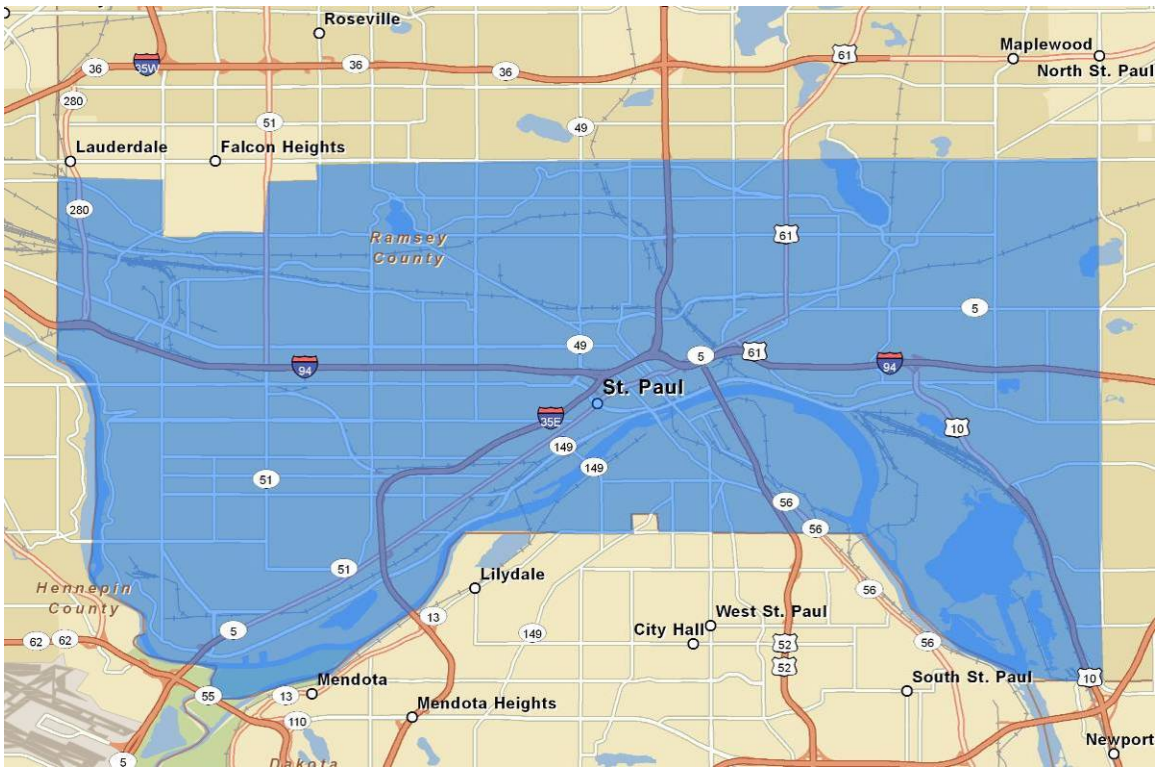
2.2. Transportation Management Organizations

Four unique transportation management organizations (TMO) serve specific activity centers and areas in the Twin Cities region. These organizations are typically governed by a Board of Directors composed of local agencies, business leaders, and community stakeholders. They have traditionally focused on large employers and the commute trips associated with their employees; however, several of the TMOs are looking to apply TDM strategies to new traveler markets and non-work commute trips. The Metropolitan Council has a long history of supporting the work of TMOs through CMAQ funding and planning policy. In addition to implementing their own local TDM programs and strategies, they serve a critical role in promoting and marketing the regional transportation services provided by MTS and Metro Transit.

2.2.1 St. Paul Smart Trips Transportation Management Organization

The St. Paul Smart Trips TMO serves the City of St. Paul, including downtown business district employees as well as the employees and residents of adjacent city neighborhoods. The boundaries of their service area are synonymous with the municipal boundary of the City of St. Paul, yet their programs likely reach many employees who live outside the City in the broader Metropolitan Council region (Figure 3).

Figure 3: St. Paul Smart Trips Service Area



The TMO has recently made a strategic decision to target the residential neighborhoods of St. Paul with new and specialized TDM programs. The 2008 Summit-U residential Individualized Marketing pilot program was created from this strategic decision and specifically targeted the Summit-University neighborhood just west of downtown St. Paul. In 2009, the TMO built upon the success of the Summit-U program by implementing another individualized marketing program in Union Park neighborhood.

Current efforts

The current programs of the TMO are focused primarily on two traveler markets: the employee and the urban residential traveler of St. Paul. The TMO programs consist of:

- Individual employee commuter services. These services include customized travel plans and enrollment in commuter challenges. In addition, staff educates employees about pre-tax benefits, MetroPass, downtown parking for carpoolers, and other transportation incentives.
- Employer services. These services include new employee orientations and commuter surveys.
- Residential individualized marketing at the household level that includes pre and post surveying, communication pieces, individual trip planning assistance, and various "try-it" incentives.
- Promotional efforts at employers, including transportation fairs, relocation assistance, and enrollment into regional promotions like the Commuter Choice Awards program and the Commuter Challenge.
- A web site serving as a primary portal to describe available TDM programs and spread awareness about transit, ridesharing, telework, bike/walk, and parking programs.
- Advocacy efforts including working with the Central Corridor LRT planning project and coordination with land use development concepts. In this process, the TMO represented the pedestrian and bicycle travelers, looking specifically at how they can access future station sites.

Funding

The TMO is funded primarily by the federal CMAQ program. They use several local funding sources to comprise the 20 percent match required by CMAQ. The 2009 funding amounts, sources, and total funding for the organization is detailed in Table 3.

Table 3: St. Paul Smart Trips TMO 2009 Funding Sources

Source	*Dollars (2009)*
CMAQ	**$232,000**
Non-Motorized Transportation Pilot Program	**$112,000**
City of St. Paul	**$8,000**
Ramsey County	**$10,000**
McKnight Foundation	**$40,000**

Evaluation

The TMO currently monitors the effectiveness of their residential individualized marketing programs and have complete data for the Summit-U program implemented in 2008. Measurement methods included a pre- and post-neighborhood-wide phone survey, participant surveys, bicycle/pedestrian counts, and discussion with partners. Importantly, the TMO also selected a

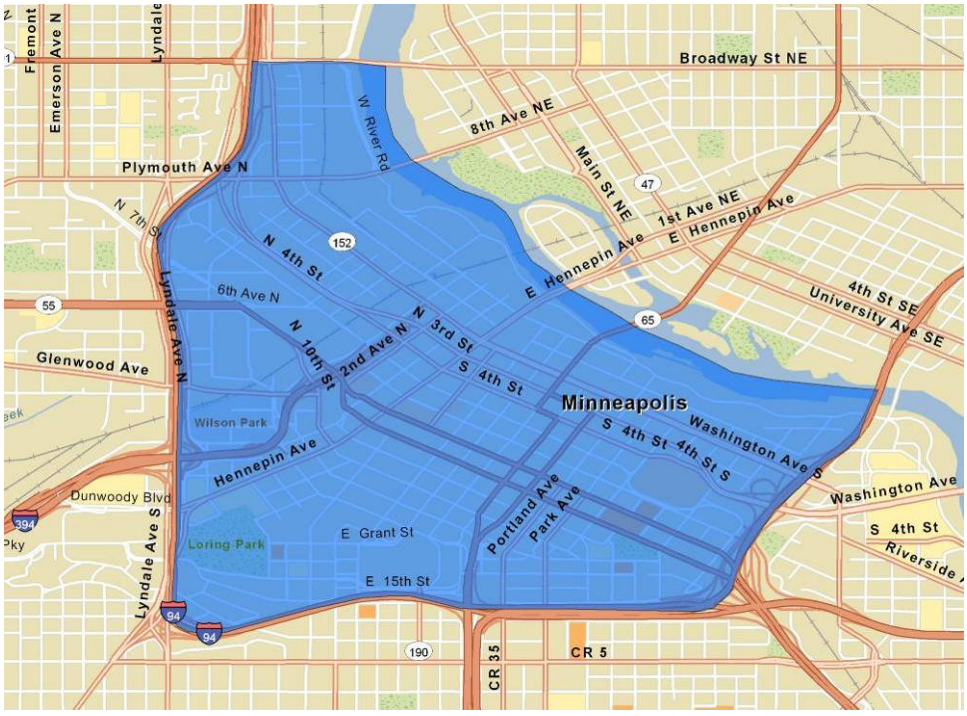
control group to monitor more carefully if changes in mode share and vehicle trips were due to the individualized marketing program or other confounding externalities. Program highlights for the Summit-U neighborhood include:

- Bicycling and walking trips increased 33 percent in comparison to the control group.
- Using regional transportation averages on trip length, these bicycling and walking trips account for the equivalent of 153 vehicle miles per day during the program period.
- There was no statistically significant change in ridesharing or transit use.
- Drive –alone trips decreased by 21 percent. However, the control group also experienced a decrease in drive-alone trips by 24 percent.
- 8.6 percent, or 612 households, either ordered materials or participated in events.

2.2.2 Downtown Minneapolis Transportation Management Organization

The Downtown Minneapolis TMO (DMTMO) serves the downtown Minneapolis central business district with its workforce of approximately 135,000 employees. The borders of their service area include I-94 to the south and west, the Mississippi River to the north, and I-35W to the east (Figure 3).

Figure 3: Downtown Minneapolis TMO Service Area



The DMTMO has four goals: Commuter Connection, outreach, education, and advocacy. The DMTMO's programs primarily focus on downtown employees and providing transportation information, products, and travel planning assistance. Their primary marketing strategy is the operation of their combined store and office, the Commuter Connection, which sells transit passes and bicycle accessories, registers interested candidates for ridesharing, sells carpooling parking permits, and provides various other services and information details on all modes of

transportation. Located in a skyway in central downtown, this store is constantly busy with employees and other travelers in the downtown area.

Current efforts

The following is an overview of DMTMO's primary products and services as they relate to each of its goals:

- Commuter Connection. Commuter Connection is a one-stop shop for transportation information and services, is located on the skyway in central downtown. Among its information and services are:
    - Selling Metro Transit transit passes and regional bicycle maps,
    - Registering and renewing carpools
    - Individualized trip planning
    - Maintaining wait lists for carpool parking at public and private parking facilities
    - Taking MetroPass pictures
    - Providing skyway maps with walking distances
    - Providing hands on learning for using the bus bike rack
    - Distributing information on behalf of other agencies such as Van-GO!, Guaranteed Ride Home applications, MnPASS, City of Minneapolis downtown bike trails and policies, MnDOT's bike rules of the road, and discounted carpool parking maps and brochures.
- Outreach. Outreach efforts serve primarily two markets: the employers and building managers/owners. The services and programs themselves are designed to reflect the particular needs and characteristics of each market.
    - Employer services include consulting and implementation assistance on pre-tax transportation benefits, discount transit programs, Van-GO!, discounted carpool parking and ridematching services, guaranteed ride home, and special focuses such as eWorkPlace. DMTMO provides an online new employee commuting resource kit specifically designed for the downtown workforce. The DMTMO provides commuting information at employer benefits and health fairs as well as conducting commuter fairs.
    - Building managers/owners services include consulting on programs and services that inform and facilitate use by tenants and tenants' employees of commuting options, provide data that helps to market the advantage(s) of particular properties and conducts research for those interested in applying for LEED alternative commuting credits. On behalf of the City of Minneapolis the DMTMO assists new developments meet their TDM commitments and reporting obligations. The DMTMO participates in the Building Owners and Managers Association (BOMA) annual vendor fair.

  - Both outreach markets participate in regional campaigns such as Commuter Challenge and the Commuter Choice Awards. Both markets use the DMTMO services for relocating employers moving into downtown. The DMTMO sponsors commuter fairs at buildings and large employers that includes commuting information, a portable bus bike rack display, and invites several transportation related organizations of interest to the downtown community.

- Education. The DMTMO undertakes several education efforts including their website (www.mplstmo.org), emailed newsletters and announcements, brown bag lunches for employees on such topics as bicycle commuting, lunch & learns for employers that focus on single topics such as pre-tax transportation benefits, and Transportation Summits for employers that cover several timely topics.

- Advocacy goal is primarily met by providing an opportunity for dialogue between the sixteen member Executive Committee members and public sector representatives on transportation issues.

Periodically, there are unique opportunities for TDM programs and strategies in the downtown area. For example, the DMTMO played a key role in assisting employers and employees prepare for two major bus strikes over the past 15 years, commuting after the collapse of the I-35W bridge, and the expected gridlock during afternoon peak period during the 2008 Republican National Convention (RNC). During these times, the DMTMO conducted major campaigns to assist employers and their employees with commuting choices and trip planning. The marketing included creating informational packets for employers to distribute, mailings/emails, holding special meetings and speaking at other organizations' meetings.

Funding

The DMTMO is funded primarily through federal CMAQ funds. The DMTMO earns the 20 percent local match from contracts they hold with Metro Transit for transit pass sales and carpool registrations at the Commuter Connection store. In addition, they make a small amount of profit on bicycle map sales. They have a reserve account they use for funding shortfalls. For the short term, they are also receiving assistance from the MnDOT eWorkplace.

Evaluation

The DMTMO monitors its program components in detail as services are performed. They track pass sales, carpool registrations, and outreach events and attendance. They also track company participation from their service area in regional events like Commuter Challenge. In the past, the DMTMO has met or exceeded the performance goals assigned by the Metropolitan Council, the DMTMO Executive Committee, and others.

In 2008 specifically, the DMTMO has estimated its efforts in transit pass sales, carpool registrations, and Van-GO! promotion has resulted in an annual savings of 28.85 million vehicle miles of travel, 2.27 million vehicle trips, and approximately 6,500 tons of CO_2 emission savings. Table 4 details these estimates by mode.

Table 4: 2008 Participation and Estimated Impacts

Mode	*Participation (registration, pass sales, etc)*	*VMT Reduced (estimate)**	*Trips Reduced (estimate)*	*Tons CO_2 Reduced (estimate)*
Carpool	1,634	9,913,805	784,320	**4,925**
Vanpool	104	630,989	47,280	**193**
Transit				
MetroPass	1,398	11,813,445	934,608	**886**
GoTo College Pass	5,146	6,492,587	502,172	**487**
Total	**8,282**	**28,850,825**	**2,268,380**	**6,492**

* Assumes an average 25.28 mile commute distance and 240 days per year

2.2.3 Anoka County Transportation Management Organization

The Anoka County TMO is unique for a TMO given it provides service to all of Anoka County and is within a department of the County, rather than a stand-alone non-profit organization. This is in contrast to the other TMOs that provide service to a smaller sub-area, corridor, or activity center. The Anoka County TMO serves commuters traveling on four major transportation corridors (I-35E, I-35W, TH10, TH65) located in Anoka County. Given its large service area, the TMO serves various traveler markets in different areas of the County, including residents and households as well as nearly 2,000 local employers (Figure 4).

Figure 4: Anoka County TMO Service Area

Anoka County has a large residential of 315,000. The County is a net exporter of workers to other communities and this influences the services and facilities provided for alternative transportation, particularly Park-n-Rides, regional express bus services, the new Northstar Commuter Rail service (began operations in November 2009), and ridesharing. The TMO helps promote and increase utilization of these and other services, as well as increasing utilization of County services like the Anoka County Traveler fixed-route and dial-a-ride bus transit service and other local commuter bus services including Ramsey Star Express and the Forest Lake bus service.

Current efforts

The TMO provides education, promotion, and information related to the following transportation choices available in the County:

- Ridematching services
- Transit service, particularly the Northstar Commuter Rail, Ramsey Star Express, Anoka County Traveler, Forest Lake Commuter Bus, and Metro Transit Park-n-ride lots and service
- Traffic mitigation services to businesses and residents along road construction corridors or projects
- Bicycling and walking, including producing an "Anoka County Bike Trail Map & Commuting Guide" distributed to 25,000 residents annually
- Telework

Working with several partners, the TMO promotes these transportation choices through many events, communication tools, and programs, including:

- The Anoka County TMO web site (www.anokacountytmo.com)
- Engaging employers through transportation fairs, newsletters, Lunch & Learn sessions and other networking meetings, enrollment in the Commuter Challenge, and conducting trainings and program development services. In addition, the TMO is developing a network of commercial and residential property managers to work with more in promoting transportation options.
- Working with local government agencies to coordinate promotion of TDM programs and services, particularly in highly congested corridors or construction corridors
- Participating in community events, like the Anoka County Fair, and developing advertising and marketing materials to increase awareness of the TMO as well as regional incentive programs (like the Commuter Challenge)
- Installing outdoor bike racks at no cost to employers. Also, the TMO provides information displays (kiosks) on transportation services available.
- Administering inter-office surveys to identify candidates for transit, carpooling, bicycling, and other transportation options. The TMO also uses employee home zip code mapping to find where employees live and, for those that live in the same zip code, explore the possibility of carpooling or vanpooling together into work.

All of these services are all provided free to Anoka County residents and to people that work for employers in the County.

Funding

The TMO receives funding from the federal CMAQ program and the County supports the TMO through providing a 30 percent local match. Currently, there are no other funding sources for the TMO.

Evaluation

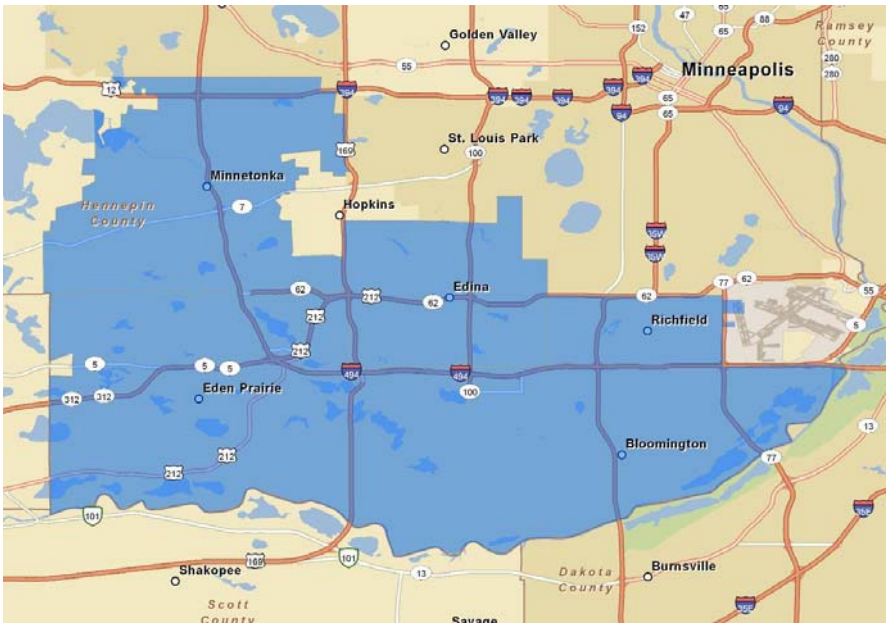
In 2008, the Anoka County TMO provided road construction project information to more than 50,000 households, reducing construction-related traffic congestion in an area with over 170 businesses and 15,000 residents. Six editions of the "Commuter News" newsletter were distributed to 1,950 employers. Bike racks were provided to 24 employers actively promoting transportation choices.

The TMO promoted the Anoka County Traveler's transit service, resulting in 257,440 non-SOV trips and the Ramsey Star Express commuter service, resulting in 67,340 non-SOV trips. An estimated 3.3 million vehicle miles were eliminated. The TMO actively worked with the County's multi-modal planning manager to preserve funding for the Forest Lake commuter bus service and to secure $8 million in funding for expansion of transit service along TH65.

2.2.4 494 Commuter Services

The 494 Corridor TMO exists primarily to increase awareness and use of transportation options to major employment centers along the Interstate 494 corridor southwest of the Twin Cities. The TMO service area includes the I-494 corridor through Bloomington, Eden Prairie, Edina, Minnetonka, and Richfield (Figure 5). The traffic concerns along this corridor are significant enough that it threatens future growth and development in these cities; in response, the cities support the work of 494 Commuter Services and their efforts to manage demand.

Figure 5: 494 Commuter Services Service Area



494 Commuter Services is very successful in their employer outreach efforts, registering new carpoolers and vanpoolers, and increasing the number of new bus riders and bicyclists in the corridor. They hold hundreds of fairs and events every year and also work with employers one-on-one to increase the transportation benefits they provide to employees. 494 Commuter Services is also piloting a new employer-based individualized marketing approach to TDM and they see a bright future in using emerging communication techniques to speak to the increasingly mobile and sophisticated commuter.

Current efforts

494 Commuter Services provides a wide variety of services mainly focused on building relationships with commuters, registering them for regional services, and promoting the benefits of alternative transportation. Specific efforts include:

- Outreach activities through commuter fairs, bicycle clinics, and seminars on pre-tax transportation benefits.
- Personalized trip planning, brokering transit passes, and helping travelers find carpool matches
- Implementation of employer-based Individualized marketing programs with full evaluation of personalized trip planning assistance and its impact on travel behavior
- Assisting companies with TDM plan development and initiating telework programs
- Promoting and enrolling participants in regional events like the Commuter Challenge
- Installing outdoor bike parking and assisting companies develop preferential parking programs

Through these efforts, the organization focuses on promoting carpooling, vanpooling, bicycling, telework, and transit. Given the dispersed nature of the land uses and relatively low density over their service area, the biggest modal market for 494 Commuter Services is ridesharing followed by transit, then bicycling and telework.

Funding

494 Commuter Services is funded by the federal Congestion Mitigation Air Quality (CMAQ) program. The required 20 percent local match is composed of a mix of funds from the five cities within the organization's service area.

Evaluation

494 Commuter Services tracks the benefit of their programs in several ways. They track the number of customized ridematches, customized transit itineraries, and customized bike route recommendations performed and the mode shift associated with these activities. They as also summarize this activity into a total number of vehicle miles saved. In their 2008 Annual Report, the following achievements were documented:

- Held 259 commuter fairs and 31 seminars on pre-tax transportation benefits
- Conducted 14 bike to work clinics and installed 9 bike racks for employers
- Promoted Commuter Challenge to 148 employers

- Assisted six companies with TDM plans, and another six with telework implementation consulting

494 Commuter Services estimates these efforts resulted in a savings of 24.9 million vehicle miles of travel in 2008. Further results for 2008 show:

- 2,653 new carpoolers
- 1,215 new bus riders
- 916 new bicycle commuters
- 3,365 individual pledges for the Commuter Challenge
- 4,000+ custom ridematches

2.3. Other TDM Services

2.3.1 Hour Car & ZipCar

HourCar is a program of the non-profit organization, Neighborhood Energy Connection, which provides a car-sharing program. This program serves Minneapolis and St. Paul. All of the cars are located in proximity to bus routes and stops, and the cars are equipped to hold bikes. For people to become a member of HourCar, they must pay an initial $50.00 membership fee. Members are able to reserve cars by phone or online. HourCar vehicles cost $6.00-$8.00 an hour and an additional $0.25 per mile.

ZipCar car sharing is available through the Parking and Transportation Services of the University of Minnesota at both the Minneapolis and St Paul campuses. Students, faculty, and staff can join Zipcar for $35/year. Depending on the car model, drivers then pay an hourly rate for actual use of vehicle, typically around $8 per hour. Drivers register and reserve cars online. Currently, there are 10 vehicles available between the two campuses.

2.3.2 NiceRide

NiceRide is a bike-sharing program that will launch in May 2010, and will be available for anyone to join. The bikes will be located in downtown Minneapolis, the University of Minnesota, and the Uptown neighborhood of Minneapolis. It is a convenient program, as users will be able to purchase cards at any of the many kiosks located in these neighborhoods. Once the users have purchased their cards, they are able to use the shared bikes at their leisure. Users simply insert their card at the bike stop, and then they are free to take the bike. The user is also free to return the bike to any rack, permitted that the racks have available spaces to lock up the bike.

2.4. Suburban Transit Agencies

There are several suburban transit agencies that provide service in the Metropolitan Council region in areas outside of the Metro Transit service boundary. These agencies and their operations typically provide TDM programs and services such as Guaranteed Ride Home, bike lockers, bike racks on buses, and special pass programs. The suburban transit agencies include:

- Maple Grove Transit
- Minnesota Valley Transit Authority
- Plymouth Metrolink

- Prior Lake Transit
- Shakopee Transit
- SouthWest Transit

2.5. MnDOT

2.5.1 eWorkplace

eWorkPlace is a state-sponsored program for Twin Cities metropolitan area employers. This program allows employees to work from home or a remote location. The program encourages employees to connect with work via technology and allows for flexible scheduling. In addition to the benefit of flexible scheduling, the eWorkPlace program provides other tools to benefit employees such as the eWorkPlace Commute Tool, which tracks their many savings from teleworking. eWorkPlace also provides online tools such as a Managers Guide, telework policies, solutions to telework issues and barriers, case studies, and previous reports and white papers to provide education and assistance for employers and employees participating in the eWorkPlace program.

Employees who have enrolled for eWorkPlace may also submit questions and concerns online, in the 'Ask the Expert' feature. eWorkPlace also provides on-site training, e-learning, IT advice, and troubleshooting. These features are act as an incentive, as it may be more comforting for employees to take part in an alternative work program.

2.5.2 *ArriveMN* Web Site

In 2007 the *ArriveMN* web site (www.arrivemn.com) was developed by MnDOT as a one-stop information portal for all transportation services in the state. One area of particular emphasis was the Twin Cities region. Today, the site contains information on all modes of travel in the region, including bike, boat, bus, light rail, and heavy rail. Overall, this resource is underutilized and could be a communication tool developed and promoted by local organizations in the future.

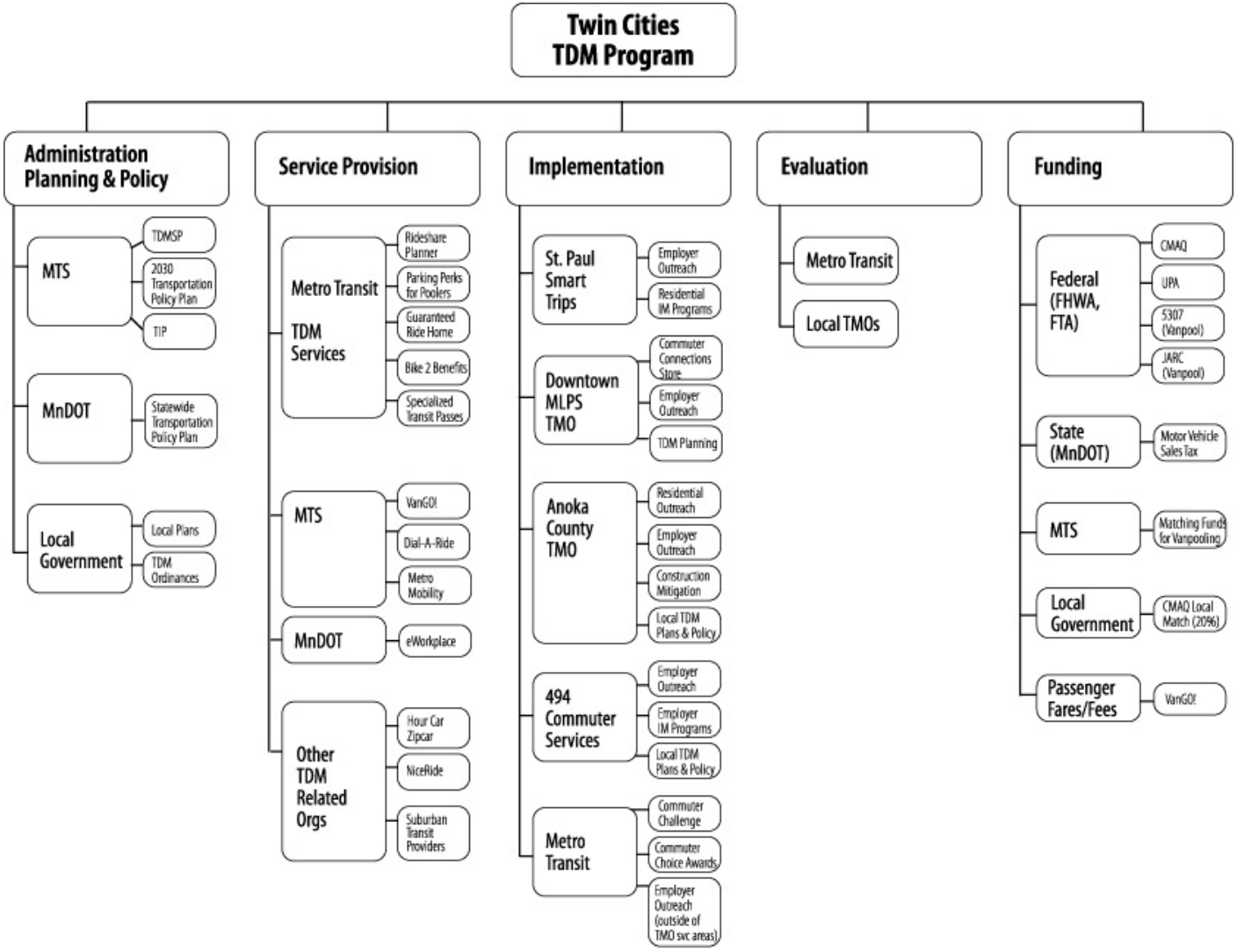
2.5.3 *Managed Lanes Operation and Planning*

Two managed lane corridors exist in the region on I-35W and I-394. In coordination with MTS, MnDOT is conducting planning to expand the construction of managed lanes throughout the region. The Metropolitan Highway System Investment Study (MHSIS) will identify the types of managed lane projects that could utilize TDM services moving forward. Currently, the contract language used for the operation of the I-35W managed lanes implies that additional revenues must be spent on the improvement of bus transit services. There may be opportunities to amend this language in the future to support funding for TDM strategies along managed lane corridors.

2.6. Roles and Relationships of TDM Providers

There are several organizations and agencies that compose the TDM program structure of the Twin Cities region. In most cases, programs are administrated by the Metropolitan Council, funded by federal programs, and implemented by several local and regional organizations. Figure 6 details the roles and relationships of these groups and how they work together to provide TDM services.

Figure 6: Roles and relationships of TDM Providers



2.7. Funding Summary

The funding for TDM program implementation through the Metropolitan Council is primarily CMAQ and its required 20 percent local match. Most of the TMOs receive their local match from city or county governments and major employers. St. Paul Smart Trips is unique in that is has one grant-based source of funding through the McKnight Foundation. Also, the Van-GO! program receives revenue from subscriptions and other federal and state sources.

Table 5 below displays the 2008 annual funding for TDM programs with ties to CMAQ and the Metropolitan Council in the region.

Table 5: 2008 Funding Summary

Organization	*Funding Amount ($2008)*	
Metro Transit	**$**	**1,595,000**
Van-GO! Administration	**$**	**50,240**
St Paul Smart Trips		
Summit-U program	**$**	**134,000**
Other programs	**$**	**268,000**
Downtown Minneapolis TMO	**$**	**330,000**
Anoka County TMO	**$**	**160,000**
494 Commuter Services	**$**	**330,000**
Total Funding	**$**	**2,867,240**

Chapter 3: Evaluation

This chapter consists of three evaluation components. First, several best practices from other regions in the United States are presented to detail how they structure their incentive strategies, how they evaluate their TDM programs, and how these processes are different from what is performed in the Twin Cities region today. Second, the results of a strengths, weaknesses, opportunities, and threats (SWOT) analysis conducted in December 2009 with the Advisory Committee is presented to identify the issues with the TDM program structure today and how future opportunities can help mitigate these issues. Third, a TDM market analysis was conducted to identify areas for future TDM programs in employment population centers not directly served by TMOs today.

Note this chapter provides the background and data needed to inform the recommendations made in the next chapter, Chapter 4: Recommendations. Formal recommendations for the Twin Cities TDM program are not proposed in this chapter.

3.1. National Best Practices and Twin Cities TDM Programs

The best practices summarized in this section offer several comparable TDM programs to the Twin Cities. The best practices are composed of two components: a review of the incentive strategies offered in other regions, and secondly a review of their performance and how these regions track the effectiveness of their overall TDM programs.

At the conclusion of each section, the information is summarized and compared to the Twin Cities TDM program. These summaries help point out the differences between Twin Cities program and other programs, where opportunities for new strategies or structures may lie, and identify areas for improvement that will be refined into recommendations in Chapter 4: Recommendations.

3.1.1 Best Practice Incentive Strategies Review

This section provides an overview of several incentive strategies that are underway in five different cities in the United States. The locations chosen for review include:

- Atlanta region, GA
- San Bernardino region, CA
- Las Vegas region, NV
- State of Virginia
- San Francisco Bay Area, CA

3.1.1.1 Incentive Program Structures

There are primarily three types of incentive strategies provided by other regional TDM programs. These strategies include tax incentives, commuter incentives, and employer incentives. They are incentive strategies that primarily focus on the journey to work, which is also the primary focus of the Twin Cities TDM programs and most TDM programs nationwide.

Tax Incentives

The first group that is simplest to implement is the tax incentives provided through IRS Ruling 132 (f) which allows employees to purchase up to $230 per month of transit, vanpooling expenses and parking expenses with pre-tax dollars, and up to $20 per month for bicycling. The employer also benefits with reductions in corporate taxes, FICA, and FUTA. This program is available nationally to all employees and employers and the two major undertakings are educational, which means educating employers on the use of 132 (f) and identifying voucher and vendor programs.

Although this incentive strategy is generally easy to implement, most employers do not make the effort to offer the pre-tax strategy to employees. One city, the City of San Francisco, has an ordinance that tries to increase implementation and awareness of this benefit by requiring the pretax incentive be implemented at worksite where parking is paid for by the employer.

Commuter Incentives

Commuter incentives are composed of several variations in incentive strategies. One is providing incentives to SOV (single occupant vehicle) drivers to switch to a rideshare mode. The incentive is either paid through cash or gift certificates and is typically available for three months and is validated either through paper work signed by an employer or through web-based systems. A second type of incentive usually includes ridesharing membership in a club that offers periodic discounts or drawings for certificates or cash. A third type is mode specific such as offering a vanpool incentive, or offering an incentive for larger carpools.

Employer Incentives

These incentive programs are rare but include coordinator incentives (cash or gifts based on percent of registrants/population of worksite), or incentives to employers to implement telework or compressed workweek programs by offering access to consultants. Some states even provide cash for the acquisition of equipment, such as the State of Virginia's Telework!va program.

3.1.1.2 Five Best Practice Incentive Strategies

Clean Air Campaign: Commuter Rewards

Atlanta, Georgia

The Clean Air Campaign offers many incentives through their Commuter Rewards program, which is tracked online with their CommuteTrak application, which allows commuters to log their daily commutes. There are three levels of rewards: cash for commuters, commuter prizes, and carpool rewards.

- Cash for commuters allows commuters to gain $2 per day, up to $100 over a three-month period.
- Commuter prizes allow on-going rideshare participants to earn $25 in randomized drawings. The rewards are paid through a gift credit card.
- Carpool rewards allow carpools of three or more to earn $40 gas cards each month for a year and carpools of four or more to earn $60 gas cards for a year.

These strategies are promoted through radio spots, the Clean Air Campaign web site and through local TMAs. Evaluation data shows that on average, commuters rideshare 4.39 days and 3-6

months later rideshare 3.08 days. Since last year, these incentives are available to all residents of the Atlanta region.

Rideshare and Rideshare Plus

San Bernardino Association of Governments and Riverside County Transportation Commission, California

Through the San Bernardino Rideshare program, new rideshare participants are provided with $2 per day in the first three months of ridesharing, with a cap of up to $50 per month. Compared to the Atlanta incentive strategy, the incentive is paid in form of gift certificates. On-going rideshares (Rideshare Plus) that participate in Club Ride get discounts for hundreds of merchants in the region. Both San Bernardino and Riverside counties have the same program and offer reciprocity as long as you live in either county. Validation is paper based; however, a web based system in under development. This incentive strategy started in 1991, and has been copied in many other regions.

Club Ride

Regional Transportation Commission of Southern Nevada

Club Ride Rewards is a TDM program with incentives that encourages commuters to use commute alternatives when traveling to and from work, such as carpooling, vanpooling, taking transit, walking, and bicycling. Commuters are eligible to win $5, $25, and $50 gift cards, in addition to selected merchandise. A unique aspect of this program is that it is employer based and targeted to the service workers in downtown Las Vegas. The employer initiates interest by signing up and then making incentives available to the employees. To verify participation and track trips in order to be eligible for the gift cards, card-activated computer terminals are deployed to the worksites for employee use. Each participating employee has a unique card to swipe through the computer terminal to verify their trip. Alternatively, employees can log their trips online, call, or send a text. This approach enables participants who do not own a personal computer to be fully engaged in the Club Ride program at their worksite.

Another incentive offered by the Regional Transportation Commission to employers is the EZ Rider Transit Pass Program. This pass program allows employers to purchase discounted transit passes pretax (EZ Rider Passes) for employees as an added transportation benefit. These passes can be purchased in bulk at a discounted rate of five to 15 percent. Employers must be a Club Ride partner to get the discounted rate and added tax savings.

The employer based discount structure for EZ Rider passes is as follows:

Purchase up to 200 passes 5% discount

Purchase 201 – 500 passes 10% discount

Purchase 501 + passes 15% discount

To qualify for these incentives, the employers must purchase a set number of passes over the course of the year. However, how often the passes are delivered and when the employer pays is flexible.

Telework!va

Northern Virginia

Telework!va is a program that provides an incentive of up to $35,000 to employers of 20 or more for costs incurred in the implementation of teleworking in Northern Virginia, and up to $50,000 for employers with 200 or more employees in the I-495 construction corridor. This is a reimbursement-based strategy based on a variable percentage of lease costs and consultant/technical assistance expenses. Eligible expenses may also include laptops, computer peripherals such as printers, broadband access, connectivity infrastructure, VOIP technology, telework center fees, and consultant services. Employers must commit that their employees will telework 6 or more days per month or 1.5 days per week. This program has been available since 2001 and has assisted 101 employers.

Rideshare Rewards

511 Rideshare, San Francisco Bay Area, Northern California

The Rideshare Rewards campaign targets its incentives and messaging on time savings, consumer benefits, and the cost of gasoline. Radio spots are conducted to announce this once a year campaign during key listening periods and times of day when commuters are caught in congestion. The campaign primarily encourages people to try carpooling. Rideshare Rewards pays new carpoolers up to $100 in gas or grocery gift cards.

New carpoolers register at 511.org. Over the subsequent 90-day period, Rideshare Reward participants submit online commute logs, earn $2 per day, and can earn up to $100 total in Rideshare Rewards. Commuters receive assistance finding a carpool match through the 511 RideMatch Service at 511.org.

The Spin the Wheel is an additional motivational tool offered to ongoing carpoolers to keep them interested in submitting a commute diary. Each week of commute information submitted qualifies a web site user for one spin on a prize wheel. The online prize wheel is filled with gas cards, coffee cards, grocery cards and 511 logo products.

The Rideshare Rewards program has been running since 2006 and the program is being merged with a new ridematching system in development.

3.1.1.3 Best Practice Incentive Review Summary

Compared to the incentives offered with the Twin Cities regional TDM programs, the regional incentive strategies described above offer several differences. First, several of the regional programs offer a high level of direct financial incentives (cash or gift certificates) to new and/or ongoing participants. This type of incentive structure requires a large commitment in financial resources, but it also sustains the performance of the overall TDM program. Financial incentives work particularly well within ridesharing programs focused on increasing use of carpooling. In addition, several of these incentives strategies, including the incentives provided with 511 Rideshare Rewards in Northern California and the Rideshare Rewards program in Atlanta are ongoing. This helps with participant retention.

A second highlight is the orientation of some of the incentive strategies directly to employers versus employees. As opposed to the employees themselves, employers are seen as the target audience for the Nevada Club Ride program and the Telework!va program. Both of these programs are fairly robust in the programs and financial incentives they offer employees and have proven successful in their communities.

3.1.2 Best Practices in Program Evaluation

Best practices in program evaluation display the methods and procedures used by other regional governments to assess the impact of TDM programs. These best practices clearly focus on employee and participant surveys as the underlying data collection mechanism to derive performance metrics. However, the practices vary considerably by each region and produce very different results, responding to the interests and needs of those communities. The best practices in program evaluation were chosen from a limited number of regions that are consistently monitoring the impact of TDM programs. These regions were selected based on their program's sophistication more than their size or population in comparison to the Twin Cities region. The five regions selected include:

- Phoenix and Maricopa County region, AZ
- Washington DC metropolitan region
- Atlanta region, GA
- Miami/Ft. Lauderdale region
- San Francisco Bay Area, CA

In general, the goals for program performance of most TDM programs are predetermined by transportation conformity and air quality policies that are tied to State Implementation Plans (SIP). The policies of a SIP are reflected in the regional Transportation Implementation Program (TIP) and funding is delegated accordingly. As an example, in the case of Valley Metro's goals in Phoenix, the primary policies are established by the SIP, and then further defined by the Maricopa Association of Governments and the regional TIP.

There are some instances when additional large development results in further TDM implementation to adhere to compliance with the SIP. In the Washington, DC metro area, the building of the Red Skins Stadium and resulting emissions exceeded limits in the SIP. Thus, the TERMs analysis described later in this section was modified to indicate how TDM strategies and the MWCOG Commuter Connections program would reduce the impact of transportation-related emissions increases from building the stadium.

3.1.2.1 Valley Metro, Phoenix, AZ

The purpose of the annual Valley Metro telephone survey is to assess participation in and reactions to the Trip Reduction, Regional Rideshare, and Clean Air Campaign programs for Valley Metro. The study is conducted in partnership with Valley Metro, Maricopa Association of Governments (MAG), and Maricopa County. Up until 2007, Valley Metro based the evaluation of the TDM program on the results of a telephone survey of residents age 16 and older in Maricopa County.[1]

The survey tracks changes in alternate mode usage among commuters, perceptions of air quality, and air pollution control. Whenever appropriate, the analysis examines the trends that have occurred from year to year. Important differences between significant population sub-groups are also discussed.

On average about 500 – 600 telephone interviews are conducted each survey year. The survey takes about 12 minutes to complete. The total weighted sample has a margin of error of ±4.2% to

[1] Since 2008, residents age 18 and older have been surveyed. Since the surveyed population for 2008 and 2009 does not directly match up with census categories, the survey results can not be used to project regional impacts on VMT for those years. For the purposes of this summary, we have referred to the 2007 data results.

5.8% margin of error. Households are selected by means of random digit dialing. The results of the surveys are expanded to project regional impact.

The following are some of the highlights of the latest survey and show what kind of data a full telephone survey can recover:

- Overall in 2007, the percent of employed people using traditional alternate modes to commute to work did not change in comparison to the past two years (24% vs. 23% and 24%), but remains lower than the 35% recorded in 2004.
- Total alternate mode usage, which includes telecommuting and compressed schedules, increased significantly to the highest level in three years (43% up from 39%). The increase was due, for the most part, to an increase in employed residents who "always" use an alternate mode for their commute (12% up from 9%).
- The percent of employees who drive alone one or more days a week decreased to the lowest level reported since 2000 (85%).
- In 2007, both the percent of carpoolers/vanpoolers (17% to 18%) as well as the frequency of carpooling increased (2.9 days to 3.0 days). Although there was a slight increase in the percentage of people reporting to drive alone five days a week (63% to 66%), the percentage of employees reporting to carpool five days a week more than doubled (14% to 32%).
- The alternate modes that have made the most significant changes since 1993 are riding the bus (up 127%), walking (up 411%), and telecommuting (up 1,007%). The number of employed residents who operate a home-based business since 1993 is up by 219%.
- Using regional average trip distance data, approximately 8.6 million vehicle miles (approximately 18% of the total possible vehicle miles) were avoided daily in 2007 because employees used an alternate mode of transportation, worked at home, or had a compressed work schedule. This is equivalent to 2.3 billion annualized VMT in 2007.

3.1.2.2 Commuter Connections Program, Washington, DC

The Commuter Connections Program of the Metropolitan Washington Council of Government (COG), in concert with program partners, is responsible for implementing five Transportation Emission Reduction Measures (TERMs) in support of the metropolitan Washington region's efforts to meet the conformity requirements of federal transportation and clean air mandates. The TERMs include:

- Maryland and Virginia Telework
- Guaranteed Ride Home
- Employer Outreach
- Mass Marketing
- InfoExpress Kiosks

In addition, there are six key program measures based on TDM program outcomes. These measures include:

- Vehicle trips reduced
- Vehicle miles of travel (VMT) reduced
- Emissions reduced: Volatile Organic Compounds (VOC), Oxides of Nitrogen (NOx), and Particulate Matter (PM2.5)

- Energy reduction (fuel saving)
- Consumer saving (commuting cost saving)
- Cost effectiveness, in terms of cost per benefit obtained (e.g., cost per trip reduced)

The evaluation process uses several calculation factors derived from surveys of Commuter Connections' program applicants and/or the public-at-large. These factors include:

- Placement rate: percent of commuters who shift to alternative modes
- Vehicle trip reduction (VTR) factor: Average daily trips reduced for each commuter placed
- Average commute trip distance
- Proportion of ridesharers and transit users that drive alone to the location where they meet their carpool, vanpool, bus, or train.

Much of the data needed to perform this robust evaluation process is achieved through the following methods:

- Ongoing Monitoring: This includes the regional Association for Commuter Transportation (ACT) Employer Contact database, Maryland and Virginia Telework participants, Bike to Work Day participant records, Commuter Connections applicant database records, and the Commuter Operations Center activity tracking

- Existing/Ongoing Surveys: Commuter Connections applicant Placement Rate survey, Guaranteed Ride Home survey, State of the Commute survey, Employee Commute surveys (voluntarily administered by employers), Telework assisted employer follow-up surveys, Bike-to-Work Day participant survey

- Analysis Tools: EPA COMMUTER Model (v 2.0) and the CUTR Worksite Trip Reduction Model

The data retrieved from these data collection methods are applied to a basic methodology listed below to calculate program impacts for each TERM:

1. Estimate commuter population "base" for the TERM (e.g., all commuters, GRH applicants, ride-share matching applicants, kiosk users, Employer Outreach employees, etc.)

2. Calculate placement rate: Percentage of commuters in the population base who made a travel change as a result of the TERM

3. Estimate the number of new alternative mode placements: Multiply placement rate by the population base for the evaluation period

4. Calculate the vehicle trip reduction (VTR) factor for new placements: Average daily vehicle trips reduced per placement

5. Estimate vehicle trips reduced: Multiply number of placements by the VTR factor

6. Estimate vehicle miles traveled (VMT) reduced: Multiply number of vehicle trips reduced by average commute distance

7. Adjust vehicle trips and VMT for access mode: Discount vehicle trips reduced and VMT reduced to account for commuters who drive alone to meet rideshare modes and transit at park-and-rides and other parking facilities

8. Estimate NOx, VOC and PM2.5 emissions reduced: Multiply adjusted vehicle trips and VMT reduced by emissions factors consistent with the regional planning process

9. Estimate the energy and commuter cost savings: Multiply VMT reduced by fuel efficiency and vehicle operating cost factors

10. Estimate cost effectiveness: Divide program or TERM costs by the program impact measures

Figure 7 displays the results of the TERMs for the 2008 fiscal year.

Figure 7: 2008 TERM Results *(MWCOG 2008 data)*

Table A
Summary of Daily Impact Results for Individual TERMs (7/05– 6/08) and Comparison to Goals

TERM	Participation [1]	Daily Vehicle Trips Reduced	Daily VMT Reduced	Daily Tons NOx Reduced	Daily Tons VOC Reduced
Maryland and Virginia Telework [2]					
2008 Goal		11,830	241,208	0.122	0.072
Impacts (7/05 – 6/08)	49,027	21,866	413,703	0.211	0.126
Net Credit or (Deficit)		**10,036**	**172,495**	**0.089**	**0.054**
Guaranteed Ride Home					
2008 Goal	36,992	12,593	355,135	0.177	0.097
Impacts (7/05 – 6/08)	25,164	8,680	227,428	0.106	0.056
Net Credit or (Deficit)	**(11,828)**	**(3,913)**	**(127,707)**	**(0.071)**	**(0.041)**
Employer Outreach – all employers participating [3]					
2008 Goal	581	64,644	1,065,851	0.549	0.343
Impacts (7/05 – 6/08)	852	59,163	969,174	0.443	0.266
Net Credit or (Deficit)	271	**(5,481)**	**(96,677)**	**(0.106)**	**(0.077)**
Employer Outreach – new / expanded employer services since July 2005 [3]					
2008 Goal	96	8,618	140,622	0.072	0.046
Impacts (7/05 – 6/08)	194	22,510	372,406	0.178	0.102
Net Credit or (Deficit)	**98**	**13,892**	**231,784**	**0.106**	**0.056**
Employer Outreach for Bicycling [3]					
2008 Goal	61	130	567	0.001	0.001
Impacts (7/05 – 6/08)	122	188	1,127	0.001	0.001
Net Credit or (Deficit)	**61**	**58**	**560**	**0.000**	**0.000**
Mass Marketing					
2008 Goal	11,023	7,758	141,231	0.072	0.044
Impacts (7/05 – 6/08)	5,464	2,577	69,274	0.032	0.017
Net Credit or (Deficit)	**(5,559)**	**(5,181)**	**(71,957)**	**(0.040)**	**(0.027)**
InfoExpress Kiosks [4]					
2008 Goal		1,778	46,755	0.023	0.013
Impacts (7/05 – 6/08)	8,627	2,840	52,638	0.027	0.016
Net Credit or (Deficit)		**1,062**	**5,883**	**0.004**	**0.003**

1) Participation refers to number of commuters participating, except for the Employer Outreach TERM. For this TERM, participation equals the number of employers participating.

2) Impact represents portion of regional telecommuting attributable to TERM-related activities. Total telecommuting credited for conformity is higher than reported for the TERM.

3) Impacts for Employer Outreach - all employers participating includes impacts for Employer Outreach – new / expanded employer services since July 2005 and for Employer Outreach for Bicycling.

4) InfoExpress Kiosks TERM is part of the Integrated Rideshare TERM.

3.1.2.3 Atlanta Regional TDM Program, Atlanta, GA

Several measurement efforts are undertaken by Georgia Department of Transportation to document the impact of TDM in the Atlanta region. Surveys are conducted in the non-attainment area, including a State of the Commute telephone survey of about 4,000 randomly selected commuters, a random survey of 385 employer representatives, panel analysis of recipients of Commuter Rewards or Cash for Commuters, surveys of vanpool riders, and other programmatic surveys as needed. Not all surveys are conducted every year.

Commuter Placement Rates and Placements

To calculate the commuter placement rates, the percentage of active participants shifting to alternative modes or increasing their mode use during the evaluation period are used. Examples for 2002, which is year when a methodology framework was developed, are provided below:

- New carpool placement rate 11.2%
- New vanpool placement rate 3.4%
- New transit/non-motorized mode placement rate 7.9%
- Retained carpool placement rate 7.5%
- Retained vanpool placement rate 1.4%
- Retained transit/non-motorized mode placement rate 8.4%

The number of active participants, when multiplied by placements rates, provides an estimate of the total commuters placed in alternative modes.

Vehicle Trips and VMT Reduced

Vehicle trip reduction (VTR) measures the number of vehicle trips (VT) no longer made as a result of commuters shifting to alternative modes.

The VTR factors include:

- New carpool VTR factor: 0.34 daily one-way VT reduced per placement
- New vanpool VTR factor: 0.84 daily one-way VT reduced per placement
- New transit/non-motorized VTR factor: 0.54 daily one-way VT reduced per placement
- Retained carpool VTR factor: 0.82 daily one-way VT reduced per placement
- Retained vanpool VTR factor: 1.41 daily one-way VT reduced per placement
- Retained transit/non-motorized VTR factor: 1.08 daily one-way VT reduced per placement

These factors, when multiplied by the number of placements in their respective categories and discounted to reflect the short duration of temporary placements, equal a total daily vehicle trips reduced. Multiplying the number of vehicle trips reduced by the average commute distance for

the respondents who made a commute change results in a total daily vehicle miles traveled (VMT) reduction.

Using this methodology and results of the 2007 State of the Commute commuter survey, the results of the Atlanta program are summarized below:

- 84 percent drive alone, 6 percent carpool, less than one percent vanpool, four percent telework or work alternative work hours, one percent is on a compressed workweek schedule, four percent take transit and less than one percent bike or walk.
- The average one-way travel distance is 19.7 miles, with an average of 35.9 minutes of commuting time.
- The most frequently used commuter alternative among those who use other modes is telework (40%).
- The average size of carpools is 2.48, and the average vanpool size is 7.75.
- 30 percent of those surveyed had never heard of transportation support service such as Clean Air Campaign or a TMO.
- In 2008, 69 percent of those enrolled in the Cash for Commuters program continue to carpool 3-6 months after the program ended.

3.1.2.4 South Florida Commuter Services (SFCS), Miami/Ft. Lauderdale, FL

SFCS tracks the number of employees that participate in employer TDM programs, as well as the benefits that each employer provides. Participants are contacted 30-60 days after they initially sign-up for SFCS services to determine use of services. Surveys are also sent out twice a year to gather feedback from participants. This data is used to create a trip reduction analysis for the Florida DOT. They also track calls to their information line, website hits, and the number of returned rideshare applications. SFCS evaluates its PR events by tracking the number of guests at events as well as feedback received from guests at these events.

Using these data and other sources, the following are some of the performance measurements used in evaluation:

- Share of commuters aware of brand
- Profiles of TDM elements for each employer
- Number of employers with telework and compressed work week programs
- Number of employees teleworking or working a compressed work week
- Number of calls received
- Mode shift from drive alone
- Mode shift from alternative modes
- Number of vanpool trips and actual vans
- Customer turnover

- Percent of non-SOV going back to SOV

Evaluation in 2004 of the SFCS programs show:

- Placement as measured by rideshare arrangement formed is 14 percent for all users, 19 percent for online users, and 12 percent for non-online users.
- Overall customer satisfaction had a rating of 7.1 to 6.8 (out of 10, with 10 being highest) for years 1999 to 2004.
- 57,660,000 miles of vehicle travel were eliminated in 2004 at the cost of $1.09 per trip and $0.04 for each mile reduced.
- The 2004 annual budget of SCFS was $2,425,000.
- There are over 13,000 people registered in the Guaranteed Ride Home database and only 749 rides were provided in 2004.
- Of the 23,000 registered commuters in the rideshare database, approximately 69 percent use an alternative mode of commuting once per week. This compares to just 19 percent of the general public.
- There are 89 vans in operation, accounting for 774 vanpoolers.

3.1.2.5 511 Regional Rideshare Program, San Francisco Bay Area, CA

The following summarizes annual calculations and metrics that are used by the 511 Regional Rideshare Program to track program performance. In the mid-1990s, the California Air Resources Board developed this methodology and quickly all California area Rideshare agencies began implementing it to calculate program impacts. Data for this summary came from participant surveys completed in fall 2008 and spring 2009, as well as the 511 Rideshare Ridematch database.

Each month, 511 Rideshare estimates the number of individuals (referred to as "Clients Placed") who shifted to carpooling or vanpooling as a result of 511 Rideshare activities. This calculation is based on three 511 Rideshare activities: New or Updated Matchlist Requests, Placement Calls (also called Follow-up Customer Contact Calls), and New Vanpool Formation. Factors derived from surveys are applied to the volume of each of these activities to determine the final "Clients Placed."

The vehicle trip and VMT reduction impacts are calculated once the Clients Placed participation is known. These impacts are calculated through a series of factors and regional averages. These factors are summarized in Table 6 and include:

- Prior SOV Use Factor. This is a percentage factor used to determine the number of trips eliminated per day specifically from the 511 Rideshare program. Some participants would have already been carpooling or using transportation alternatives before the program; therefore, a range of 55 – 60 percent is used to discount the impact of the program on vehicle trips and VMT. The resulting trips eliminated per day is the final Clients Placed numbers that are then used in the subsequent Days per Year and Miles per Trip calculations.

- Days Per Year. This factor assumes annual participation of 99 days per year for carpool registrants and 240 for vanpool registrants.
- Miles Per Trip. This factor assumes 32.8 mi per trip for carpools and 54 mi per trip for vanpools.

Table 6: 2008 – 2009 Results of 511 Rideshare program

Prior SOV Use Factor		***Trips Eliminated per Day (trips)***
Clients Placed: Matchlists	60%	11,195
Clients Placed: Placement Calls	60%	460
Clients Placed: Riders in New Vanpools	55%	570
	Total	12,225
Days Per Year		***Trips Reduced/Year (trips)***
Clients Placed: Matchlists	99 days	1,108,308
Clients Placed: Placement Calls	99 days	45,563
Clients Placed: Riders in New Vanpools	240 days	136,793
	Total	1,290,663
Miles per Trip		***Total VMT Reduction/Year (miles)***
Clients Placed: Matchlists	32.8 mi	36,352,495
Clients Placed: Placement Calls	32.8 mi	1,494,464
Clients Placed: Riders in New Vanpools	54 mi	7,386,803
	Total	**45,233,763**

3.1.2.6 Best Practices in Program Evaluation Summary

Review of the five best practices in TDM program evaluation show that other regions in the United States use varying scales of regional surveying to comprehensively assess the impact of their programs. Surveying methods differ, but all approaches are fairly robust and require a thorough understanding of what is desired as output data for performance measurement.

Regions use the survey results in a variety of methods to estimate the impact of their TDM program, typically at least in terms of vehicle trips reduced or vehicle miles reduced. The key component to develop these performance metrics is to clarify a participation rate by new participants or ongoing participants in TDM programs. These participation rates are the foundation for other results, such as VMT savings, which typically use the participation rate and a

regional average commute trip distance that is already calculated for regional transportation demand modeling purposes.

Expanding more on participation rate, some regions clearly try to understand the subtleties of participation. That is, how many are new participants, how many are ongoing participants, and how many are participants that have reverted back to SOV use. These nuances help explain the true impact of the TDM program and help decision makers understand the long-term impact of TDM programs.

Table 7 presents a summary of the best practices in program evaluation. More detailed budget information is available in Section 3.1.3.

Table 7: Best Practices in Program Evaluation Summary

TDM Program	***TDM Program***		***Regional Characteristics***			
	Annual VMT reduced (VMTR)	Annual budget ($2008)	Total Annual VMT* (1,000,000)	VMTR as a percentage of Total VMT	Total Pop-ulation**	Total Em-ployment**
Valley Metro (Phoenix)	2,300,000,000***	$6,352,272	21,268.5	10.81%	4,160,999	3,141,221
MWCOG (Washington, DC)	505,380,000	$5,200,166	26,604.6	1.90%	5,306,742	4,153,329
Clean Air Campaign (Atlanta)	336,000,000	$4,000,000	30,576.15	1.10%	5,251,899	3,991,402
South Florida Commuter Services (Miami/Ft. Lauderdale)	57,660,000	$2,425,000	30,754.35	0.19%	5,403,075	4,327,631
511 Rideshare (San Francisco Bay Area)	45,233,763****	$2,830,000	26,589.75	0.17%	4,222,756	3,409,030
Twin Cities TDM Program (Minn/St Paul)	**65,958,658**	**$4,063,182**	**17,402.55**	**0.38%**	**3,197,225**	**2,480,984**

* Data obtained from the Texas Transportation Institute *2009 Mobility Study*. Total Annual VMT is compiled from the daily VMT reported by region in the *2009 Mobility Study*.

** 2006 – 2008 American Community Survey data for Metropolitan Statistical Areas representing these regions.

*** Results of region-wide 2008 TDM program survey including telework, which had a strong impact in this survey.

**** 511 Ridehsare regional program results only. The VMT reduced number does not reflect local and transit partner programs.

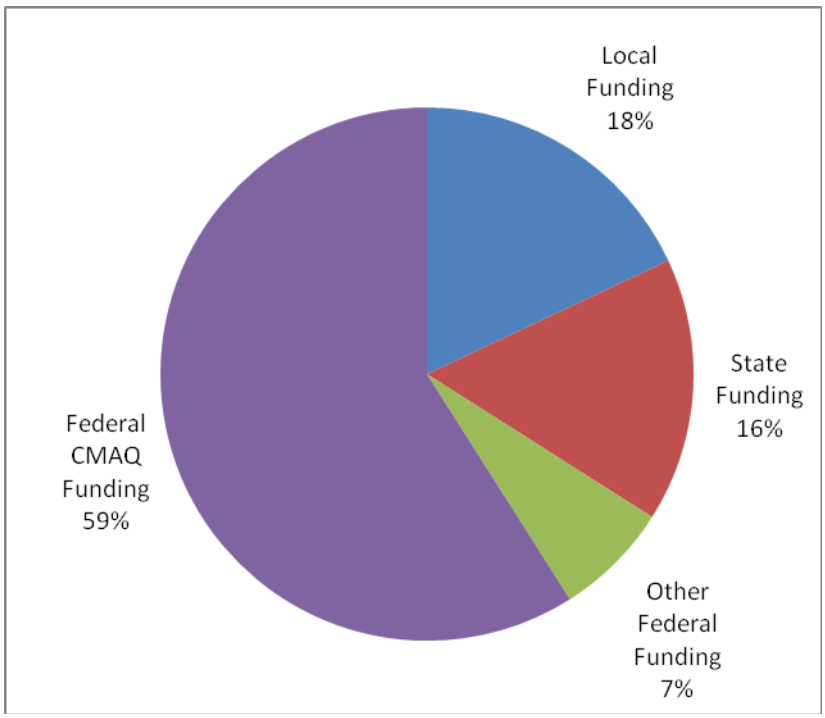
Table 7 shows that there is a significant amount of variation between regions in terms of VMT reduced and the impact of VMTR as a percentage of total VMT. The principal reason for these differences is differing data collection standards and program effectiveness reporting requirements for each region. Also, some regional TDM programs may account for all programs, including telework and bicycle use, while others may only account for ridesharing programs.

3.1.3 Best Practices in TDM Program Funding

National research has shown that while TDM program funding is still heavily reliant upon CMAQ, a diversity of other funding sources are slowly being developed at the state, regional, and local level. Research conducted by the Center for Transportation and the Environment[2] of nine regional programs found nearly 60% of all funding stems from the CMAQ program. Other federal funding accounted for 7 percent, state funding was 16 percent, and local funding 18 percent. The regions studied included Atlanta, Massachusetts (statewide *MassRIDES* program), Chicago, Houston-Galveston area, Miami-Dade, Phoenix, Riverside, CA, the San Francisco Bay Area, and the Washington DC metropolitan region. It is important to note that the regions listed above are all in nonattainment status for air quality designation while the Twin Cities is a maintenance area. The nonattainment status requires CMAQ be used for alternative transportation modes like transit and TDM. Since the Twin Cities region is in maintenance status, CMAQ funds in this region are more flexible and this may affect the ability of TDM partners to seek out funding resources.

Figure 8 displays the results of this research.

Figure 8: Average Funding Sources across nine regions (CTE, 2006)



The five regions researched for best practices in program evaluation were also studied for their funding sources. These funding sources and related annual budgets are detailed in Table 8.

[2] Center for Transportation and Environment. 2006. "TDM Program Comparison Study: Program comparison research for nine regions across the nation." Atlanta, GA: Georgia Department of Transportation.

Table 8: Regional TDM program funding

TDM Program	***Funding Sources***			***Annual Budgets (2008)***			
	CMAQ	Local	Other	CMAQ	Local	Other	Total
Valley Metro (Phoenix)	48% distributed through State and Maricopa County Trip Reduction Program	49% Proposition 400: 1/2 cent sales tax	3% Small grants and resources for marketing, office space, etc provided in-kind.	$3,049,090	$3,112,613(local proposition 400)	$190,568 Bike Education (Safe Routes to School)	$6,352,272
MWCOG (Washington, DC)	50% through State and local DOT's	49% State	Special projects (between 1 to 2%)	$2,600,083	2,548,081	$52,000	$5,200,166
Clean Air Campaign (Atlanta)	80% through CMAQ	20% total local match. Composed of state (11%) and private corporations/ fundraising	TMAs in Atlanta also receive funding from Community Improvement District (CID)or Business Investment District (BID)	$3,200,000	$800,000 (corporations, fundraising, and improvement district contributions)	None	$4,000,000
South Florida Commuter Services (Miami/Ft. Lauderdale)	No CMAQ funding	40% through regional agency 50% State Funds	10% Federal Funds for Urban Partnership Agreement (I-95 Express Lanes)	$0	$2,182,500	$242,500	$2,425,000
511 Rideshare (San Francisco Bay Area)	75% through Congestion Management Agency (MTC)	25% from the Bay Area Air Quality Management District	None	$2,122,500	$707,500	None	$2,830,000

3.1.3.1 Denver Regional Council of Governments TDM Pool Allocation Process

The Denver Regional Council of Governments (DRCOG) administers a regional CMAQ TDM funding application process with local TDM partners biannually. DRCOG staff administers the application, evaluation, and selection process for these funds. Like the Twin Cities, the DRCOG region has several transportation management organizations and other local organizations that use CMAQ TDM funding to implement local outreach programs and promote regional services.

DRCOG works with local organizations each funding cycle to establish an application process that ultimately awards the CMAQ funds on a competitive basis, but also a very transparent basis. There are a series of Workgroup meetings with local TDM partners to define funding eligibility requirements, review standards for VMT and trip reduction calculations from proposed projects, and ultimately the group reviews applications together and collectively select the wining applications through a point-based scoring system. The application consists of several sections, including:

- Application and project information.
- Funding request, with local match sources detailed including volunteer hours, in-kind services, and donations.
- Detailed work tasks with estimated start and end dates.
- Benefit calculations including single occupant vehicle trips reduced, VMT reduced, and cost effectiveness (total project cost divided by VMT).
- Other considerations, such as innovation and project readiness.

Information and resources are published to the DRCOG web site during the application process and final applications are submitted electronically. For the 2010 – 2012 funding cycle, the evaluation criteria and the maximum points that can be awarded for each criteria are provided in Table 9.

Table 9: 2010 – 2012 Evaluation Criteria for the DRCOG regional TDM program

Criteria	*Maximum Points*
VMT Reduction	18
Trip Reduction	15
Cost Effectiveness	25
Overmatch (any additional local match than the minimum 20% requirement)	8
Congestion level in project service area	8
Metro Vision Regional Plan implementation points	6
Results tracking process	5
Level of innovation (new ideas or concepts not yet implemented in the region)	5
Other considerations (awarded based on TDM Workgroup participant thoughts including regional equity, readiness, timeliness, etc)	10
Grand Total Maximum Points	100

3.1.4 Best Practices in TDM Program Structures

There are different structures for regional TDM programs nationwide. The structure depends heavily upon local government engagement, regional policy, and the presence of local organizations such as transportation management organizations and special districts. In general, two types of structures exist:

- **Heavy regional involvement.** Examples include the Maricopa County Trip Reduction Program and the Portland, Oregon regional Employee Commute Options program administered by the Oregon Department of Environmental Quality.

- **Strong local implementation.** These examples are similar to the Twin Cities TDM program design, where local transportation management organizations and other groups provide local outreach and marketing of regional services as well as their own programs. A comparable region is the Atlanta, Georgia region.

The design of each of these program structures and examples from other regions is described below.

3.1.4.1 Maricopa County Trip Reduction Program

Maricopa County (Phoenix region) is a long-standing national example of mandatory regional TDM requirements through their Trip Reduction Program (TRP). The TRP has been in existence since the passage of the 1988 Air Quality Bill through the Arizona Legislature, which contained many new rules and regulations oriented to improving the region's air quality. The TRP represented one of the most significant transportation-related regulations passed through the bill to improve Phoenix area air quality. Also, the Phoenix region does not contain transportation management organizations or other local organizations solely oriented to providing TDM programs. However, there are varieties of business improvement districts in operation that provide transportation-related services, such as shuttles in downtown Phoenix.

The TRP is administered through the Maricopa County Air Quality Department. It requires employers with 50 or more employees to develop travel reduction plans for their worksites. The County provides employers with TDM resources and incentives to help achieve the goals established in the plans, such as promoting alternative modes and providing regional incentive programs. Valley Metro, the region's transit provider, implements the regional TDM program and accompanying incentives.

The regional goal of the TRP is to reduce single occupant vehicle trips and/or miles traveled to the work site by 10 percent a year for a total of five years, and then 5 percent for three additional years, or until a 60 percent rate of SOV travel is reached.

The TRP monitors the effectiveness of the program through providing surveys to participating employers, who in turn implement the surveys and provide the responses to TRP staff. The most recent regional results show employee participants in the TRP save an estimated 12,299 tons of air pollutants each year through the program.

3.1.4.2 Portland, Oregon Employee Commute Options Program

The Oregon Department of Environmental Quality (DEQ) implements the Employee Commute Options (ECO) Program for the Portland, Oregon region. The primary purpose of the program is to reduce air pollution from single occupant vehicle traffic in the region. It is a component of several transportation-related emission mitigation measures the region is implementing to comply with federal air quality standards.

Under the DEQ ECO program, employers with more than 100 employees must develop a travel reduction plan that demonstrates how they will provide their employees with commute alternatives and incentives designed to reduce the number of cars driven to work. The ECO program expects employers to provide the majority of these incentives and strategies such as transit pass subsidies are common tools. Employers are also required to survey their employees and provide the survey responses to the DEQ. In 2008, 780 participating employers reduced over 3 million commute trips through the ECO program.

The ECO program is successful in part because of strong local support and implementation of TDM programs. The Portland region is known for its strong local transportation management associations, who help support the mission of the ECO program. Also, in 2006 the Oregon Department of Transportation, Metro, TriMet, the City of Vancouver, and other public and private partners launched the Drive Less/Save More Campaign (www.drivelesssavemore.com). The City of Portland has also launched several successful TDM programs, including recent residential individualized marketing programs.

3.1.4.3 Atlanta Clean Air Campaign and Transportation Management Associations

As described in Sections 3.1.1.2 and 3.1.2.3, the regional Clean Air Campaign in Atlanta provides a variety of incentives for transportation alternatives and these incentives are monitored for their effectiveness. The Clean Air Campaign itself is a non-profit organization that is a combination of state, regional, and local government partners as well as major employer partners (like the Home Depot). The Clean Air Campaign acts as a "one stop shop" for information on transportation alternatives and TDM services. Travelers visit www.cleanaircampaign.org for information about all transportation options in the region.

Supporting the regional Clean Air Campaign are local Atlanta TMAs and the regional rideshare agency, RideSmart. These TMAs help employers provide cost-effective commute options for their employees such as transit discounts, carpool and vanpool incentives, and other programs that help Atlanta commuters change from driving alone to another mode. The Atlanta region has eight TMAs:

- Buckhead Area TMA
- Downtown TMA
- Clifton Corridor TMA
- CobbRides (recently rebranded LocalZoom)
- Commute Club: A Program of the Cumberland CID
- Midtown Transportation Solutions
- Perimeter Transportation Coalition
- ASAP+: Atlantic Station Access + mobility Program

These groups are funded through a mix of sources, including federal CMAQ grants as well as assessments from local improvement districts and local government support. A significant part of their efforts are channeled towards local outreach and marketing services to promote the regional programs that the Clean Air Campaign provides.

The Clean Air Campaign is a stand-alone organization that equally promotes all modes of transportation and facilitates travelers getting information and incentives to change travel behavior.

3.2. 2009 Transportation Management Association Survey

In 2009, a Transportation Management Association survey was conducted by UrbanTrans in association with the Association for Commuter Transportation's TMA Council. Of 176 TMA's contacted nationally and internationally, 78 responded, of those 68 were US based and the rest were based in Canada, United Kingdom, Netherlands, New Zealand, and Australia. The TMAs were based on self-identification of the respondents.

3.2.1 TMA Funding Sources

A total of 65 percent of the TMAs are incorporated organizations. In the US, most of the TMAS are non profit 501 (c)(3) or 501(c)(4) incorporated organizations. Of those that are not incorporated, 88 percent are a subsidiary or internal department of another incorporated parent organization. The most common parent organization is a Chamber of Commerce or other types of membership associations. Other parent organizations include Business Improvement Districts, a site-specific development, a University, or a local government agency or department.

TMA funding sources are also diverse. The following percentages indicate the percentage of TMAs that receive funding from each source type.

- 58 percent of TMAs receive funding from *membership dues*
- 32 percent of TMAs receive funding from *services*
- 31 percent of TMAs receive funding from *government grants*
- 10 percent of TMAs receive funding from *developer funding*
- 10 percent of TMAs receive funding from *a business investment district*
- 21 percent of TMAs receive funding from *other sources*

When analyzing the above data, it was found 20 percent of respondents receive 90 percent of their revenue from membership dues, while 21 percent receive 10 percent or less of their revenue from membership dues. 42 percent do not receive any income from membership dues.

3.2.2 Top Services Provided by TMAs

The TMAs mainly focus on employees who commute to and from work (76 percent). Geographically the TMAs serve a variety of geographic areas such as central business districts, corridors, citywide areas, an urban or suburban activity center, or a specialized activity center such as an airport, hospital, or university.

The five top services offered by TMAs include:

- Promotional/marketing materials
- Employer travel surveys
- Promotional events
- Trip reduction plan/travel plan development
- Rideshare matching

Other services offered by TMAs include:

- Email newsletters
- Guaranteed Ride Home
- Advocacy
- ETC training
- Cycling assistance

- Transit pass sales
- Employer networking events
- Parking management planning
- Web based travel information
- Land use/site design assistance
- Relocation services
- Tax benefit assistance
- Direct ridesharing incentive
- Individual journey planning
- Telework assistance
- Subsidized transit passes
- Real time alerts
- Vanpool services
- Shuttle provision

Some TMAs charge a fee, especially to non-members, for the provision of some of the services listed above. In addition, TMAs frequently contract the above services from a third party.

3.2.3 Measurement and Evaluation Practices of TMAs

To track performance and assess satisfaction with services, most TMAs conduct regular surveys of employees and organizations. TMAs also track emails, gather transportation data, and record attendance at events.

Over 50 percent of the TMAs said that they track performance by:

- E-mails and calls
- Surveys of employers and organizations
- Gathering raw data such as traffic counts or transit boardings
- Surveying travelers at a workplace or site
- Web site visits
- Surveying participants in a special program

The types of data TMAs compile from performance measurement activities include:

- Measuring mode shift at the workplace or TMA geography
- New ridematch database registrations
- Direct utilization rate (e.g., vanpool and carpool miles logged)
- Mode shift of new participants
- Cost per trip reduced
- Cost per vehicle mile reduced
- Cost of emissions reduced
- Member satisfaction with services
- Overall awareness of programs

3.3. Strengths, Weaknesses, Opportunities, and Threats Analysis

On December 7, 2009 the Advisory Committee associated with the Strategic TDM Plan met and discussed the strength, weaknesses, opportunities, and threats (SWOT) associated with their TDM programs. All four TMOs were present as well as representatives from MTS, Metro Transit, and MnDOT.

This summary contains a listing of the SWOT as identified by the Advisory Committee. In addition, a discussion is presented on how some of the future opportunities identified can outweigh the current weaknesses of the TDM program.

3.3.1 Strengths

- TMO focus
  - Localized Expertise
  - Regional Collaboration among TDM Stakeholders
- Metropolitan Council focus
  - Strong MPO to influence/support local efforts
  - Longitudinal Employer Household Dynamics (LEHD) data from Met Council
  - Single Centralized Guaranteed Ride Home (GRH) program for regional use
  - Single Vanpool provider (Van-GO!)
  - Bike2Benefits Program
- Municipal focus
  - Local ordinances increase awareness of TDM

To synthesize, the Twin Cities region has some strong implementation efforts due to the presence of four well established TMOs and the active role the Metropolitan Council takes in providing regional incentive programs, vanpool services, and challenge programs. Historically the region has supported TDM efforts and continues to recognize its importance by continuing to fund and develop new programs.

3.3.2 Weaknesses

- TMO and regional focus
  - Limited TMO credit for results
  - Potential double counting of TDM participants when each TMO is keeping track of programs independently
  - Perception that the TDM Program is focused on Metro Transit and a handful of organizations
  - Data sharing
  - Perception that regional TDM program could take over responsibility of TMOs
- Funding focus
  - TMO Competition for limited dollars
  - Funding pie not big enough
  - Lack of private sector funding
- Municipal focus
  - Cities of St Paul and Minneapolis have relatively cheap and abundant parking
- Measurement specific focus
  - Hard to track outcome of TDM program
  - Overlap of which TMO gets credit
  - How to place dollar value on cross-jurisdictional efforts
- Vanpool specific focus

- Program awareness
- Lack of program goals and objectives for TMO partner involvement
- Inconsistency of marketing/promotions by TMO partners
- Staffing in non-TMO service areas

The weaknesses described by the Advisory Committee mainly focus on partner collaboration, funding, measurement of effectiveness, and awareness of the vanpool program. However, there are ways to overcome each of these weaknesses and none are fatal flaws. Many of these weaknesses can be countered by future opportunities, especially as new funding sources are identified, which should also be viewed as new opportunities for partner collaboration and communication. It should be noted that others also thought the level of collaboration between partner organizations is a current Strength, not a weakness.

The measurement weaknesses noted are also important outcomes of the SWOT. Performance measurement recommendations for future TDM programs that will address this weakness are specifically addressed in the next chapter (Chapter 4).

Table 10: Summary Strengths and Weaknesses

Strengths	Weaknesses
• 4 Strong TMOs • Regional collaboration • Regional TDM programs: GRH, Van-GO!, Bike2Benefits • Local TDM Ordinances	• Perception of effectiveness of TMOs • Coordination between TMOs and regional agencies • Limited funding and sole reliance on CMAQ • Local parking is cheap/free • No measurement standards • Vanpool awareness

3.3.3 Opportunities

- TMOs and Regional Collaboration
  - Cross marketing between TMOs
  - Seeking common goals with other transportation partners
  - Regular communication between transit partners
  - Strengthen relationships on regional committees
  - Tying TDM and TMOs efforts to performance measures on congested corridors
  - Design categories for types of TDM funding: TMO operations, competitive new pilot grants for TMOs, Metro Transit regional programs
  - Build upon eWorkplace
- Future TDM programs and strategies
  - Promote new and planned transit facilities
  - Promote use of future HOV infrastructure and structure future managed lanes as HOT (High Occupancy Toll) lanes
  - Transit partner coordination and testing of trip planning
  - Increase marketing of regional transit fare

    - Simplify vanpool fare structure
    - Increase marketing of GRH as a stand-alone benefit
- Positive external forces
    - Health initiatives
    - Manual on Transit Oriented Development
    - Technological advancements, particularly social networking

Distinct opportunities the Advisory Committee members saw include many infrastructure related subjects, such as the opportunity to market and promote new managed lanes and transit service as well as the existing vanpooling and GRH programs. In addition to these opportunities in physical improvements, there are several initiatives and cultural shifts like health programs and technological advancements in communication that are critical areas for TDM providers spread their services to wider audiences.

There are also some relational opportunities as TMOs, regional agencies, and other transit partners recognize the need to improve relationships so that together they can obtain new funding and administer and implement new programs.

3.3.4 Threats

- Infrastructure focus
    - Managed lanes charging for HOV (just becoming toll lanes only)
- Funding focus
    - Multi-modal choice may not get fair funding or attention
    - MnDOT budget deficit
    - Questions about long term reliance on CMAQ and funds from federal government agencies
    - Future competition for limited transportation funding
    - Perceived lack of fairness in funding allocation
- Local TDM Ordinances
    - TDM ordinances can be interpreted as an obstacle to development
    - TDM ordinances have no “teeth”
- Population focus
    - High turnover of participants in TDM programs and population in general
    - High unemployment
- Vanpool focus:
    - Perception of service overlap and duplication with regular route express service
    - Funding concerns / sources (outstate Minnesota and Wisconsin vanpools)
    - Lack of support for program changes within MTS

The greatest threat to long-term TDM programs is funding. The Advisory Committee recognized the need to diversify their funding and move away from relying solely on CMAQ. However, the competition for funding will be high and TDM programs must prove their value in terms that decision makers can understand and feel are important. If the TDM programs can prove this value, other funding sources may materialize as decision makers realize the positive impacts that increasing a TDM effort could have.

Table 11: Summary of Opportunities and Threats

Opportunities	Threats
• Collaboration • New or planned multi-modal infrastructure • Promoting existing TDM programs better • Positive external forces: health industry, social networking	• Long Term Funding • Managed lanes may be toll-only • Local TDM Ordinances • Participant turnover • Vanpool support and funding

3.3.5 How to turn the Weaknesses into Opportunities

The current weaknesses of the TDM program can be addressed by several of the opportunities identified by the Advisory Committee. A big opportunity is the promotion of future infrastructure and services, including HOT lanes and transit infrastructure and services. Because these transportation assets will provide a new service to travelers in the region, they need to be marketed accordingly to increase awareness and maximize their effectiveness. In summary, TDM providers need to take the successful programs they have today and show agencies such as MnDOT how TDM can improve ridership and vehicle occupancy.

Performance measurement is also part of the solution to demonstrating how TDM can increase utilization of new transportation infrastructure. The TMOs and partner regional agencies must have a consistent and standardized approach to measuring the benefits of TDM programs so that the administrators of assets such as managed lanes (MnDOT) can see the regional benefit of TDM programs. In addition, an equitable and transparent measurement process is also critical for TDM partner relationships and funding prioritization between current the TDM partner organizations.

3.4. Market Analysis

A TDM Market Analysis identifies the areas in the Twin Cities region that have population densities conducive to receiving marketing and promotion, but are not within a TMO service area or specific TDM program currently. These areas are truly the new areas for TDM efforts and identifying their travel characteristics can help pinpoint effective program recommendations. Full recommendations from the results of this analysis are presented in Chapter 4: Recommendations.

3.4.1 Employment Centers

Understanding how employment population centers are distributed throughout the Twin Cities region are the primary focus in this TDM Market Analysis. Because there are four healthy TMOs operating in specific service areas today, this analysis focused on the employment centers *outside* of the current TMO boundaries. Identifying these centers can help target TDM programs and services to new areas with high concentrations of employee travelers.

3.4.1.1 Employment Centers

Based on national research of screening tools from around the country, there are several screening tools that can be used to identify the strongest employment center markets for TDM in the region. In national land use and transportation research, employment density serves as a measurable variable that is really a proxy for many characteristics that influence the use of transportation alternatives, such as parking pricing, provision of transit service, and the level of local congestion. In places with high employment density, it is likely there will also be parking fees, frequent transit service, congestion, and other factors that influence the use of transportation alternatives. There are two downtown areas in the Twin Cities region today that have these characteristics. There are also areas of the region with low employment density where parking is likely to be free and little to no transit service is provided. However, congestion in these areas can still be pervasive and many other TDM strategies and techniques can be applied in these more suburban settings.

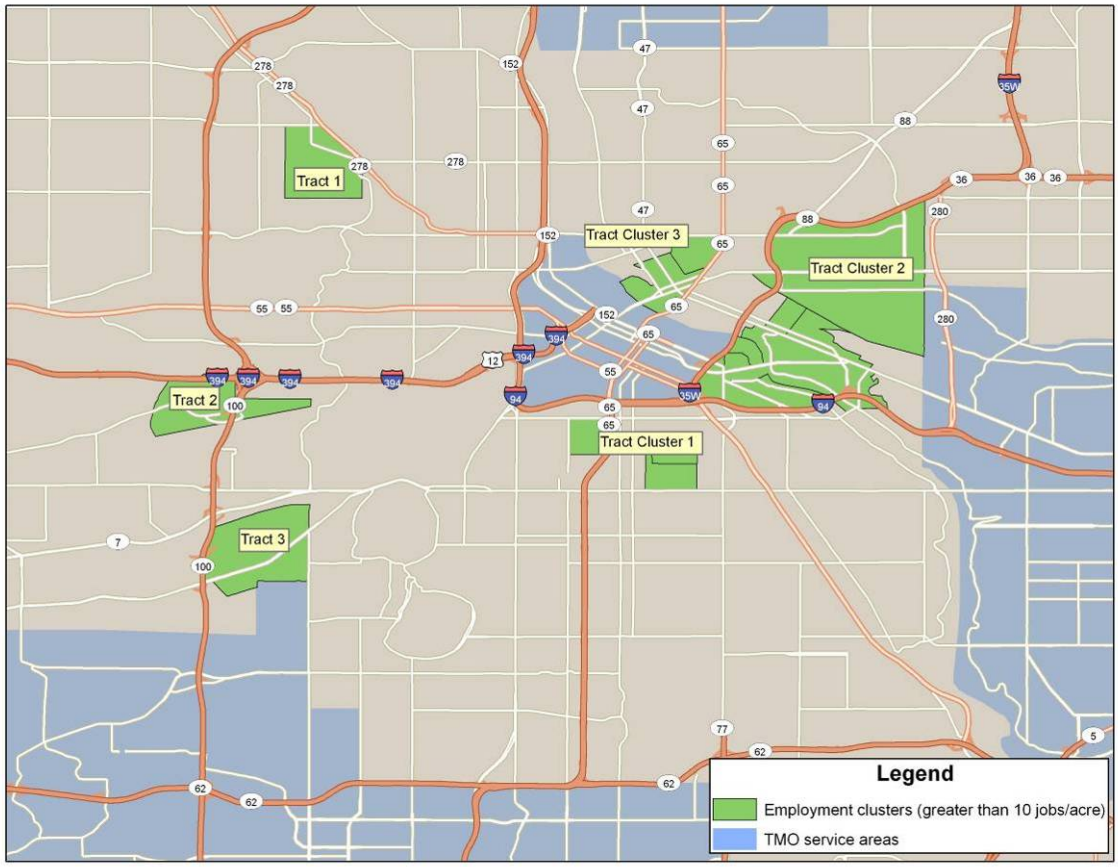
Overall, the host of TDM strategies and incentives provided in the Twin Cities region can serve both these types of areas. Specific thresholds of employment density and multimodal infrastructure availability that should be used to target TDM service areas include:

- A minimum of 10 employees per acre ***outside*** of downtown employment areas and greater than 25,000 employees overall. National research has shown that a minimum of 10 employees per acre is a baseline threshold density that influences the use of transportation alternatives in suburban office parks (Cervero 1988; Ewing and Cervero 2001). Employees in areas with this employment density were shown to use transportation alternatives such as carpooling, transit, vanpooling, and walking/bicycling more often than in areas with less density. However, the difference is very small, amounting to less than a 2 percent reduction in VMT solely due to the density of office development. Therefore, the provision of TDM in these areas is critical in boosting utilization of transportation alternatives that would not otherwise be appealing to commuters without the provision of incentives or specific strategies.

- A minimum of 50 employees per acre in ***downtown*** employment areas with over 50,000 employees. National research has also shown that areas with employment densities of 50 employees per acre and greater use transportation alternatives significantly more often than in areas with less employment density (Frank and Pivo 1994). This level of density is a proxy for many of the variables that would influence a commuter to use transportation alternatives, such as parking pricing, frequency of transit service, and congestion. The downtown areas of Minneapolis and St. Paul are currently the only downtowns in the Twin Cities region and are also within existing TMO service areas. While these areas have many characteristics that motivate people to use transportation alternatives without the influence of TDM, these areas are still very strong markets for TDM services. TDM services can market the wealth of transportation options provided in the area and facilitate individuals taking advantage of these programs more so than they would without TDM. The Parking for Poolers program in downtown parking ramps and the Commuter Connections store are two good examples of how TDM services in downtown settings can motivate travelers to take advantage of transportation alternatives.

Geographical employment data was obtained at the Census tract level from the 2008 Longitudinal Employer-Household Dynamics (LEHD) dataset for the Minneapolis-St.Paul-Bloomington Metropolitan Statistical Area (MSA). These data were refined to display employment centers with greater than 10 jobs per acre, as shown in Figure 9.

Figure 9: Employment centers in the Twin Cities region *(2008 LEHD data)*



Combined with the current TMO service boundaries, the figure shows that several tracts and clusters of tracts with over 10 employees per acre are not directly covered by TMO services.

In addition to these employment concentrations, many of the people who work in these tracts also live in areas not served directly by a TMO organization. To highlight more detail on the residential locations of the employees in these tracts, a series of successive figures are displayed in Figures 10 through 15 with one map per tract cluster. These figures show that many of the employees who work in the identified tracts in Figure 9 also live in areas that are *not* within TMO service areas currently. It should be noted, however, that these residents could be receiving TMO services, but in an indirect fashion and most likely not directly from their employer or the TMO itself.

Figure 10: Residential Home-end of Employees in Tract 1 ***(2008 LEHD data)***

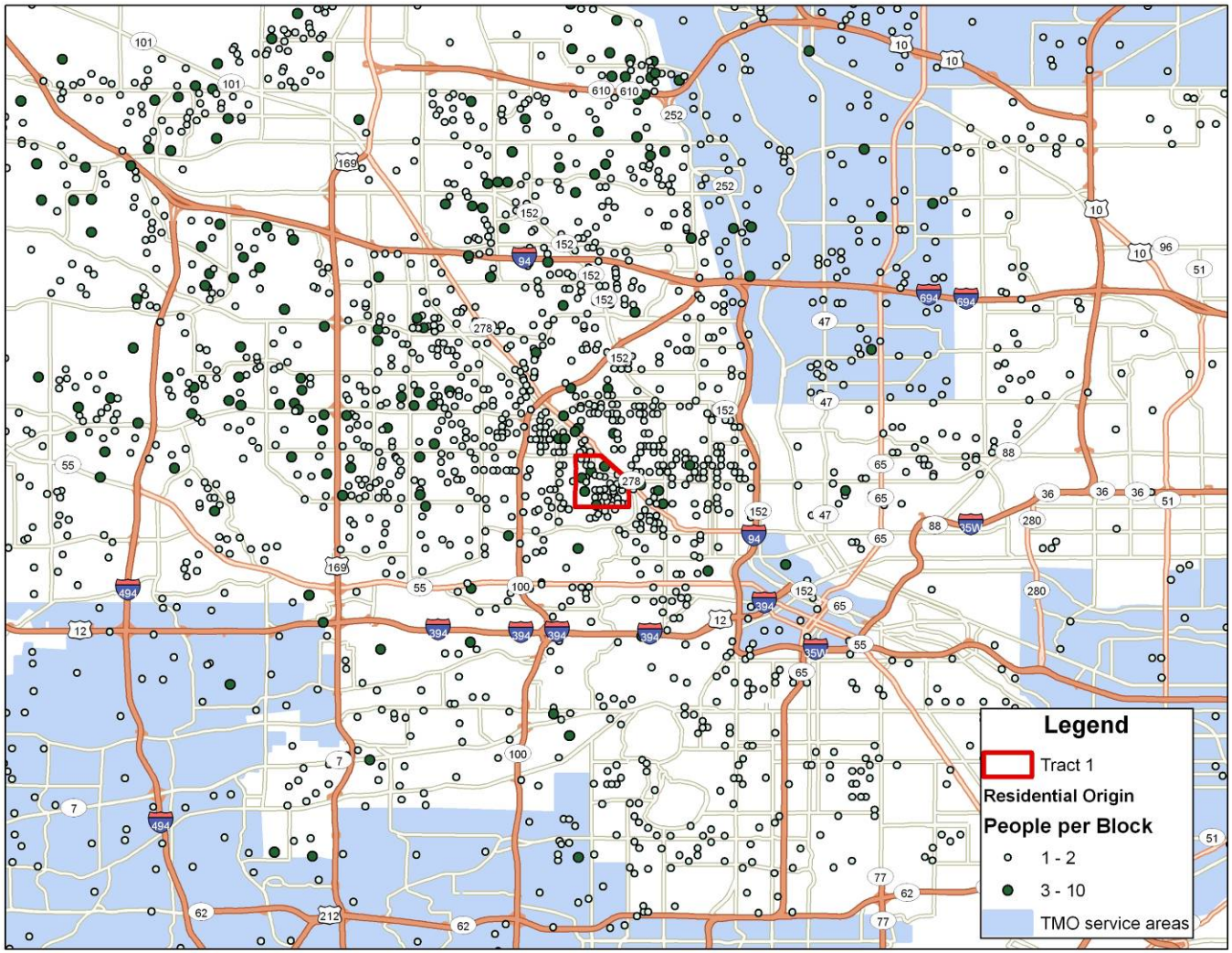


Figure 11: Residential Home-end of Employees in Tract 2 *(2008 LEHD data)*

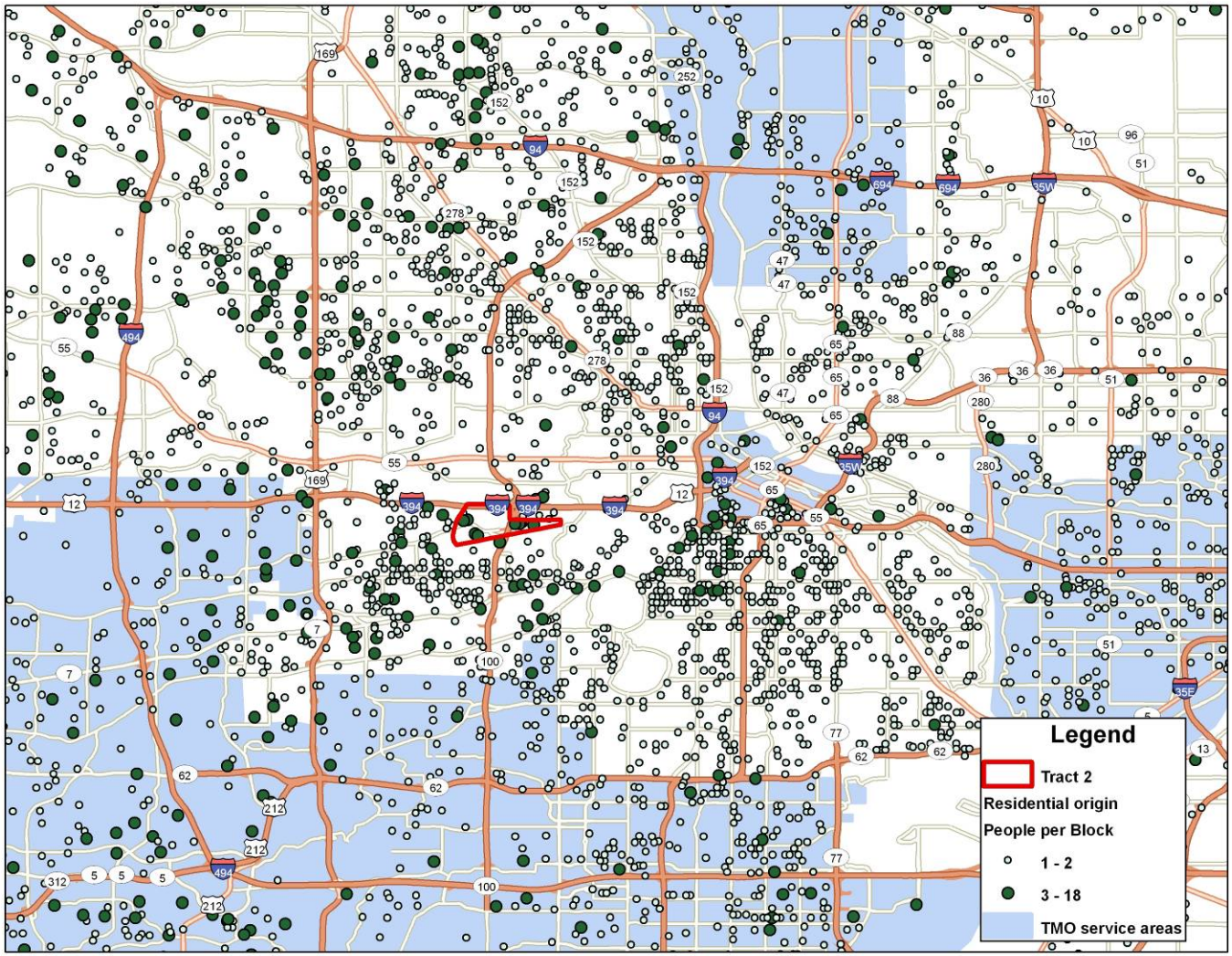


Figure 12: Residential Home-end of Employees in Tract 3 *(2008 LEHD data)*

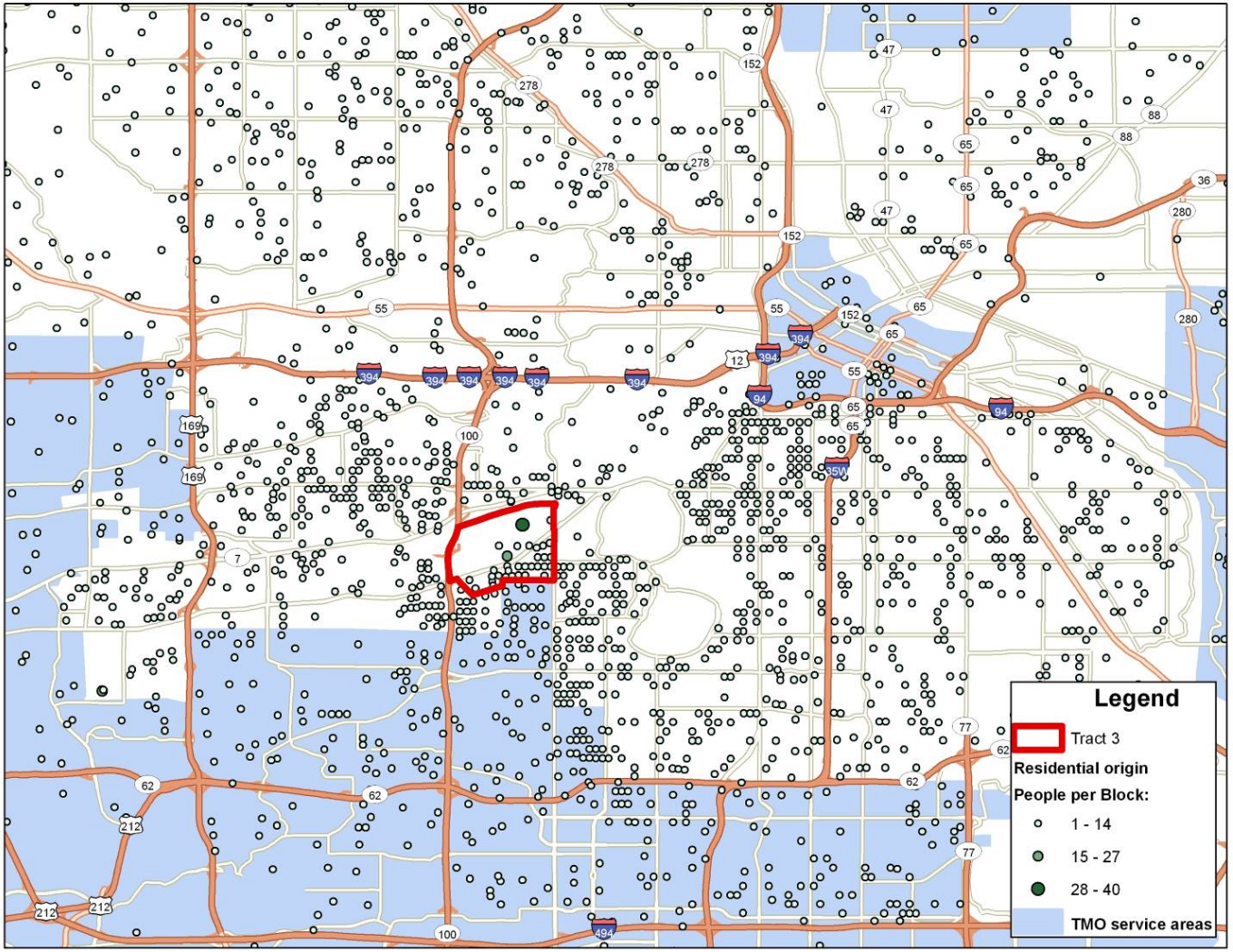


Figure 13: Residential Home-end of Employees in Tract Cluster 1 *(2008 LEHD data)*

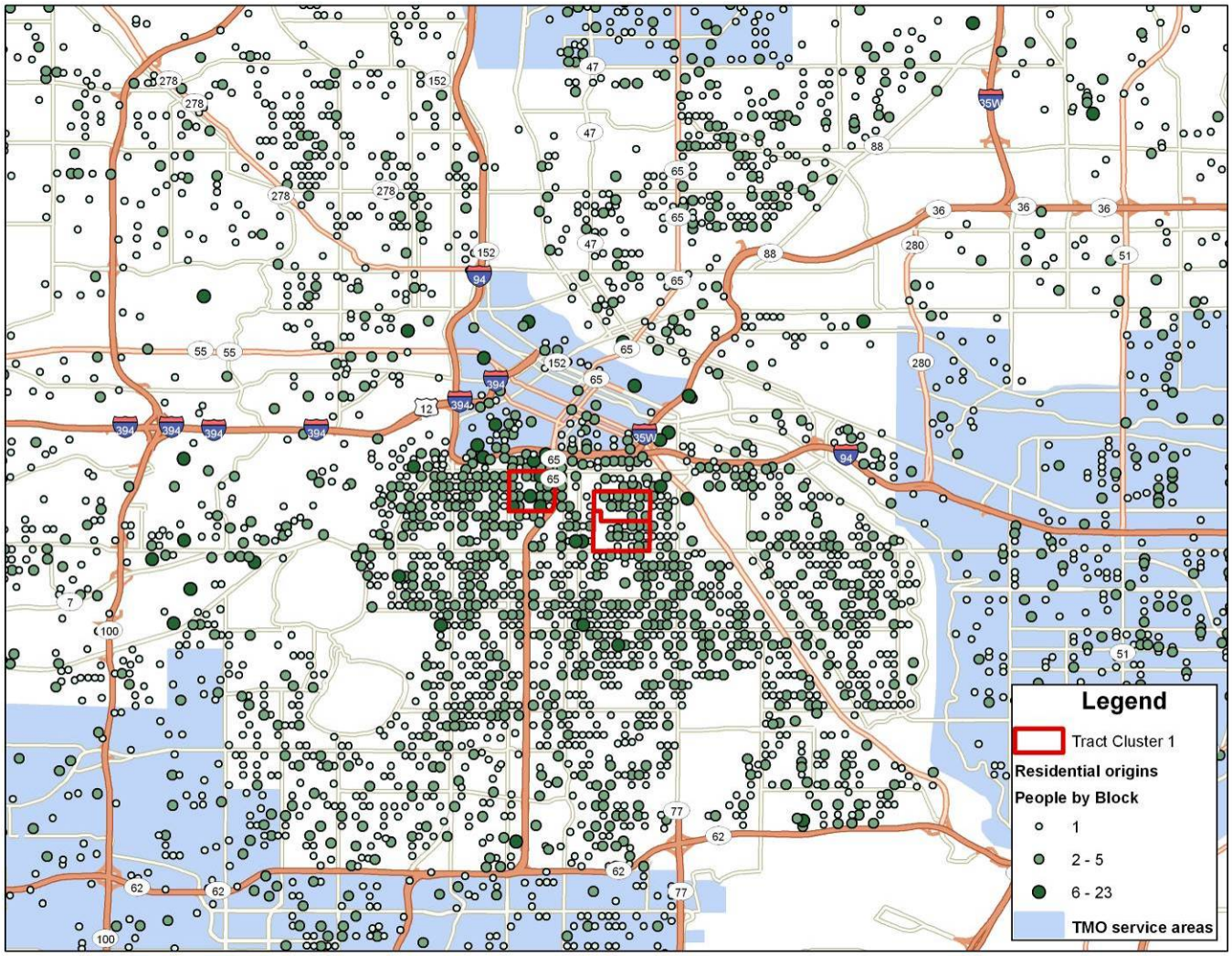


Figure 14: Residential Home-end of Employees in Tract Cluster 2 ***(2008 LEHD data)***

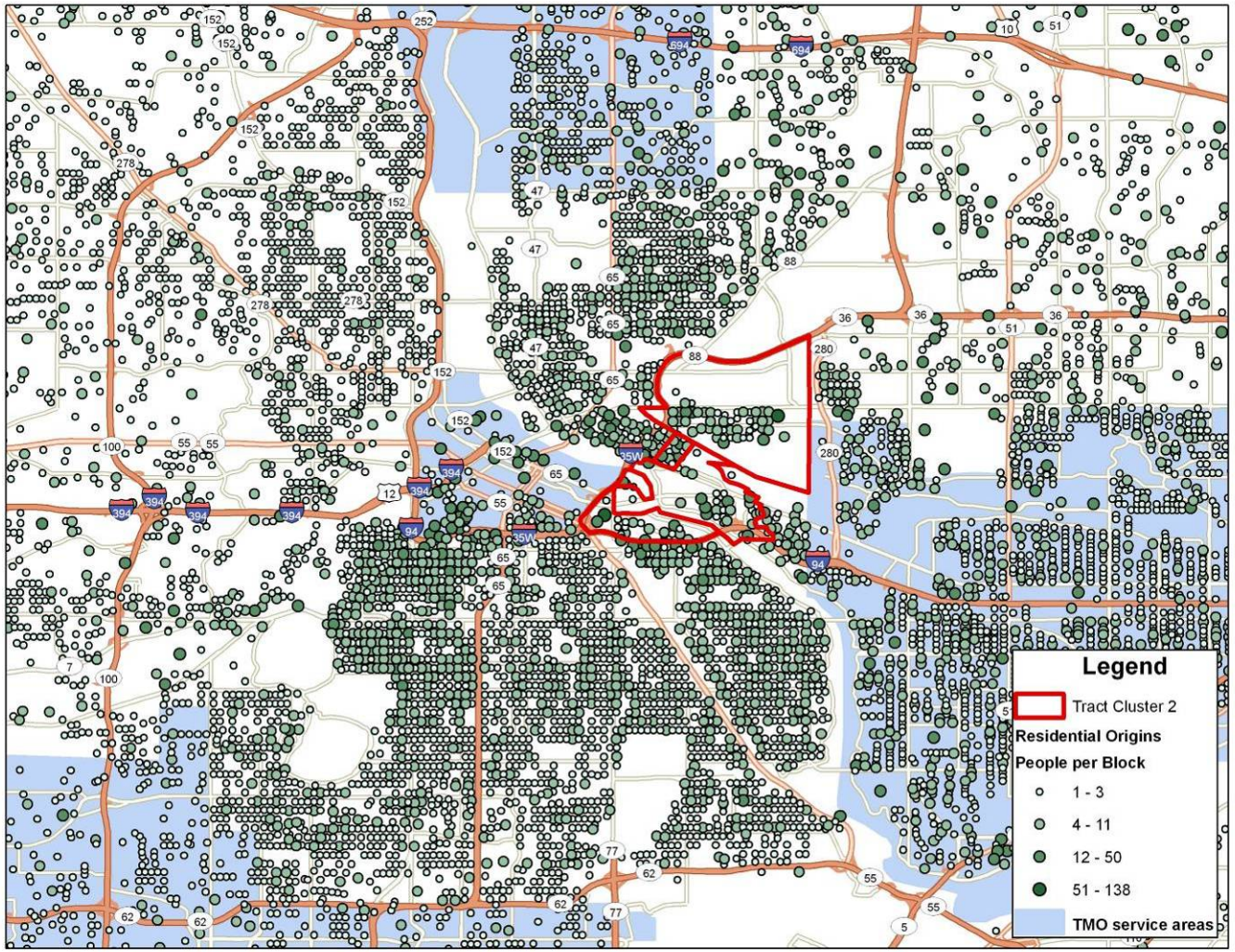
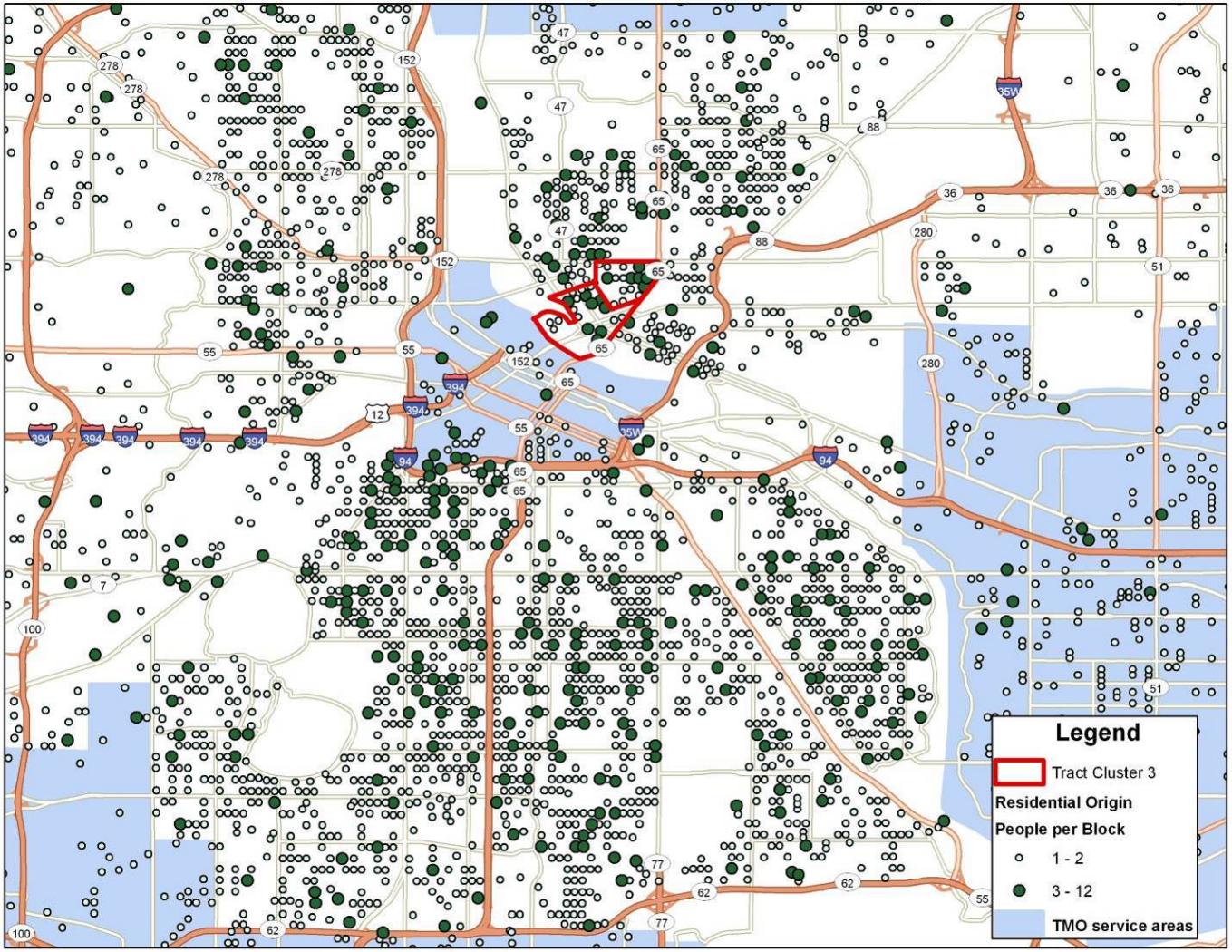


Figure 15: Residential Home-end of Employees in Tract Cluster 3 (*2008 LEHD data*)



The successive figures show that a large number of residents who commute to the targeted employment tracts and clusters do not reside in a TMO service area on the home end. There is a particularly strong residential population south of Minneapolis along the I-35W corridor, especially for the employment clusters in that area (Figures 8 and 9).

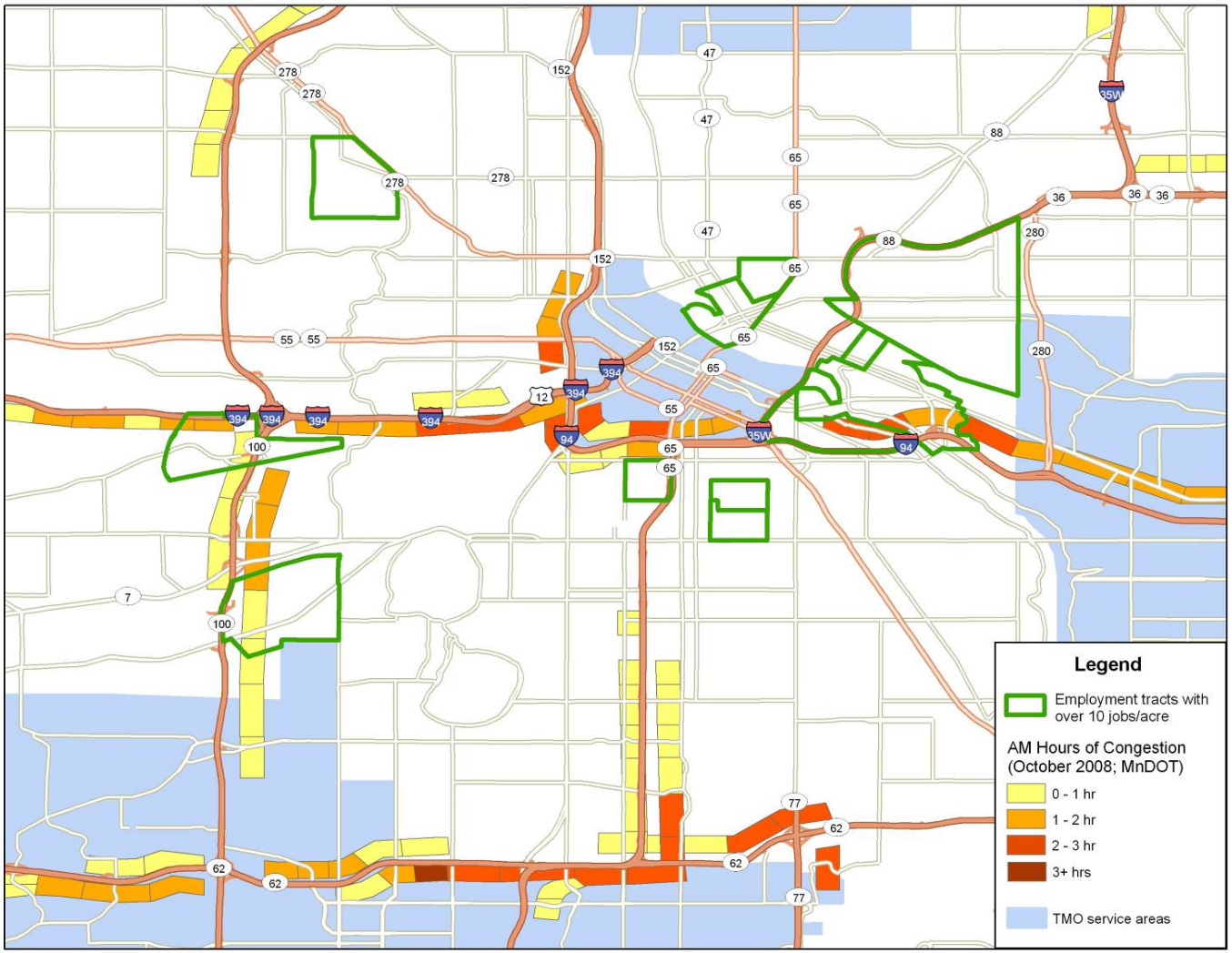
3.4.2 AM and PM Peak Congested Corridors

An additional data source that was available for the Market Analysis was 2008 congestion data from MnDOT. These data show the total hours of congestion during AM and PM weekday periods on roadway segments as compiled from their highway monitoring system. For the purposes of this analysis, these segments were overlain with the targeted employment tract clusters from the previous section. This enables an analysis that highlights areas where AM or PM congestion occur that are close or adjacent to the targeted employment centers that do not receive direct TMO TDM efforts today.

3.4.2.1 AM Congested Corridors and Targeted Marketing Areas

The AM Congested Corridor map is displayed as Figure 16. This map shows the congested corridors along I-394 Corridor to the west of Minneapolis and SR 100 in-between I-494 and I-394 are two areas that may warrant more specific attention for TDM services. However, the congestion that occurs in these corridor segments is likely generated by demand from many other areas than just theses segments along the corridor itself. Nonetheless, a part of this congestion is locally oriented travel and reducing that travel through TDM services would be beneficial.

Figure 16: AM Congested Corridors *(2008 MnDOT data)*

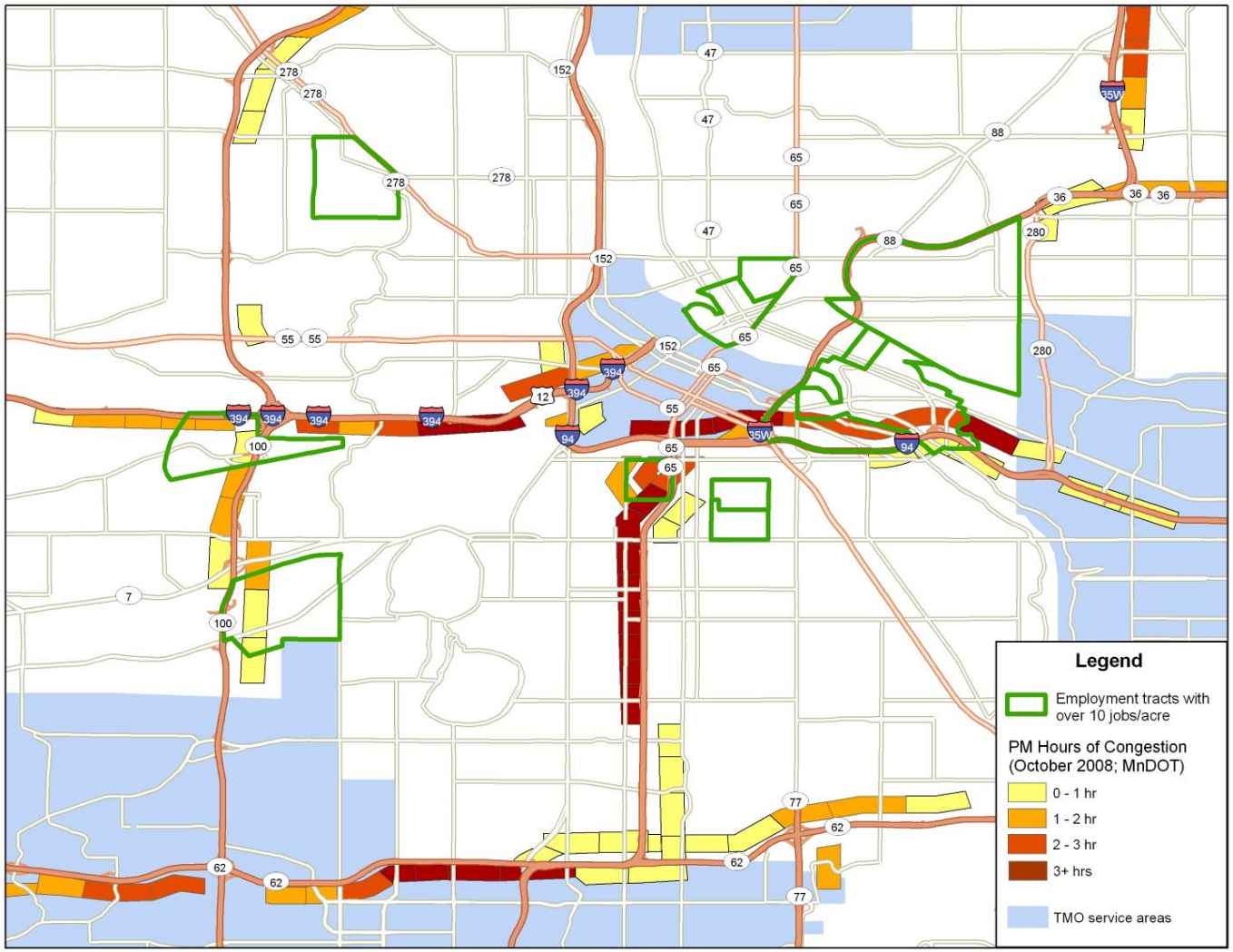


3.4.2.2 PM Congested Corridors and Targeted Marketing Areas

The PM Congested Corridor map is displayed as Figure 17. Like the AM Congested Corridor map, the PM map shows there is also congestion along I-394 and SR 100 west of downtown Minneapolis where there are currently no TMOs directly serving the corridor. As in the AM, reducing a part of the locally-bound PM congestion in this corridor would be beneficial. There is a particular high concentration of employment at the interchange of SR-100 and I-394.

The PM congested corridors maps also shows there is also a large degree of congestion along the I-35W corridor south of downtown Minneapolis. Presumably this is a large population of commuters leaving the urban area in the evening and commuting to residences south of Minneapolis. Because several of these segments show large levels of congestion and they are in areas of frequent transit service, further TDM service is warranted along this congested corridor. In addition there are several employment clusters (greater than 10 employees per acre) along this corridor just south of the Downtown Minneapolis TMO service area.

Figure 17: PM Congested Corridors *(2008 MnDOT data)*



Chapter 4: Recommendations

The recommendations in this chapter are directly linked to the Chapter 1 TDM Study Goals that guided the planning process of this study. These recommendations serve as a supporting implementation strategy for these goals. Implementing these recommendations will achieve the policies set forth in this plan, particularly the VMT reduction goal specified in TDM Study Goal 8.

The recommendations are supported, in part, by the research and analysis summarized in Chapter 3: Evaluation. Chapter 3 summarized the best practices of TDM programs throughout the United States. In addition to this research, several efforts of coordination with the Advisory Committee for the TDM Study were conducted between December 2009 and February 2010. These analyses included a meeting to identify the strengths, weaknesses, and future opportunities and threats to the Twin Cities TDM program as well as a meeting to discuss the best practices of other TDM programs and review the draft goals presented in this chapter.

4.1. A Traveler Focused TDM Program

TDM Study Goal 1: Traveler Focus. Develop a regional TDM program with a wide variety of strategies that are easily understood and utilized by travelers.

TDM Study Strategy 1.1: Consolidate provision of regional TDM tools and services.

Metro Transit will provide the majority of regional TDM program services. However, it is acknowledged the success of each of these services is significantly influenced by the outreach and promotion conducted by local TDM partners. These services and it annual Commuter Challenge:

- Bike2Benefits
- Parking Perks for Poolers program
- Guaranteed Ride Home
- Specialized transit pass products
- Commuter Choice Award and Best Workplaces

It is recommended Metro Transit also provide all regional TDM tools. These tools include:

- Online ridematching services to individuals. Increase the ability for local partners to share their data as well as access to the overall ridematching database.
- Leading marketing efforts related to the Van-GO! program (MTS will maintain administration of this program)
- Maintain and enhance the use of the regional TDM database of contacts and participants in the TDM program, from both regional efforts and local TMO efforts.

TDM Study Strategy 1.2: Develop a regional “one stop shop” web-based resource of commuting strategies and incentives for the traveler. Build this site to give equal weight to all modes of travel, including ridesharing, transit, bicycling, and walking.

Today, information about regional TDM tools and services are spread between Metro Transit and MTS. Drawing from best practices like Atlanta’s Clean Air Campaign, it is recommended that a “one stop shop” commuting resource be developed to enable a traveler to obtain information quickly and easily. Today it is not obvious to the traveler where to find information about most TDM strategies as they are spread across many web sites (either Metro Transit’s web site, the Metropolitan Council’s web site, or the TMO web sites). This web site will serve as a portal with

information about all modes of transportation and the TDM products and services available for each and should direct travelers to TMOs' or other web sites as appropriate.

Because Metro Transit is currently developing a redesigned web site that provides more visibility, information, and resources on all modes and because it administers most of the TDM services and products available regionally today, it is recommended Metro Transit's web site function as the "one-stop-shop" for regional TDM resources. Metro Transit should work with the TMOs to determine appropriate links to and from this web site.

A primary objective of developing this resource is to grant equal marketing and communications efforts to all modes and the TDM services available for each of them. Also, this web site should contain online enrollment forms and databases so that users can immediately request or apply for TDM products or services. A specific example includes enrolling new vanpool subscriptions online for the Van-GO! program, rather than the paper based system used today. For many of the regional TDM services, "paperless" registration and tracking is already the norm (such as the Bike2Benefits program). An example of a comprehensive online ridematching resource for carpoolers and vanpoolers is available in the San Francisco Bay Area through the Metropolitan Transportation Commission. The web site is available at https://www.ridematch.511.org/SanFrancisco/

TDM Study Strategy 1.3: Metro Transit, MTS, and local TDM partners will work together to promote each other's services via web sites and the internet.

Equal promotion of services and initiatives between the web sites of regional services and local TDM partners is strongly encouraged. Linking the regional services into local TMO efforts is an important component of the one stop web site. Conversely, it is also important that local TDM partners establish links and refresh their web sites to promote and link to regional services. The Metro Transit web site would serve as the primary portal for regional services (identified in Strategy 1.1). The TMO and other local web sites would serve as the primary portals for outreach and innovation at the local level. All web sites should include educational resources for travelers.

TDM Study Strategy 1.4: Coordinate updates to the *ArriveMN* web site (www.arrivemn.com), developed by MnDOT in 2006, with the one-stop web site. The *ArriveMN* web site can complement the one-stop web site and drive traffic to this region-specific resource.

4.2: Regional TDM Program Structure

TDM Study Goal 2: Program Structure. Structure the regional TDM program and the provision of funds to local TDM partners that ensures resources are maximized toward areas of greatest benefit.

TDM Study Strategy 2.1: Clearly outline the roles and responsibilities of local, regional, and state TDM partners.

All the TDM partners have critical roles to play in the TDM program of the Twin Cities region. Local governments and TMOs have a primary responsibility to perform the outreach and marketing necessary to link travelers with regional incentives and strategies. The regional and state agencies involved in TDM have primary responsibilities for planning, program administration, funding allocation, and evaluation. The proposed roles of TDM partners and agencies are different than the structure of the program as it exists today. Specifically, the proposed changes to the roles and responsibilities of the TDM partners are as follows:

- Transportation Advisory Board (TAB). The TAB remains responsible for distributing CMAQ funding to the various TDM programs. The TAB will determine the level of funding available for TDM and make final determinations on which programs are funded, either as ongoing activities or projects selected competitively.

- Metropolitan Transportation Services (MTS). MTS remains the regional organization for TDM strategic planning. New roles include providing recommendations to TAB for allocation of CMAQ funding for TDM programs, oversight of CMAQ TDM contracting performed by Metro Transit, and conducting region-wide TDM program evaluation in coordination with MnDOT and local and regional TDM partners. The contracting oversight will include an ongoing evaluation of internal roles and responsibilities to determine the best and most efficient way to deliver TDM funding to partners. Each of these CMAQ contracting and evaluation responsibilities will be applied uniformly across all TMOs and local TDM partners and adjustments will be made as recommended by MTS. MTS will also work to populate and provide a regional database of local TDM policies and regulations related to TDM ordinances and development review requirements.

- Metro Transit. Metro Transit remains the primary provider of regional TDM services and incentives as well as the provider of regional tools, such as the ridesharing web site and database. Metro Transit will also continue to provide CMAQ TDM contract management with local TMOs and other CMAQ TDM grant recipients. New roles include marketing the Van-GO! program which will be transferred from MTS in order that marketing of all regional TDM services and incentives are provided through one organization. Modified roles include targeting TDM efforts to residential and employment centers that are outside of TMO service areas.

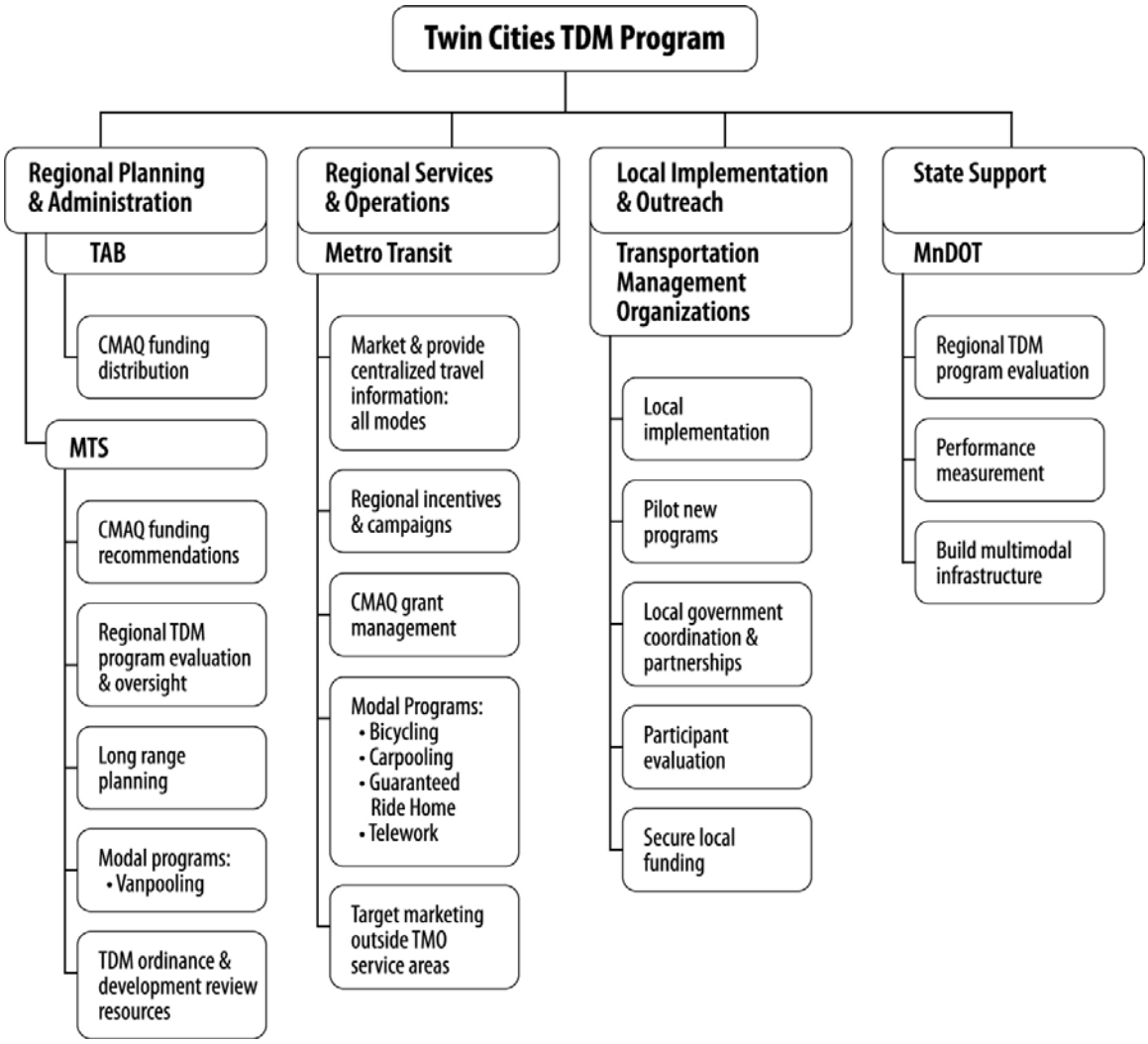
- MnDOT. MnDOT's primary responsibilities include coordinating with MTS to perform regional evaluation of the TDM program, potentially through the annual Omnibus survey. In addition, MnDOT will coordinate with MTS to incorporate TDM program results into future performance measures, particularly the impact TDM programs have to person throughput. As improvements are made to major corridors, especially those targeted with managed lane improvements, MnDOT will work with local TDM partners to promote high occupancy vehicle use in these areas. During construction periods, MnDOT will also work with local TDM providers on construction mitigation efforts.

- Local Transportation Management Organizations (TMO). Local TMOs will continue to implement their own TDM programs and services, pilot new TDM concepts locally, and continue the outreach and promotion of regional TDM services and incentives. New roles include following a streamlined process for monitoring participation in programs and evaluating the long-term impacts of local TDM projects. In addition, TMOs will be participating in a regional CMAQ funding application process (see TDM Study Goal 5).

- Local government. Local governments will also continue to develop their own policies that encourage use of transportation alternatives, such as transportation demand management ordinances and development review requirements. The cities and counties of the Metropolitan Council region will continue to support the TDM program through providing local matching funds and resources to CMAQ grant recipients.

The existing and new roles for TDM partners are reflected in a new organizational diagram for Twin Cities Region TDM programs (Figure 18)

Figure 18: Twin Cities regional TDM program organization



TDM Study Strategy 2.2: Designate the responsibility of regional TDM program implementation within the Metropolitan Council to Metro Transit with oversight by Metropolitan Transportation Services (MTS). MTS oversight and grant management will ensure that equal attention is paid to all modes of transportation and not biased towards transit.

The recommendations for this strategy are the responsibility of both Metro Transit and MTS. These two subdivisions of the Metropolitan Council working together will ensure a cohesive regional TDM program is delivered to travelers. Recommendations by subdivision are:

- Metropolitan Transportation Services (MTS)
    - MTS will periodically review the regional one-stop web site and local TDM provider web sites to ensure current information is available for travelers.
    - MTS will be the primary author of the annual report on the TDM program that records the outcome of CMAQ TDM funded programs. Currently this effort is provided by Metro Transit. Transferring this responsibility to MTS will help

establish MTS as the regional organization that oversees the regional TDM providers, including Metro Transit and the local TMOs.

- Metro Transit

    - Metro Transit will host regular TDM provider meetings with TMOs and MTS where information can be shared and coordination encouraged between groups. Today these groups are meeting regularly, but this strategy ensures that coordination continues into the future. These meetings will also be opportunities to link to educational offerings, such as the University of Southern Florida's Center for Urban Transportation Research (CUTR) periodic webinars on new advancements in TDM.

    - Metro Transit will ensure that the regional TDM services they implement are integrated into regional marketing efforts. The concept of the Metro Transit "one stop shop" web site will serve as a source of information on all modes.

TDM Study Strategy 2.3: Move the marketing of the Van-GO! program from MTS to Metro Transit. Having the vanpooling program marketed within the transit organization will promote vanpooling more equally with the other regional TDM services that are currently managed by Metro Transit.

Marketing Van-GO! through Metro Transit will likely boost participation in vanpooling as it will be marketed more consistently by all TDM partners and branded with the overall TDM program. In addition, potential vanpooling participants will find information easier when the program is bundled with other TDM services that Metro Transit markets.

4.3. Targeted Markets

TDM Study Goal 3: Target Markets. Target the geographic areas of the region detailed in Section 3.4.1 where TDM strategies will be most successful and would make more efficient use of existing transportation infrastructure and services. National research indicates that centers of high employment and high employment density are the most successful target markets for TDM activities.

TDM Study Strategy 3.1: TMOs will focus outreach and local services in territories where they are established. Metro Transit TDM Employer outreach services will primarily be focused on employment centers with 10 or more employees per acre and greater than 25,000 employees overall that fall outside of TMO service areas. These employment centers are highlighted in Chapter 3: Evaluation, Section 3.4 .1.1. MTS will continue to track employment growth in the region and identify these employment areas in coordination with Metro Transit.

TDM Study Strategy 3.2: Local and regional TDM efforts should also be focused in corridors where the region has made significant investments in multimodal options, including transit service, managed/HOV lanes, and bicycling/walking facilities. The presence of these options enables TDM efforts to be more successful.

TDM Study Strategy 3.3: MTS will screen proposed transportation management organizations for funding eligibility for CMAQ and make recommendations to the TAB.

A standard set of criteria for transportation management organization (TMO) formation will help determine whether TMOs qualify for the CMAQ funding described in TDM Study Strategy 5.1.

If a new TMO forms and desires to share in regional CMAQ funding for TDM, the criteria will be used by MTS to determine potential success.

The recommended criteria for defining successful TMOs are presented in Figure 19. These criteria were developed by UrbanTrans from experience and research in the development of these organizations nationwide. Recognizing that each TMO service area has unique characteristics, these criteria can only serve as general guidelines for future TMO formation.

In Figure 2, the column labeled “high” displays the kind of characteristics that are highly desirable for successful TMO formation and implementation of TDM services. In the Stakeholder Commitment and Financial Sustainability categories of the criteria as many of the high characteristics as possible should exist in the area before a TMO is formed. If there are weaknesses in some of these categories, an action plan should be developed that identifies steps and actions to take to remedy these weaknesses.

Figure 19: Transportation Management Organization Formation Criteria

Formation Criteria	***TMO Success Indicators***		
	High	**Medium**	**Low**
Transportation Challenges:			
Traffic	Existing and Growing Congestion	Emerging Congestion	No or Minimal Congestion
Access & Mobility	Major Difficulties	Some Challenges and/or Lack of Alternatives	Easy Access
Employers & Employees	Major Recruitment and Retention Problems	Some Recruitment and Retention Challenges	No or Minimal Employment Recruitment and Retention Issues
Regional Characteristics:			
Activity Center	Widely Recognized Activity Center	Locally Known Area	Undefined Area
Employment	Over 50,000 Employees	25,000-50,000 Employees	Less than 25,000 Employees
Economic Development	High	Some Opportunity and/or Diminishing Due to Access Issues	Stagnant
Stakeholder Commitment:			
History	Success with Transportation Issues	Some Commonality in Issues and Actions	No or Minimal Previous Collaboration
Core Group/Champion	Identifiable, Existing	Potential Group or Champion	None
Financial Sustainability:			
Multiyear Commitment	Guaranteed Long-Term Sources	Short-Term Commitments	No or Minimal Commitments
Stakeholders	Strong Group, Resources Identified	Commitments, but No Resources, Wait & See Attitude	No or Minimal Commitments

4.4. TDM Strategy Recommendations

TDM Study Goal 4: Strategy Recommendations. The region will invest in TDM strategies with a proven track record of success. These strategies may include those that exist in the region today as well as piloted new strategies from national best practices.

TDM Study Strategy 4.1: Metro Transit and local TDM partners will continue to expand and refine current TDM strategies.

The current strategies implemented today by regional and local TDM partners include:

- Rideshare services
- Van-GO! services
- Transit services (MetroPass and CollegePass)
- Guaranteed Ride Home
- Commuter Challenge
- Bike2Benefits
- Parking for Poolers
- Local TMO outreach efforts in service areas (fairs, events, etc)
- Anoka County construction mitigation efforts
- Downtown Minneapolis TMO Commute Connection store transit pass sales, carpool/vanpool registrations and other commuter assistance
- St. Paul Smart Trips Individualized Marketing programs
- 494 Commuter Services Individualized Marketing programs

Recommended programs to refine include ideas drawn from national best practices and recent experience piloting new programs. Recommendations include:

- **Flexible employer pass products.** Metro Transit should continue to provide discounted pass products to employers (e.g., MetroPass). They can work to increase the flexibility of current pass contracts with employers to allow for monthly enrollment. Many regional transit agencies, including the Denver region's FlexPass program, have started using monthly pass programs that let employers choose how many passes they would like to purchase monthly for their employees. In addition, many agencies have also implemented flexible programs where employees can choose if they want a pass month to month and have the option to purchase those passes pre-tax.

- **Enhanced social media tools to promote ridesharing**. With the development of the new ridesharing database tool, Metro Transit should also look for social media tools to increase registration in the database and carpool matches.

- **Individualized marketing**. Continue to improve the use of social marketing in TDM and build off the recent successful experience of residential-based individualized marketing project pilots in the region. Expand to target employers with individualized marketing programs.

- **Telework**. Depending on the success of the eWorkplace program, utilize the tools and resources that were built and implement telework programs at the local level.

- **Carsharing**. Work with local carsharing providers as demand for these services grows and is warranted in other parts of the region. Support carsharing services as they look for new markets by raising awareness and helping with promotion.

- **Construction mitigation**. Working in coordination with agencies such as MnDOT or county highway departments, Metro Transit and local TDM partners should look for opportunities to provide construction mitigation services such as temporary vanpool services, express transit services (shuttle or fixed route), and assisting employers to implement flexible workplace arrangements (telework, flex hours, and compressed work weeks). Both Metro Transit and local TDM providers will typically be supporting a larger construction mitigation program led by MnDOT and/or county highway departments by implementing specialized local TDM projects.

TDM Study Strategy 4.2: The region will pilot new TDM strategies at both the regional and local level. Initial concepts for these strategies include:

Basic Strategies

- **Ongoing incentive campaigns**. Develop ongoing incentive campaigns, modeled after the programs implemented in regions such as Atlanta and San Francisco.

- **Employer grants**. Create a grant program for employers to implement specialized TDM strategies such as telework, modeled after the Telework!va program.

- **Pre-tax benefit assistance**. Formally implement a pre-tax training and development program for employers. Metro Transit could also work with third-party administrators of these programs to facilitate implementation.

- **Promote new multimodal infrastructure**. As managed/HOV lanes, new transit services, bikesharing, carsharing, and other multimodal infrastructure is built or provided in the region, local TDM partners should develop campaigns and other activities to increase the use of these facilities. Partnerships with MnDOT, Metro Transit, and other agencies will need to be formed to achieve successful programs.

- **Implement TDM for special events and fare-free transit zones**. Special events, such as Twins baseball games, concerts, and large events in the downtown areas are good opportunities to encourage use of transportation alternatives. Strategies include offering discounted parking for carpools and transit pass discounts and/or fare free zones for pre and post event rides.
- **Trip Reduction Calculator**. Trip reduction calculators are typically online tools that calculate the personal financial savings in gas, parking, and vehicle maintenance costs by using a transportation alternative to driving alone. Users enter information such as trip distance, vehicle fuel efficiency, and frequency of travel and the calculator details how much they could save on a monthly or annual basis if they used a transportation alternative.

Advanced Strategies

- **Add TDM messaging to variable message signs and other real-time information sources.** Work with MnDOT and local governments to identify appropriate locations to add TDM-related messaging to freeway variable message signs. For example, other cities have successfully integrated messaging about available Park-n-Ride capacity and express bus travel times along congested corridors with HOV lanes.
- **Implement parking cash-out/parking opt-out.** Parking cash-out is a strategy for commuters that have parking paid for by their employers and are offered the cash equivalent of that parking if they decide to use transportation alternatives. Parking opt-

out is a similar case where parking is not paid for by employers, but still permitted (for example hospitals or government sites) and the employee has the option of opting out of the available parking permit for a significant subsidy from the employer to use alternative transportation. Piloting this strategy at the right locations can have a very significant impact on trip reduction, but high density of transportation alternatives and services are needed to support this strategy.

4.5. CMAQ TDM Funding Process

TDM Study Goal 5: CMAQ TDM Funding Process. Allocate future funding for TDM based on monitored performance and sound estimates of impact.

TDM Study Strategy 5.1: Categories of TDM funding will be developed that ensure critical activities are supported during each funding cycle.

The *Twin Cities Metropolitan Area Travel Demand Management Program 2008 Annual Report* documented the funding distribution of CMAQ TDM funds by organization. Table 12 contains these organizations and their respective CMAQ TDM funding percentages. It is recommended that CMAQ TDM funding categories in the future be designed based on the needs of regional and local TDM programs based, in part, on this table.

Table 12: 2008 CMAQ TDM funding distribution

Organization	*Percentage Funding*
Anoka County TMO	6%
Downtown Minneapolis TMO	12%
St. Paul Smart Trips	9%
494 Commuter Services	11%
Metro Transit	58%
Van-GO!	4%

Moving forward into future funding allocation processes for 2011 and beyond, CMAQ TDM funding should be structured through the following categories to clearly delineate regional versus local sources of CMAQ TDM funding:

- Regional services. These services include regional tools and services such as operation of the regional “one stop shop” web site, the ridesharing database, and the marketing of the Van-GO! program. In addition, evaluation and administration efforts conducted by MTS and Metro Transit will be covered under this category of funding.

- Baseline local TMO funding. This category is intended to provide TMOs with a steady source of operating funds for local outreach and promotion of the regional TDM program and related services.

- Competitive projects. Specific project grants will be awarded competitively for local and regional TDM pilot projects depending on funding availability. The emphasis of this category is to pilot new and invocative TDM ideas that may be successful enough to eventually warrant baseline local TMO funding or regional services funding.

The amount of funding available for TDM in all three categories above will vary between funding cycles and the availability of funding in the overall CMAQ program. Funding for each cycle will be determined by the Transportation Advisory Board (TAB) in a sub-process that uses funding set aside during the larger transportation improvement program (TIP) process. MTS will provide funding recommendations to TAB based on evaluated performance and specific identified needs.

TDM Study Strategy 5.2: Funding allocation for the competitively awarded projects will be determined through a biennial application process managed by MTS (for TAB) that is open to all public agencies, non-profits, and entities of the state.

The application process for competitively awarded local projects will serve as an open and transparent way to fund CMAQ TDM grants for the whole region. It is also a performance-based process to allocate funding to TDM strategies that will produce the greatest impact in terms of VMT reduction and other factors. Each regional and local TDM partner will apply to the TAB for a CMAQ TDM grant to fund a specific project. Before each funding cycle is posted, all local TDM partners will be invited to a regional TDM workshop where the ranking system for projects is finalized. A preliminary ranking system is shown in Table 13.

Table 13: Suggested CMAQ TDM Scoring Criteria

Preliminary Scoring Criteria	*Maximum Points*
Quantification-based:	
Estimated cost effectiveness ($/mi reduced)	20
VMT reduced & air quality improvement	10
Location: 10 employees per acre density or greater and at least 25,000 employees in area	20
Presence of transportation alternatives (i.e., HOV lanes, frequent transit service, bicycle and pedestrian facilities)	20
Commitment by local partner(s) to continue funding if program is successful	10
Subjective-based:	
Evaluation methodology	10
Level of innovation (new ideas or concepts not yet implemented in the region)	10
Grand Total Maximum Points	100

Once applications are completed, MTS will review the accuracy of the applications and give feedback as necessary to applicants on VMT savings estimates or other details on scoring criteria. All applicants will review the applications for accuracy and score the subjective-based component of the applications. The TAB will convene a series of meetings to make final ranking and funding decisions.

TDM Study Strategy 5.3: A new TMO that applies for any source of CMAQ TDM funding will be screened against the criteria established in TDM Study Strategy 3.3.

TDM Study Strategy 5.4: TMOs can expand their current service area boundaries to work with employers, governments, or other organizations with an interest in TDM. Funding for these expanded boundary projects will be eligible for the competitive grant funding summarized in Strategy 5.1. For those projects that demonstrate success, TMOs can permanently expand their service area boundary and may receive an increase in baseline funding to support efforts in that new area. For those projects that are not successful, the TMO boundary will not permanently expand into that area and Metro Transit will continue to provide a baseline level of service with regional services funding.

TDM Study Strategy 5.5: TAB and MTS will develop a funding cycle for TDM CMAQ funds that recognizes the shorter implementation timeline for TDM activities, relative to larger construction projects.

TDM Study Strategy 5.6: MTS and Metro Transit will work to streamline the sub-recipient process of providing funding for local TDM partners.

4.6. Performance Measurement

TDM Study Goal 6: Performance Measurement. Develop consistent measurement methods for evaluation of the CMAQ-funded TDM program.

TDM Study Strategy 6.1: Incorporate a series of questions to evaluate the effectiveness of the TDM program with the region-wide annual statistically significant surveys administered by MTS and MnDOT.

The addition of TDM questions to region-wide annual surveys is a recommended measure because it will provide information about the performance of the overall TDM program and individual efforts being conducted in the region. This method eliminates the potential for double counting between TMOs and regional efforts when they are assessed separately. It also provides a uniform basis to compile the total regional vehicle miles of travel (VMT) saved from the TDM program, which is a component of the VMT goal in Goal 8.

Regional TDM question themes should include:

- Length of participant involvement in regional and/or local TDM programs, such as the annual Commute Challenge, local TMO programs, and participation in ongoing incentive programs like Parking for Poolers.

- Participant's awareness of the presence of local TDM strategies, many of which could be employer or site based. Examples include:

    - Charging for parking
    - Preferential parking for carpools/vanpools
    - Employer based financial incentives or tax credits to use transit or other transportation options
    - On site amenities such as bike lockers, day care, cafeteria, etc.
    - Alternative work schedules

- For those who are new recruits to transportation alternatives, questions should capture the primary mode to work as a result of involvement in the TDM strategy (e.g., did the person change their travel behavior due to involvement with the strategy).

    - For those who did change their behavior as a result of a TDM strategy, also record the frequency with which they use alternative modes currently and the average length of their trip.

- For those who use transportation alternatives currently, questions regarding how TDM services help them maintain their behavior. This is particularly relevant for TDM efforts like the Commuter Connection store where services like Metro Transit pass sales help commuters conveniently maintain their use of transit. It is critical to understand how these travelers are maintaining their travel behavior through the assistance of ongoing TDM services.

    - For these ongoing participants, also capture the frequency with which they use alternative modes currently and the average length of their trip.

TDM Study Strategy 6.2: Each local organization that implements TDM strategies will record the impacts of their programs in terms of new recruits to TDM and retention of current users. These

participation data will be used by MTS to develop the regional vehicle miles of travel reduction estimate for the entire TDM program.

- **New Recruits:** The local new recruits measure is recommended because it focuses on growing the number of participants in TDM strategies and it is easy to implement for local TMOs and other organizations. The measure should track new participants across different events, allowing organizations to evaluate what events were most successful in terms of recruitment. In addition, the measure should also identify what types of businesses (IT, healthcare, etc.) are growing in their participation with TDM, allowing local and regional organizations to recruit new participants from similar businesses.

- **Retention:** The local retention measure focuses on retaining current alternative mode users in their alternative mode due to TDM efforts. This measure provides important information to agencies about length of time that users remain in alternatives modes with the support of TDM and what types of efforts need to be made to retain them. The measure also enables local organizations to track what programs/activities have the highest participation rate and what activities may need to be modified. The measure is easy to institute and can be applied universally to all local organizations.

With both the new recruits and retention measures, the local organizations should provide this information to MTS. MTS will be the primary entity responsible for taking this information and developing the VMT reduction estimate from the results of participation in local TDM efforts. This will serve to streamline the VMT estimation process in several ways. First, parameters from the MTS-maintained regional travel demand model such as trip distance will be compiled consistently between the different activity areas where TDM strategies are implemented. Second, MTS will also standardize the methods used for estimating the impact of the wide variety of TDM strategies. MTS will need to develop these standard methods and equations for evaluation through collaborative efforts with the TDM partners.

MTS will also work with Metro Transit to compile the results from the regional ridesharing database, Bike2Benefits, Parking for Poolers, and other regional programs. Between both the local and regional results, MTS should ensure there is no double-counting between organizations, particularly in ridesharing.

TDM Study Strategy 6.3: Evaluation of local TDM partner programs will be distinct between the CMAQ TDM funding categories described in Strategy 5.1. TMOs will evaluate the impacts of their “baseline” services separately from evaluating the impacts of “competitive grant” funded programs that are intended to pilot new TDM ideas and strategies.

TDM Study Strategy 6.4: MTS and Metro Transit will work together to produce an annual report on effectiveness of TDM and its return on investment. All local TDM partner results will be included in annual reporting.

Currently the annual reporting performed by Metro Transit of the regional TDM program may be missing some local partners and TDM strategies. A comprehensive list of the TDM efforts ongoing in the region include:

- Rideshare services
- Van-GO! services
- Transit services (MetroPass and CollegePass)
- Guaranteed Ride Home
- Commuter Challenge

- Bike2Benefits
- Parking for Poolers
- Commuter Choice Awards and Best Workplaces
- Local TMO outreach efforts in service areas (fairs, events, etc)
- Anoka County construction mitigation efforts
- Downtown Minneapolis TMO Commute Connection store transit pass sales, carpool/vanpool registrations and other commuter assistance
- St. Paul Smart Trips Individualized Marketing programs
- 494 Commuter Services Individualized Marketing programs

These efforts should be tracked for their efforts in both recruiting new travelers to transportation alternatives as well as retaining existing users. The effort of collecting and compiling this information will serve as a good resource of information to report to the public on how CMAQ dollars are being spent. It will also serve as a good check against the regional TDM survey described in TDM Study Strategy 6.1.

The annual report should be circulated to decision-makers and others to increase the distribution of the annual report and overall awareness about the regional TDM program. A web site page available through the Metro Transit and/or MTS web sites should dedicated to these annual reports to facilitate information sharing. In addition, TDM program highlights should be included at events such as the Metropolitan Council's *State of the Region* report.

4.7. New Sources of Funding for TDM

TDM Study Goal 7: New Funding. Develop additional sources of funding for the TDM program.

TDM Study Strategy 7.1: With a future documented evaluation of the TDM program, present these results to decision makers at MnDOT, local government, large employers, and others to build support for more funding of TDM activities.

TDM Study Strategy 7.2: Local TDM partners should work to increase the diversity of their funding and not rely exclusively on federal programs such as CMAQ. As seen from the diversity of TMA funding mechanisms nationwide summarized in Chapter 3, Section 3.2, most of the TMAs nationwide use a mix of local and national funding. Examples of local funding include employer-based TMO membership fees, fees for specific TMO managed services such as shuttles, transit pass sales, and customized employee trip plans, property assessments through special districts, and user-based fees to pay for specialized TDM services such as downtown employee transit pass subsidies paid by parking fees or revenue from the operation of managed lanes.

TDM Study Strategy 7.3: Encourage the development of TDM ordinances that require developer participation, financially and otherwise, in the TDM program. Monitor the effectiveness of these programs and present the results to regional stakeholders.

4.8. Regional and Local VMT Reduction Goals

TDM Study Goal 8: VMT Reduction Goals. The region will track the vehicle miles reduced (VMTR) due to TDM efforts from all CMAQ funded activities. Using a consistent methodology year-to-year, the VMTR will be compiled annually and compared to performance in past years.

TDM Study Strategy 8.1: MTS and Metro Transit will benchmark the progress of the TDM program annually.

Using the results of the performance measurement activities in Goal 6, MTS and Metro Transit will develop a region-wide estimate of the VMTR due to the TDM program. These regional agencies will ensure that all local efforts are reflected in these estimates as well as the results of region-wide surveying.

With the VMTR results compiled, MTS will compare the results of the regional program to the total VMT driven in the region annually for all trips. This total VMT is available from the biannual Texas Transportation Institute's (TTI) Mobility Report. Table 7 in Chapter 3 displays the TTI data and results of 5 regional programs nationwide as well as the Twin Cities region. Table 14 below is replicated from Table 7 in Chapter 3 and shows that the current VMT reduced expressed as a percentage of regional total VMT is 0.38 percent. As MTS and Metro Transit benchmark the TDM program in the future, the goal of the program should be to match or exceed 0.38 percent.

Table 14: Results of the 2008 regional TDM program results compared to regional characteristics.

TDM Program	***TDM Program***		***Regional Characteristics***			
	Annual VMT reduced (VMTR)	Annual budget ($2008)	TTI Total Annual VMT* (1,000,000)	VMTR as a percentage of Total VMT	Total Popula-tion**	VMTR per capita
Twin Cities TDM Program	65,958,658	$4,063,182	17,402.55	0.38%	3,197,225	20.6

* Data obtained from the Texas Transportation Institute *2009 Mobility Study*.

** American Community Survey 2006-2008 data available at www.census.gov.

In addition, this goal could be tracked on a per capita basis. Using the American Community Survey 2006 – 2008 data for the Twin Cities MSA, the total population is 3,197,225 and the annual VMT reduced per capita is 20.6 miles.

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