

Mobility Management White Paper: The Past, Present and Future of Transportation Demand Management in the Capital Region

New Visions 2050



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INTRODUCTION

The Mobility Management Task Force was formed in 2019 during the development of the New Visions 2050 Long Range Transportation Plan in order to provide guidance on Transportation Demand Management recommendations. While the last long range transportation plan, New Visions 2040, included support for transportation demand management (TDM) concepts and implementation strategies, the Mobility Management Task Force considered ways in which the new plan should be updated and strengthened. This White Paper will give an overview of past TDM efforts, summarize existing programs and policies, and recommend actions to strengthen our region's TDM programs and services.

The Mobility Management Task Force is not a policy decision making body but rather has been asked to make recommendations to CDTC's Planning Committee and Policy Board. Task Force members include:

- Susan Barden, City of Saratoga Springs
- Melanie Beam, Capital Carshare
- Jeffrey Buell, Redburn Development
- Kyle Buono, Watervliet Arsenal
- Erin Ceccucci, Office of Mental Health
- Jim Davis, NYSDOT
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- Kate Maynard, CDRPC
- Christine Primiano, City of Schenectady
- Denise Riccardi-Bagramian, Carrow Real Estate Services
- Yasmin Robinson, City of Albany
- Mackenzie Shorter, American Heart Association
- Monique Wahba, Town of Colonie
- Brendan Woodruff, NYSDEC
- Rima Shamieh, CDTC staff
- Jordan Solano-Reed, CDTC staff

What is Mobility Management?

Transportation Demand Management (TDM), or Mobility Management, is a suite of programs and services designed to reduce single occupant vehicle (SOV) travel, fuel consumption, air pollution and parking demand by making travel options like buses, vanpooling, carpooling, walking and biking more attractive and affordable. Mobility Management focuses on how people make their transportation decisions and helps people use existing infrastructure for non-SOV modes of travel. Mobility Management functions on three levels. First, Mobility Management is a program of information, encouragement and incentives provided by local and regional organizations to help people learn about and use all available transportation modes. It also acts as a counterbalance to the many incentives to drive that have been built into our transportation and land use systems. Second, Mobility Management is a suite of transportation services and physical infrastructure components that enable convenient and affordable non-SOV travel. Examples of services include transit, bus rapid transit (BRT), microtransit, vanpooling, bikeshare, and carshare. Infrastructure components include bike lanes, transit centers, bike storage, and sidewalks. Third, Mobility Management is a principle that should guide everything we do in designing our physical infrastructure so that alternatives to driving are naturally encouraged and our transportation system is better balanced among all travel modes. Mobility Management is the root basis

for many important initiatives such as transit-oriented development, complete streets, and walkable communities.¹

This white paper focuses primarily on the programs and services that exist in the Capital Region and that are identified as priorities for future work and expansion. Mobility Management as a guiding principle for infrastructure investment is addressed through the priorities identified in the Transit White Paper, Bicycle and Pedestrian Action Plan, and Complete Streets White Paper. To some extent, Mobility Management as a land use policy-related design principle is addressed here, primarily in the context of prioritizing collaborations between CDTC and local municipal planners to incorporate all travel modes into new and existing land use development.

New Visions Mobility Management Planning and Investment Principle

The New Visions planning and investment principles guide decision-making at CDTC. As statements of principle, they provide a framework for funding decisions, project selection criteria, corridor-level planning and project implementation. The principles state when and how CDTC believes transportation investment is warranted, and when it believes such investment is not warranted.

The Mobility Management Task Force proposes the following planning and investment principle for New Visions:

Regional efforts will prioritize affordable and convenient travel options and programs that encourage behavioral shifts away from single occupancy vehicle travel and help balance the transportation system among driving, biking, walking, taking transit, carpooling, vanpooling and telework.

Incorporating TDM into transportation planning helps optimize infrastructure and land use investments by balancing the system among all travel modes. Travelers in our region should be able to choose from an array of travel options for their work commutes and all other trips. Regional mobility programs and services make it easier for everyone to travel, regardless of the mode they choose. CDTC, all mobility service providers, employers and the region's municipalities should work together to increase access to all travel modes by encouraging the use of non-SOV modes and by expanding public and private infrastructure for non-SOV modes.

Regional decisions about transportation investments shall consider whether TDM programs and policies should be modified to address infrastructure capacity limitations before allocating funds to expand infrastructure.

Goals and Objectives for Mobility Management

CDTC and its regional partners are motivated to support transportation demand management programs and services for many reasons. TDM reduces traffic congestion, air pollution and travel time. It

¹ <https://mobilitylab.org/about-us/what-is-tdm/>, accessed 11/27/19

encourages healthy behaviors like walking and biking and can save employers and their employees money. Employer-based commuter benefits can improve employee retention and recruitment and increase job satisfaction and productivity. Beyond the motivations of individual travelers and employers, CDTC seeks to meet certain goals through its TDM efforts. Specifically:

Goals

- Improve the viability and livability of our built environment
- Increase the sustainability of our region
- Sustain a healthy transit network and other transportation services such as bikeshare and carshare that enable people to travel efficiently without having to use a personal vehicle
- Enhance the quality of life of Capital Region residents
- Achieve equitable access to transportation resources
- Increase non-SOV mode share for trips throughout the region

Objectives

- Increase the efficient use of land, parking facilities and existing transportation infrastructure
- Improve pedestrian, bicycle and transit infrastructure
- Decrease the release of greenhouse gases and air pollutants
- Decrease our region's consumption of non-renewable resources such as undeveloped land and fossil fuels
- Provide viable transportation choices
- Convince regional travelers to switch to a non-SOV mode for some or all of their trips
- Convince large employers and institutions in the region to support non-SOV commutes for their employees, students, customers, patients, etc.
- Convince local municipalities to encourage or require developers to create TDM plans for new properties, and encourage or require large businesses to provide commuter benefits to their employees
- Convince developers and property managers to provide infrastructure such as sidewalks, secure bike storage and transit stops
- Decrease SOV commute modeshare by increasing the modeshares of transit, biking, walking, carpooling, and vanpooling

Trends in Mobility Management

Mode Share in the Regional Commute

The American Community Survey administered by the U.S. Census includes data on the various ways that Capital Region commuters get to work. Comparing the 2009-2013 5-year estimate to the 2014-2018 5-year estimate for the Albany-Schenectady-Troy Metropolitan Statistical Area shows that the proportion of commuters that drive to work alone has remained around 80%, Figure 1-1. However, the estimate of the percent of commuters who take transit to work experienced a statistically significant increase from 3.1% to 3.6% between the 2009-2013

estimated average and the 2014-2018 estimated average. Estimates of other modes did not reveal any statistically significant changes, although the estimated average commute time did increase significantly from 22.4 minutes to 23.2 minutes. The estimated number of workers 16 years or older in the area increased significantly from 426,222 to 440,597, a 3% increase from the 2009-2014 estimate to the 2014-2018 estimate. More work should be done in our region to collect commute data and to gauge commuter interest in trying transit, carpooling, vanpooling and other modes.

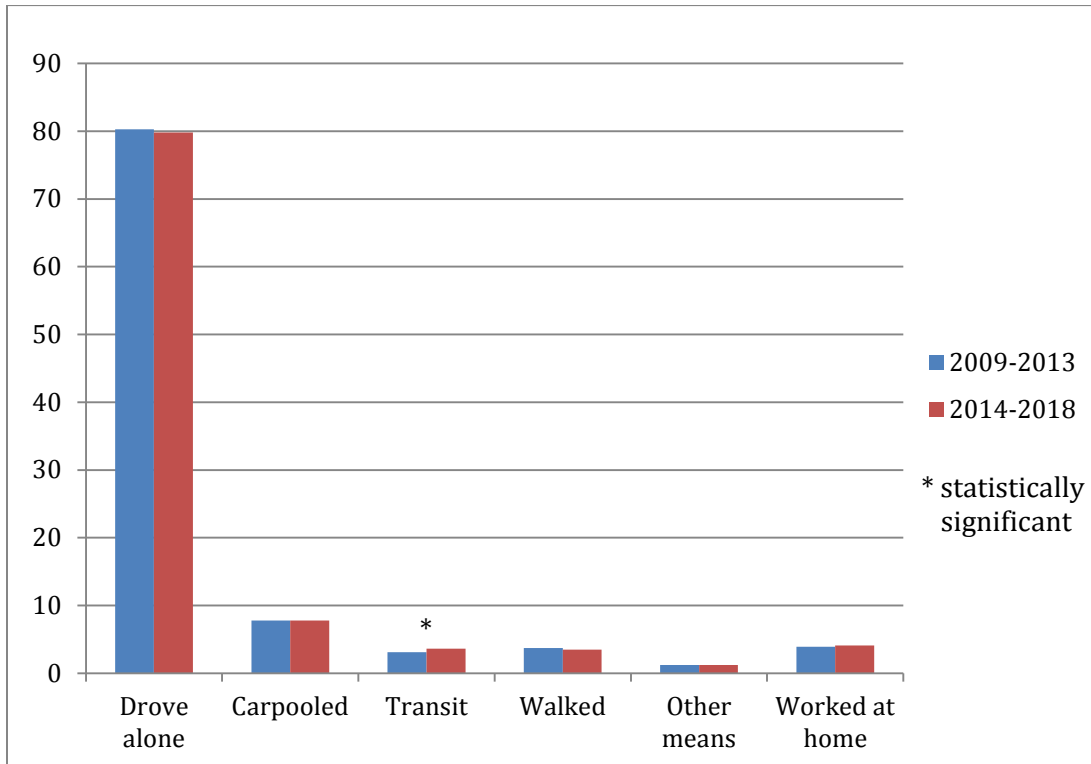


Figure 1-1: Modal Split for Capital Region Commutes. Data source: American Community Survey 2009-2013, 2014-2018

Employer-Based Commuter Benefits Programs

As discussed below, a number of past regional TDM efforts have tried to convince employers to create commuter benefits programs based on Section 132(f) of the IRS Code. Section 132(f), Qualified Transportation Fringe Benefits, lays out three options for employer commuter benefits programs that qualify to reduce the tax liability of both employers and their employees. Employers can offer a tax-free employer-paid subsidy, a pre-tax employee-paid deduction or a combination of both. Because commuter benefits are considered tax-free benefits and not employee wages, employers save money on payroll taxes. Employees who participate in a pre-tax commuter program can save up to 40% in their commuter costs.

Employer TDM programs can go beyond the Qualified Transportation Fringe Benefits offered by the federal government by providing other transportation-related perks to minimize vehicle trips to and from the workplace. Other common offerings include cash payouts to employees

willing to give up their parking space, information about transportation options, employee shuttles to and from work, and secure bike storage. Many more possibilities exist and can be tailored to the needs of a particular workplace or workforce.

Many local municipalities throughout the country require employers over a minimum size to offer a Commuter Benefits Program. Seattle's successful ordinance requires all employers with a minimum of 20 employees to offer a commuter benefits program. That local requirement has resulted in a consistent decline in SOV modeshare in the city even though the number of new jobs had increased significantly. The drive alone rate in Seattle was a staggeringly low 25.4% in 2017, even though the city gained 60,000 jobs between 2010 and 2017 (Figure 1-2, below).



Figure 1-2: This image is from the article, *Seattle Cut Car Commuting Downtown While Adding 60,000 Jobs*, StreetsBlog USA, February 18, 2018.

Impacts of Employer-Based TDM Programs on Reducing Vehicle Trips: An Evidence-Based Approach

Employers have some influence over the travel modes of their employees. Some work has been done in academia and the public sectors to determine the impacts that employer- and institution-based TDM programs can have on reducing vehicle trips. The study entitled, *Traveler Response to Transportation System Changes Handbook, Third Edition: Employer and Institutional TDM Strategies (2010)*² evaluated the relative importance of particular TDM strategies. Strategies were grouped into four categories: Employer and Institutional Support Actions, Provision of Transportation Services, Financial Incentives or Disincentives, and

² National Academies of Sciences, Engineering, and Medicine 2010. *Traveler Response to Transportation System Changes Handbook, Third Edition: Chapter 19, Employer and Institutional TDM Strategies*. Washington, DC: The National Academies Press. <https://doi.org/10.17226/14393>.

Alternative Work Arrangements. Below is a list of the strategies in each category studied and a brief summary of their impacts on vehicle trip reductions (VTR). The basic analysis compared vehicle trip reductions for a group of employers that had a particular TDM strategy with those that did not, controlling for other factors. There were 82 employer- and institution-based TDM programs included in the study.

Employer and Institutional Support Actions

The following are support actions that were included in the study.

- Transportation Coordinators
- Transportation Management Association (TMA)
- On-site Transit Information and Pass Sales
- Rideshare Matching Services
- Guaranteed Ride Home
- Preferential Parking
- Bicycle Storage, Lockers, and Changing Facilities

The study found that employee awareness of individual incentives and assistance programs in support of alternatives ranged greatly from 15% to 77%. The average estimate of site-specific vehicle trip reduction impacts for full-scale employer support programs alone (i.e., independent of additional actions or services offered) was on the order of 4% to 5% VTR.

Provision of Transportation Services

The following are the employer-provided transportation services that were included in the study.

- Shuttle Bus Services
- Contract Transit Service
- Vanpool Formation Assistance/Cost Sharing
- Use of Company Vehicles
- Bicycle Loan Programs

The study found that employer-based TDM programs that provided transportation services were more effective as a group in reducing vehicle trips than those that did not offer transportation services (a 22% versus a 14% program VTR, respectively). The study also found that the positive impact of transportation services is strongly enhanced by monetary incentives for employees that use the preferred alternative modes. This is demonstrated by the finding that programs with services but without monetary incentives averaged almost 9% VTR but programs with both transportation services and monetary incentives achieved almost 27% VTR, a three-fold increase.

Financial Incentives or Disincentives

The following are the financial incentives that were included in the study.

- Transit Subsidies
- In-Kind Incentives
- Parking Supply and Pricing

In the 82-program sample, those employers who featured transit subsidies in their TDM programs has an average VTR of 21%, versus 14% for those who did not. TDM programs that offered High occupancy vehicle (HOV) parking discounts averaged 26% VTR versus 14% for programs that did not. Travel allowances such as parking cash-outs was a relatively new concept at the time the study's sample data was assembled in 1990-1993 and are not well represented in the data set. A 1997 review of California parking cash-out programs found an average decline in vehicle trips of 17%.

The study found that the management of parking resources can have an important role in effectively disincentivizing driving and can have a comparable effect to good transit availability. The employer TDM programs that included restricted parking averaged 25% VTR. If parking management included parking fees, the average VTR increased to 28% and if carpooling and vanpooling discounts were also offered, the average VTR rate increased further to 30%. The study found that the combination of parking fees and employer transportation services produced an especially large synergistic effect, with the average of such combination showing approximately 37% VTR.

Alternative Work Arrangements

The following are the alternative work arrangements that were included in the study.

- Flexible Work Hours
- Staggered Work Hours
- Compressed Work Week
- Telecommuting

The study found that the only work hours strategy with a measurable positive effect on choice of alternative work modes is flexible work hours, but this may be explained by the many employer TDM programs that allow flexible hours only for employees using alternative modes. Employer programs that included flexible work hours averaged a VTR of 20% compared to 13%.

The study did not find any positive impact on vehicle trip reductions from programs that offered telecommuting, but it did note that interest in telecommuting was growing. It is important to acknowledge that the study used data from the 1990's and that significant technological advances such as wireless internet, easy remote electronic file sharing, widespread cellphone use, cloud storage and video conferencing would make telecommuting a more viable and appealing option for workers today.

Conclusion

The study summarized here presents only a small portion of findings in the Employer and Institutional TDM Strategies Chapter of the Traveler Response to Transportation System

Changes Handbook (2010). The handbook contains a wealth of data that can be used to inform the development of employer-based TDM programs as well as regional strategies such as general marketing and outreach, and ways to address the link between land use and transportation in employment centers. CDTC should use the handbook, and other research studies and references, to inform future programs and pilot projects.

The Role of Land Use in Mobility Management

Municipalities have begun to require or incentivize the accommodation of multiple transportation modes into new development projects through zoning ordinances and the site plan review process. In 2017, Buffalo, New York adopted the Buffalo Green Code and Unified Development Ordinance that requires a TDM plan for new real estate development and large property renovations. Locally, a handful of urban-focused real estate developers in the Capital Region have begun incorporating TDM support into their projects. For example, in 2018 the Rosenblum Companies collaborated with service providers to offer discounted Capital Carshare rates and a one-time CDPHP *Cycle!* bikeshare discount to tenants in The News Apartments, with a bikeshare hub and carshare station located at the building's curb. Also, the new 2017 City of Albany hybrid zoning code enabled the Jankow Cos.-CDTA partnership to offer free, unlimited CDTA rides for tenants and employees at the new mixed use development at 563 New Scotland Ave.

Through the site plan approval process local municipalities can also have a leading role in identifying and implementing shared-use park and ride lots. Land uses such as bowling alleys, live theaters, places of worship, dinner restaurants and shopping centers experience significant parking vacancies during commute hours that can be utilized by commuters³.

TRANSPORTATION DEMAND MANAGEMENT PROGRAMS IN THE CAPITAL REGION

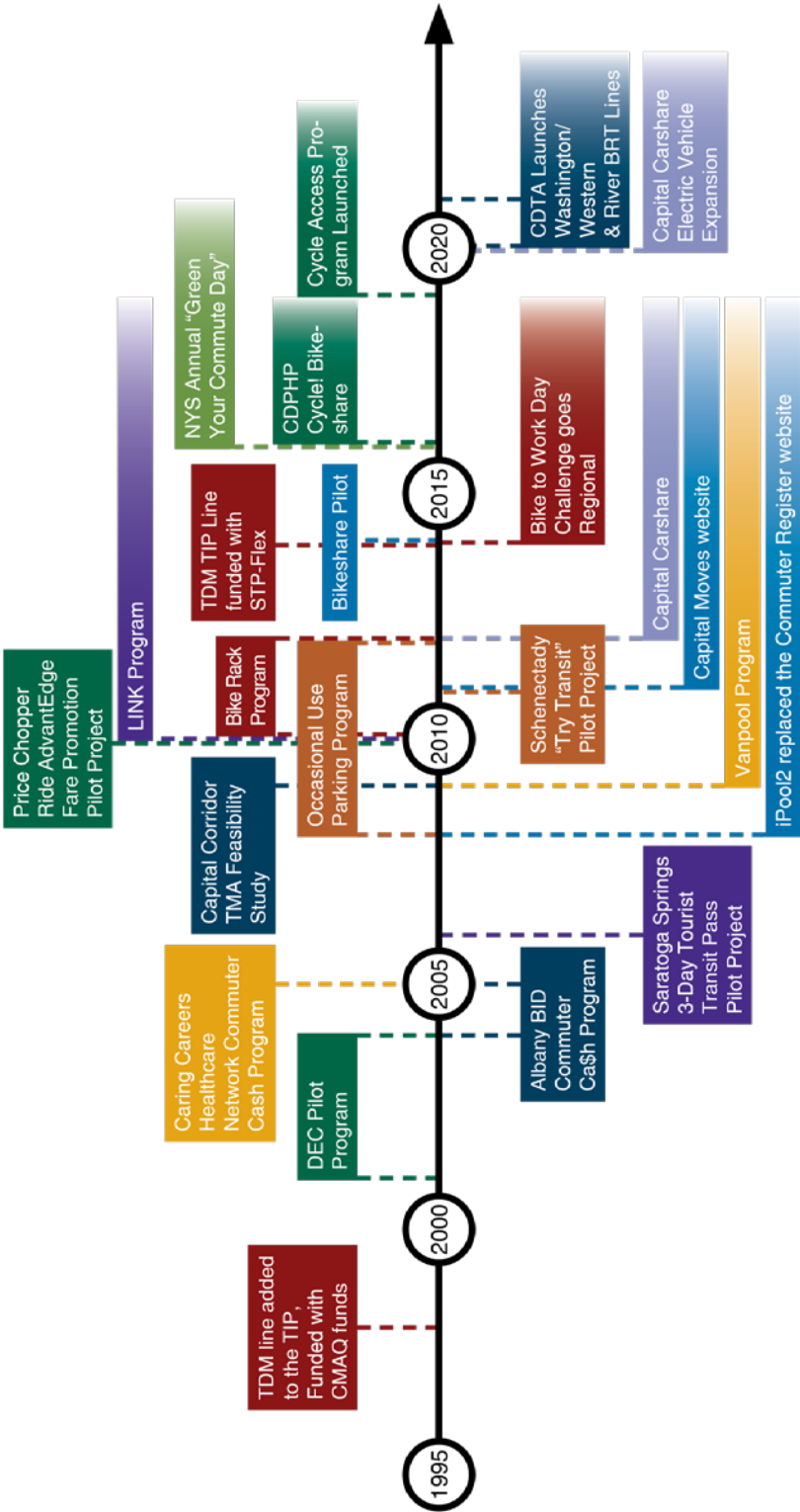
CDTC, CDTA and others have tried many strategies over the years to attract commuters and the general travelling public to non-single occupancy vehicle (non-SOV) modes of travel such as transit, bicycling, walking, carpooling and vanpooling. A number of programs have been launched and studies completed since the TDM line was added to the TIP in 1997. Some programs were very effective in getting people to ditch their cars, while others were less so. All programs contributed to the development of a regional TDM strategy. Below is a summary of the most significant efforts to date. The Past Programs section covers completed pilot programs and on-going programs that are no longer being offered. Summary evaluations of program outcomes are also included – if one was performed when the program was completed – and suggestions for next steps are briefly covered. The Existing Programs section summarizes current efforts to increase non-SOV mode shares and get people to switch their travelling

³ CDTA Park & Ride/Express Bus Study (2011, page 65)

habits from driving alone in a car to biking, walking, taking transit, carpooling, vanpooling or telecommuting.

Figure 2-1 below summarizes TDM milestones and the programmatic timeline since the TDM line was added to the TIP in 1997. For a more in-depth discussion about building off of these programs to develop a new strategy into the future, please see the Recommendations section of this white paper.

Figure 2-1: A Timeline of TDM Programs 1997 – 2020



Past Programs

Over the years, programs have fallen into distinct categories. These categories are: 1. Attracting State Employees to Use Transit, 2. Attracting other downtown Albany employees to use transit, 3. Other area-specific programs, and 4. Region-wide Programs. The programs in this section are presented under these categories.

1. Attracting State Employees to Transit⁴

Transit Pass Subsidies for PEF and CSEA Members

One of the earliest programs to promote transit with subsidies was a program that targeted New York State employees in Albany and ran from 2000 to 2006. The program offered a 25% discount on CDTA monthly transit passes (at the time, this was the Swiper card) to members of the Professional Employees Federation (PEF) and the Civil Service Employees Association (CSEA). The 25% discount was higher than the discount offered through CDTA's regular Corporate Program on the purchase of Swipers. The principal, and lofty, goal of the program was to establish a permanent commuter benefit program because of the high percentage of state employees in the Capital Region workforce. This transit subsidy program was very popular among state employees. However, the goal of establishing a permanent commuter benefit program was not achieved. CDTA continued the deep discounts until the inception of the NYS-Ride program (for more information about NYS-Ride, please see the Existing Programs section below).

The lesson that CDTA and CDTC learned from this early program was that stronger conditions on participation are needed in order to achieve permanent programs with employer participation. This knowledge was successfully applied in later TDM programs.

NYSDEC Transit Incentive Pilot Program

The second program to attract State employees to transit was a pilot program for the NYS Department of Environmental Conservation (DEC) employees. The NYSDEC headquarters were relocated from a suburban location with ample free parking, to downtown Albany with limited parking. The program was launched in the summer of 2001 in conjunction with the move, and continued into 2004. The program offered deep transit subsidies to employees interested in riding transit to work. Both CDTA and commuter carriers transporting employees from outside the four-county Capital Region were included in the program.

The major difference between the NYSDEC program and earlier programs was that it contained conditions that people had to consent to in order to continue receiving transit subsidies. Most important, participants had to relinquish their parking permits. Making a limited number of daily parking tags available in a controlled fashion accommodated the need for occasional parking. Program

⁴ Travel Demand Management (TDM) at CDTA: An overview of TDM initiatives developed and implemented by CDTA and CDTC (1999 – 2008)

outcomes and benefits included a reduction in vehicle miles traveled (VMTs) by 1.58 million miles, which translates into a savings of 60,000 gallons of fuel and 645 tons of pollution over the period of 3 years.

The pilot program was implemented in three phases:

- **Phase One:** June 2001 to October 2002 – This phase had close to 100 participants, half of which were full time bus riders. About 28 Phase One bus riders changed their OGS parking permits as a result of their reduced need for parking. Six bus riders gave up their garage permits, seven gave up their peripheral lot permits, and fifteen gave up their Water St. permits and about ten shared permits. The majority of those commuters who retained parking permits parked in their respective lots only several times a month.
- **Phase Two:** November 2002 to January 2004 - Participants were required to suspend their OGS parking permit in order to receive bus coupons. Occasional use parking was provided up to 6 times a month. 64 people suspended their OGS parking permits in order to participate in Phase Two and 50 were full-time bus riders. One month before the subsidy program was to end, 78% of riders said they would continue taking the bus regularly, 13% said they would at a reduced rate, and less than 1% were undecided or not going to take the bus.
- **Phase Three** began in February 2004 when the DEC program merged with the Downtown Albany Business Improvement District's Commuter Ca\$h bus subsidy program.

The NYSDEC program achieved a higher level of success than the program for PEF and CSEA. However, the employer still did not develop a comprehensive Commuter Benefits program under Section 132(f) of the Internal Revenue Code. Based on this experience, CDTA and CDTC made an important adjustment to the TDM programs – requiring the creation of a Commuter Benefits program under Section 132(f) for any organization interested in participating in the Try Transit program.

2. Attracting Other Downtown Albany Employees to Transit

Albany Business Improvement District Commuter Ca\$h Program

The Commuter Ca\$h program was developed to expand the NYSDEC pilot to other downtown businesses in cooperation with the Downtown Albany Business Improvement District (BID). There were several TDM objectives for the program, such as to reduce vehicle miles traveled (VMT), fuel consumption, parking demand, and the cost of commuting, as well as to improve air quality in downtown Albany. The Commuter Ca\$h program offered discounts on CDTA bus passes as well as commuter carriers transporting employees from outside the four-county Capital Region. The discounts were available to any employee working within the BID boundaries.

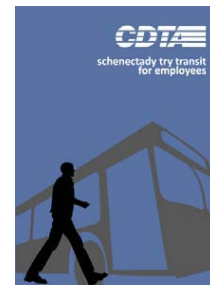
Eligible employees received transit pass discounts for six months. At the six-month mark, the eligibility ended unless the employer contacted the TDM program manager and committed to implementing a permanent commuter benefits program under Section 132(f) and the IRS Code. The employee continued to receive discount coupons for an additional six months, or until the employer program was in place. Eight employers agreed to offer pre-tax Commuter Benefits for their employees through this program.

The program attracted 985 new commuters to transit and involved employees from 76 private sector employers and 60 different New York State offices. Total program participants came to 1,305 employees, including those who were previously in CDTA's now-retired Corporate Swiper Program. An exit survey conducted as participants left the program indicated that 56% of the participants that had driven alone or took transit only occasionally before participating in the Commuter Ca\$h program would continue to take the bus when their eligibility ended. The program was also cost effective. For every program dollar spent participants saved \$2.31 in car ownership and maintenance costs and reduced SOV travel by 6.4 miles.

3. Other Area-Specific Programs

Schenectady Try Transit Pilot Program⁵

In 2011 CDTA instituted a \$10,000 "Try Transit" program in Schenectady. Schenectady was chosen because of its location on BusPlus and because the Downtown Schenectady Improvement Corporation was responsive and willing to provide regular notification of the program to its stakeholders. In addition, CDTA has found that transit promotion in transit-supportive neighborhoods is more successful and requires fewer subsidies. Transit-supportive neighborhoods can be described as those that are walkable and with limited parking availability.



The program was open to any person who worked in the City of Schenectady, though it was marketed only in the downtown area. Employees could receive two monthly 31-Day Rolling Swipers after completing a simple survey on their typical travel patterns. CDTA then encouraged the employees to purchase CDTA transit passes with pre-tax income through their employer. If they signed up to do so, CDTA would provide them with an additional two Swipers.

85 people participated, and passes were distributed from March through November. Due to the budget, the last participant was accepted in September. Some employees were interested, but to CDTA staff's knowledge, none signed up to purchase passes through their employer. Many payroll staff employees are reluctant to set up the system for only a few employees. Participants worked for over 40 entities within the City.

Entry and Exit Surveys

Participants were required to fill out an entrance survey prior to receiving passes. At the end of the program, they received an exit survey in the mail and were asked to complete and return it. Out of 85 participants, 44 returned an exit survey.

A total of 130 people completed the entrance survey. Of these, 45 were ineligible, generally because they didn't work in Schenectady. The figures below include all individuals who returned the entrance survey. People heard about the program from many different sources. (Figure I1) The other category is mostly the local newspaper, which ran an article about the program. Over 50% took a bus at least three times per week, and more than half of hopeful participants already commuted by bus, at least part of the time. Almost one third drove (Figure 2-2). 84% of

⁵ Travel Demand Management (TDM) at CDTA, 2011: An overview of TDM initiatives developed and implemented by CDTA and CDTC

respondents said they intended to take the bus more during the program, and 15% said they were unsure.

After exiting the program, almost three-quarters of participants took a bus at least 3 times each week. The percent of respondents who commuted by bus at least sometimes increased to almost 90%, affecting the drive alone percentage more than any other (Figure 2-3).

The surveys showed that most of the participants were transit riders when they joined the program. CDTC and CDTA should consider creating a new Try Transit program to encourage ridership on new routes such as the River Corridor and Washington/Western BRT lines or underperforming routes.

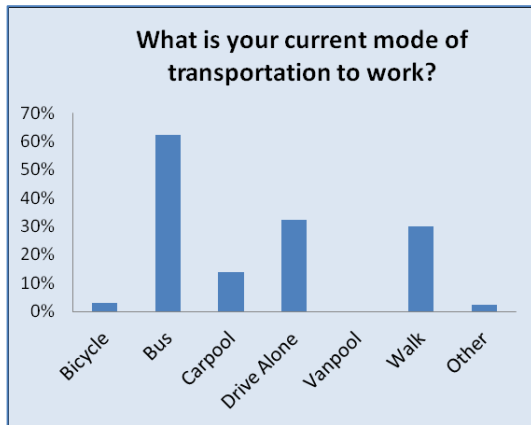


Figure 2-2: Responses from a question on the Schenectady Try Transit Entrance Survey (more than one answer possible)

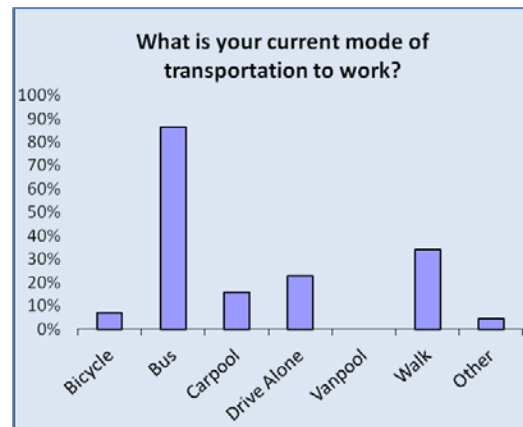


Figure 2-3: Responses from a question on the Schenectady Try Transit Exit Survey (more than one answer possible)

Saratoga Springs: Three-Day Tourist Transit Pass Pilot

A 3-day visitor pass was implemented in Saratoga Springs during the summer of 2006. Free 3-day visitor passes were available at 15 distribution outlets in Saratoga, including Information Booths, hotels and the train station. CDTA hired an ambassador to oversee pass distribution, ride buses, and publicize the program. The ambassador also surveyed pass users, operators, and our partners in the hospitality industry on their opinions.

The program was a success in raising awareness of transit services, getting people to try transit, and building relationships with the tourist and hospitality industry in Saratoga Springs. Ridership on the trolley service was 8% more than in 2005, and use of regular route buses increased by over 20%. CDTA offered the same level of transit service in 2006 as in 2005 on both the trolley and the fixed route service, making this a true test of the value of promotion and marketing. Survey results showed that a 3-day unlimited use pass convinced tourists to leave their car parked and use the bus to get around during their stay. The demographics of the users of the 3-day Visitor pass are a marked contrast to the typical CDTA rider, clearly demonstrating the importance of targeted marketing. Tourists were willing to use CDTA services in Saratoga even though most (70%) had a car available during their stay and don't take transit in their daily life. Based on these results, CDTA introduced a 3-day unlimited pass as part

of the CDTA family of products targeted to the tourism and hospitality industry, with bulk rate and promotional incentives. Three-day passes were accepted by CDTA until 2018. They were discontinued due to the adoption of the Navigator card system.

Albany: Occasional Use Parking Program

A partnership of CDTA, CDTC and the Albany Parking Authority ran from 2008 until 2012 and allowed 5 and 7-day Swiper transit pass holders to park up to 5 times per month in pocket lots located along Central Avenue, at the WAMC public lot at Central and Quail, and at the Quackenbush parking lot. Using “Smart Meters” to track use and prevent fraud, this program allowed CDTA customers the flexibility to occasionally drive to work when they needed their personal vehicle and increased the attractiveness of becoming a regular transit rider. Smart Meters recognized and retained information on Swiper card use such as date and time that allowed for detailed program analyses (Figure 2-4, below).

In 2013 CDTA began issuing rolling fare media exclusively, which were not recognized by the Smart Meters due to coding differences. This effectively ended the program. This program should be explored for reinstatement.

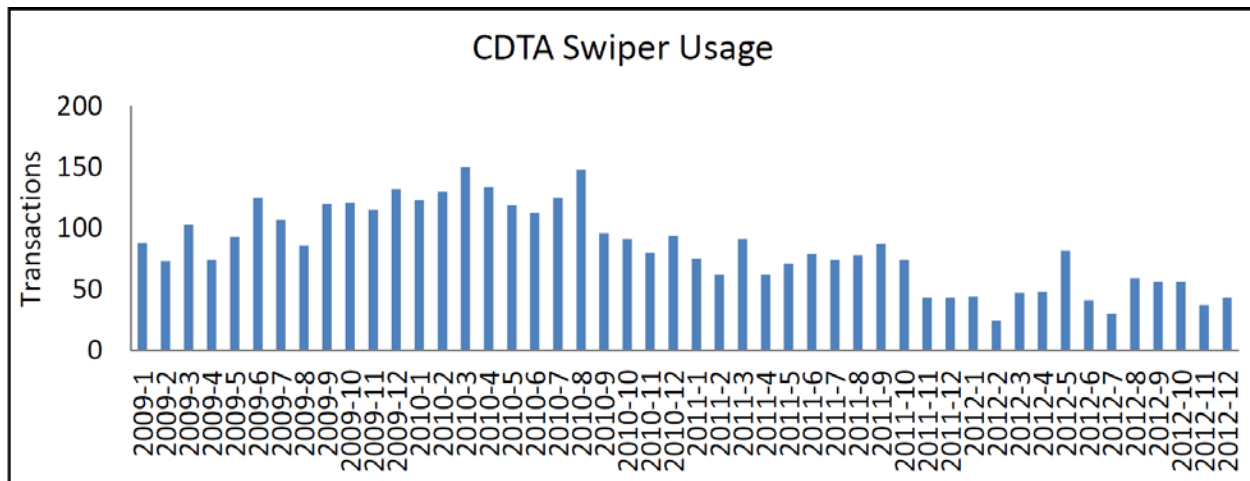


Figure 2-4: The number of transactions per month under the Occasional Use Parking Program

Albany: TMA Feasibility Study

A study to determine the feasibility of establishing a Transportation Management Association (TMA) was conducted in 2007 by CDTC and CDTA. A TMA is a non-profit, member-controlled organization that promotes alternative modes of transportation in a particular area, such as a commercial district, mall, medical center, university campus, or industrial park. A TMA can have numerous roles like managing a shuttle, supporting member employer commuter benefits programs and providing assistance to member employees to improve their commutes.

The Harriman Campus - University at Albany Transportation Linkage Study identified the establishment of a TMA as an important goal for managing the growth and development of the three major campuses: the Harriman Research and Technology Park (formerly the Harriman

State Office Campus), the University at Albany (the Uptown Campus and the College of Nanoscale Science and Engineering, formerly Albany Nanotech) and the Patroon Creek Corporate Park. The TMA Feasibility Study sought to build consensus among the affected parties, including the neighborhoods adjacent to the campuses. It was hoped that the study would be a major focus of regional TDM efforts in 2008 and 2009 and set a precedent for future activities, but ultimately the TMA was not established.

4. Region-Wide Programs

“Try Transit” Programs

Caring Careers Healthcare Network Commuter Cash Program⁶

The Capital District Transportation Committee (CDTC) and the Capital District Transportation Authority (CDTA) in collaboration with the Caring Careers Healthcare Network implemented a Travel Demand Management Program activity, Commuter Cash, for the employees of Teresian House (Washington Avenue Extension in Albany), Baptist Nursing and Rehabilitation Center (Route 50 in Scotia), Our Lady of Mercy (Route 20 in Guilderland), and Daughters of Sarah (Washington Avenue Extension in Albany) that ran from October, 2005 through January, 2006.

The main goal of this program was to encourage commuter benefit programs with the objective of improving recruitment and retention of the workforce in these facilities. Teresian House and Baptist Nursing Rehabilitation Center had no transit benefit program in place for their employees. Daughters of Sarah, an existing CDTA Swiper Corporate customer was using payroll deduction to fund their transit benefit program, however their program was not set up in accordance with Section 132(f) of the IRS Code, the Qualified Transportation Fringe tax benefit, so they were unable to claim pre-tax benefits. Our Lady of Mercy had a transit benefit program that contributed 100% towards the cost of a transit pass for its employees and that was in compliance with Section 132(f).

The Commuter Cash Program for the Caring Career Healthcare Network consisted of two parts. In Part One each employer was required to provide a permanent transit benefit program for their employees in accordance with Section 132(f). Participating Network members were required to submit a letter stating that they were establishing this benefit for their employees and submit the pre-tax employee enrollment form.

In Part Two of the program, employees who were not consumers or regular consumers of public transit were encouraged to “Try Transit” for their daily commuting needs. Employees signed up for the program at their human resources office and were provided with a one-month transit pass. At the end of the one-month trial period, if the employee chose to sign on to their employer’s transit benefit program, they would receive a second one-month pass.

⁶ Caring Careers Commuter Cash Program Results January 2006.doc

Below is a summary of the number of employees that tried transit and signed up for the permanent commuter benefit:

- Teresian House: 43 employees tried transit. 25 employees, or 6% of the total workforce of 430, enrolled in the permanent program.
- Baptist Nursing: 7 employees tried transit. All 7, or 2% of the total workforce of 320, enrolled in the permanent program.
- Our Lady of Mercy: 38 employees tried transit. 33, or 13% of the total workforce of 250, enrolled in the permanent program.
- Daughters of Sarah: 48 employees tried transit. 43 employees, or 13% of the total workforce of 340, enrolled in the permanent program.

It is unknown whether any follow up was performed to monitor the status of these employer-based commuter benefits programs. CDTC staff should follow up with these employers to understand how their commuter benefits programs fared since they were created in 2006.

Bike Rack Program⁷

The Capital Region Bike Rack program was a new addition to the set of Travel Demand Management (TDM) strategies in 2009. This was a cooperative program between CDTC and CDTA to increase the quantity of secure bicycle parking in the region. As a TDM pilot, the program received an annual budget of \$50,000 for three years. The program had the following features:

- 50/50 cost sharing for private sector applicants
- Free racks to public and non-profit applicants
- Recipients were required to use the Association of Pedestrian and Bicycle Professionals' Bicycle Parking Guidelines to ensure that installation sites met "best practice" requirements
- Five-year maintenance and indemnification agreements for received bike racks

Below is a summary table showing the reach of the program over its three years. Although requests for bike racks dropped between 2010 and 2012, interest in the program has continued since its conclusion. CDTA and CDTC should consider reinstating the program on a two- or three-year cycle, or annually but with a smaller budget. Restructuring the program would ensure an efficient allocation of resources while providing consistent assistance to businesses and institutions that are interested in increasing rack access to their bicyclists. This bicycle infrastructure may be especially relevant with the increasing miles of bike lanes and trails in the region, and now that CDPHP Cycle is operating. Bikeshare alone has significantly increased the number of rides in some areas, and now allows users to lock bikes at conventional bike racks in addition to bikeshare hubs. The Bike Rack Program should also consider offering subsidies towards the purchase of bike lockers and indoor bike storage facilities.

⁷ New Visions 2040

Table 2-1: a Summary of the Bike Rack Program, 2010-2012

	2010	2011	2012	Total
Number of organizations	77	30	30	137
Number of bike racks	334	241	145	720
Dollar value of all racks	\$50,000	\$36,531	\$21,000	\$107,531
Number of parking spaces	900	529	333	1,762

Existing Programs

Below is a summary of existing TDM programs offered in the Capital District as of 2020. For in-depth information about transit, please see the Transit White Paper in New Visions 2050.

Capital Moves, iPool2 and 511NY Rideshare

Capital Moves

The Capital Moves website was launched in 2011 as an independently branded clearinghouse of information about the region's transportation options. The site provided information on carpools, carsharing, vanpools, transit, walking and biking, park and ride lots, the Guaranteed Ride Home Program and driving smart to conserve fuel. It included a travel calculator to compare the cost, emissions, and calories expended for each travel mode. It was also used for the Bike to Work Day Challenge and to raise awareness about the Bike Share Pilot project in 2014. In 2012, over 3,500 people visited the site and in 2013 about 4,600 people visited⁸.

The site lost technical support in 2016 and was retired in 2019. Most of the information contained on the site was incorporated into the iPool2 portal on the state's 511NY Rideshare platform and CDTC's website.

iPool2 and 511NY Rideshare

The original iPool2 Ride2gether website grew out of the carpool commuter register, a hardcopy register of carpools in the Capital Region that was maintained by CDTC. iPool2 became the digital, online version of the analog carpool database that focused on carpooling. In 2014 iPool2 was consolidated into the statewide 511NY Rideshare system as a stand alone portal serving the Capital Region with expanded content that covered a wider array of commute options such as transit, vanpools, and bicycling. The iPool2 portal in 511NY Rideshare has become the new regional information clearinghouse for transportation information and enjoys strong support from New York State Department of Transportation. Because of this, moving forward CDTC and 511NY Rideshare will consider retiring the iPool2 name for the regional portal and rebranding the portal with the Capital Moves name instead.

⁸ New Visions 2040

The iPool2 portal on 511NY Rideshare received over 5,400 pageviews in 2019, with an average of about 700 views per month. By the end of 2019 the iPool2 portal totaled 3,224 users.

As of 2019 three employer-based 511NY Rideshare portals have been established in the Capital Region: the NYSDEC/NYSDOH/APA portal serving employees in the New York State Departments of Environmental Conservation and Health, and the Adirondack Park Agency, began in 2018; the NYSERDA portal that was launched in 2019 and serves employees of the New York State Energy Research and Development Authority; and the SUNY Albany portal launch in 2013, serving employees of the State University of New York Albany campus. Table 2-2 below summarizes basic information about the four regional 511NY Rideshare portals.

Table 2-2: Regional and Employer-specific 511NY Rideshare Portals

	Year Established	Number of members as of 2019
SUNY Albany	2013	297
iPool2 portal	2014	3,224
NYSDEC/ NYSDOH/ APA portal	2018	640
NYSERDA	2019	79
TOTAL		4,240

511NY Rideshare operates primarily downstate in New York City and surrounding suburbs, but in 2017 launched a pilot to provide increased support to urban upstate communities for local TDM initiatives and expand general public awareness of carpooling, vanpooling, transit, biking and walking. This pilot project includes marketing and outreach assistance in the Capital Region and other urban areas upstate. As of 2019 CDTC has collaborated with 511NY Rideshare to increase marketing of the Bike to Work Day Challenge and will be developing a marketing plan for 2020 in partnership with CDTA and Capital Carshare to coordinate marketing for all TDM-related activities in the region.

In 2019 CDTC, CDTA, Capital Carshare and 511NY Rideshare began meeting regularly to identify ways to collaborate and boost all TDM-related outreach activities in the region, such as tabling events and marketing campaigns.

CDPHP *Cycle!* Bikeshare

In 2014 CDTC sponsored four demonstration/trial weeks of bikeshare in Albany, Schenectady, Troy and Saratoga Springs. The positive reception it received led to the launch in 2017 of the Bikeshare program, CDPHP *Cycle!*, managed by CDTA. In 2019 CDPHP *Cycle!* provided 41,000 rides to over 12,000 members and has been helped by CDTA's Cycle Access program. Cycle Access works similarly to the Universal Access program in that an organization can sign on to provide bikeshare bikes to its employees or students at a lower cost or no cost. In its third year the bikeshare could be found in Albany, Troy, Schenectady, Saratoga Springs, Cohoes, Waterford and Scotia.

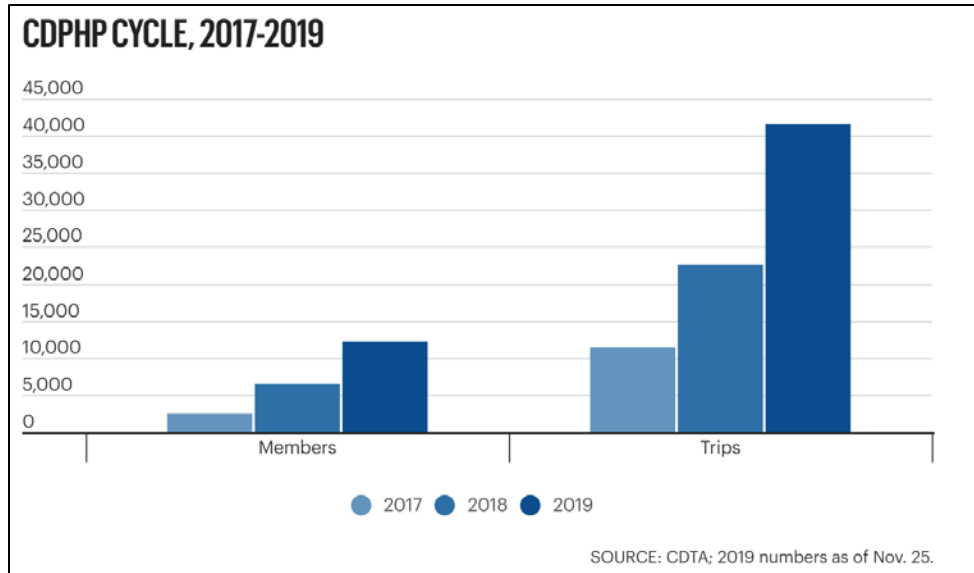


Figure 2-5 was taken from the Albany Business Review article, *Why the number of rides on Albany region's bike share 'skyrocketed' in 2019*, 11/26/19

Park and Ride Lots

CDTC maintains information about designated Park & Ride lots available in the Capital Region. Park & Ride Lots are primarily on private property or NYSDOT-owned property and are most often a CDTA-leased facility, a NYSDOT facility, or a privately owned amenity made available to the public through a local municipal site plan approval process. A map of the lots is posted on the 511NY Rideshare iPool2 portal that includes information about different characteristics and amenities at each lot such as the number of parking spaces for cars and bikes, lighting conditions, known restrictions, and the transit lines that service the lots. Figure 2-6 below is the CDTC map of Park and Ride lots. CDTC is working with 511NY Rideshare to integrate CDTC data into the statewide 511NY Rideshare Park & Ride Lot map, which will replace the CDTC-created map in 2020. Two new Park and Ride Lots are planned as part of the development of the CDTA Bus Rapid Transit Blue Line and will be located at Broadway and Route 378 in Menands and at South Pearl Street and Old South Pearl Street in Albany.

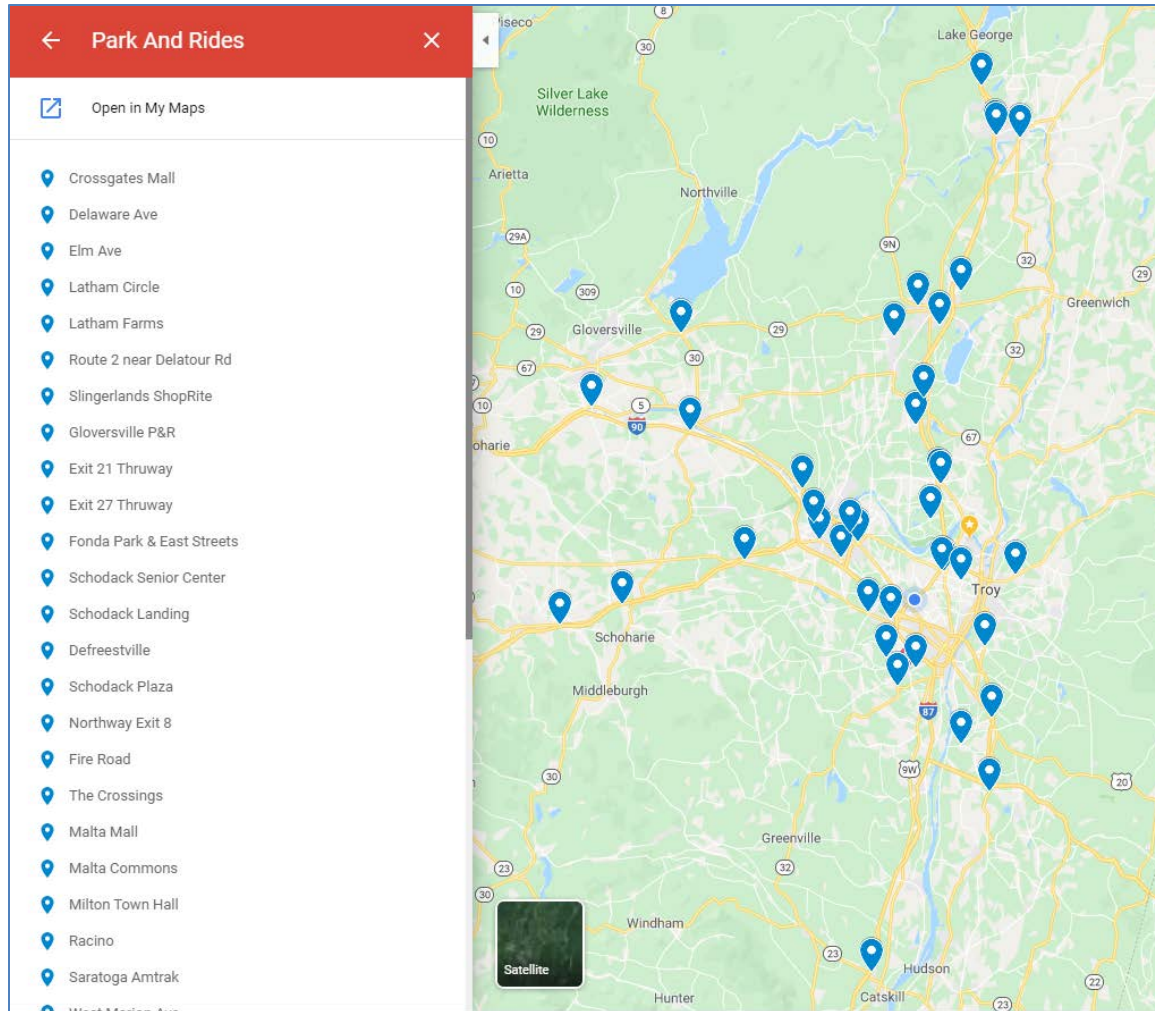


Figure 2-6: Park and Ride Lot Map maintained by CDTC.

CDTA Park & Ride/Express Bus Study (2011)

In 2011 CDTA undertook a CDTC-funded study to create a regional strategy for recommended park and ride lot and express bus improvements and expansion with the goal of providing attractive alternatives to shift SOV commuters to higher occupancy vehicles or transit. The Capital District Transportation Authority Park & Ride/Express Bus Study (2011) collected existing data on commutation patterns, park and ride lot conditions, and traffic congestion; analyzed growth trends; and developed a comprehensive list of recommendations for park and ride lot and express bus service expansions, amenity upgrades, wayfinding and branding. Figure 2-7 shows a diagram summarizing travel modes to and from the region's park and ride lots based on survey results. The study included a survey of park and ride users and an inventory of park and ride lots. The plan also summarized the economic benefits of expanding the park and ride system and laid out an implementation action plan.

Key Findings

A survey included in the study found approximately 1,261 daily users of the 38 park and ride lots serving the Capital Region. Twenty-three of the lots were served by transit service to Albany, and 23 were shared use lots with another primary use such as a shopping mall or church. Ninety-five percent of the trips that began at a park and ride lot were work related. Eighty-five percent of the riders were headed toward Albany. The park and ride lot inventory showed that regional park and ride lots were underutilized with an average occupancy rate of 33%. Only nine lots were heavily used with occupancy rates between 50% and 80%.

Existing and projected regional growth patterns suggest that park and ride lots and express bus routes serving Saratoga Springs will become increasingly important. It is likely that capacity at the existing lots will need to be expanded over time, additional lots brought into service, and additional trips will need to be added to the NX bus route.

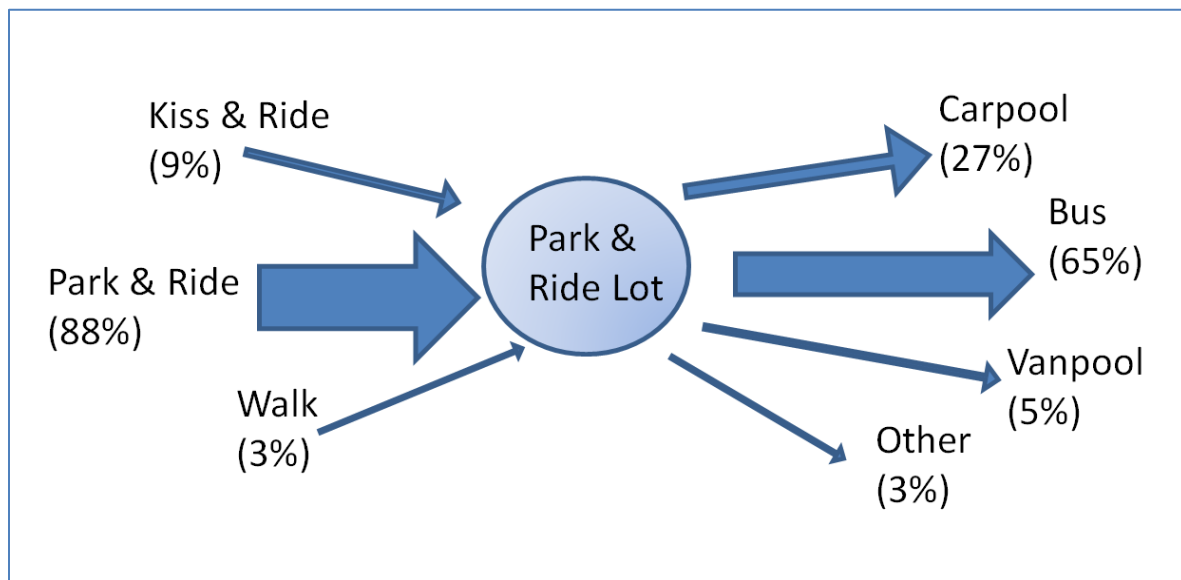


Figure 2-7: Survey response rates for travel modes to and from the region's park and ride lots. Data source: CDTA Park and Ride/Express Bus Study (2011)

Key Recommendations

To maximize public investment and increase transit linkage opportunities, dedicated lots should be located no more than .75 miles from a highway interchange and should have at least 50 vehicle parking spaces. The study identified specific state-owned properties with characteristics suitable for dedicated park and ride lots located at Northway exits 11, 13, 16, and 17. Overall sixteen interchanges were identified as being outside the 10 mile radius of Albany and lacking a park and ride lot within one mile. The study recommended targeting new lots just upstream of the worst recurring congestion.

Dedicated lots are seen as more reliable in the long term because they are not subject to the desires and constraints of private property owners and they allow more flexible use. However, shared use lots are more cost effective and a quick way to expand the region's park and ride

capacity. The study identified nine suitable locations along the Northway to create new shared use lots.

Guaranteed Ride Home Program

The Guaranteed Ride Home (GRH) Program is one of the oldest, continuously operated TDM programs in the Capital District. The program provides an emergency taxi ride home from work for transit riders, carpoolers and others who commute by a non-SOV mode at least twice per week. The program provides some peace of mind for commuters who are concerned about the “what if” of a sick child or spouse, a last minute late night at the office or other situation that would otherwise leave them stranded without transportation home. The CDTA call center fields calls from commuters needing the service and arranges the taxi ride for them. During hours that the call center is closed, GRH requests get routed directly to the taxi service provider. Non-CDTA bus riders must be enrolled in the GRH program through the iPool2 portal on 511NY Rideshare or by calling or emailing CDTC directly.

The GRH program has experienced a decline in usage in the past six years. Between 2015 and 2016 the program experienced a 63% decline, from 437 rides to 162 rides (Figure 2-8). This is attributed to increased oversight of the program that reduced fraudulent requests from getting through. The program experienced a second decline between 2017 and 2018 of 76%, from 139 to 33 rides. This decline may have been caused by a combination of the switch to the new Navigator fare medium and the arrival of ridesharing services to the area such as Uber and Lyft. Twenty-eight GRH rides were provided in 2019. The switch away from the Swiper card, which included information about the GRH Program directly on it, to the Navigator card, which provides no information about the GRH Program, may also have had an impact on the program’s use rate. CDTC and CDTA should investigate the reasons for the decline in usage since 2017 and consider ways to increase usage, as appropriate.

CDTA is considering a partnership with Uber beginning in 2020 to provide GRH rides in addition to using a local taxi service. Other GRH programs throughout the country, including in other parts of New York State, issue promo codes for Uber or Lyft for commuters in need of an emergency ride. CDTA and CDTC should consider further integrating the GRH Program with 511 by exploring the possibility of having the 511 NY Rideshare call center field GRH requests for our region.

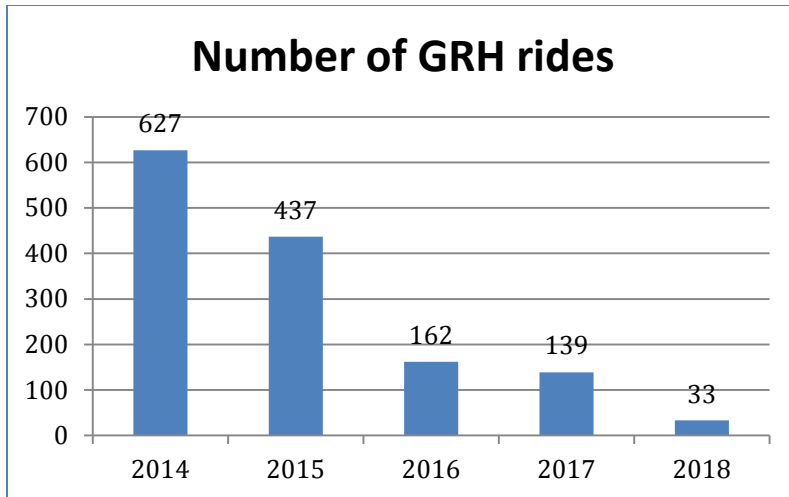


Figure 2-8: Number of GRH rides, 2014-2018. Data source: CDTA

Universal Access and Cycle Access Programs

The partnerships developed through Universal Access agreements with numerous universities, private businesses and others in the Capital Region has been an enormous success. Universal Access partner ridership accounted for 4.3 million boardings, or almost 30% of all rides in FY 2019. This program allows partner constituents free or reduced-cost transit access using their institutions' ID card. CDTA is continuing to expand the Universal Access program. See the Transit White Paper for more information.

Similar to the Universal Access program, Cycle Access provides customized, discounted memberships to area employers and schools to provide access to CDPHP Cycle! bikes. The Cycle Access program launched in CDPHP Cycle's third year and resulted in an explosive increase in bikeshare rides, as indicated in Figure 2-5, above.

Travel Training

CDTA employs two full-time Travel Trainers. The Trainers help people become successful transit users by providing information and support through one-on-one instructor assistance. Trainers help CDTA customers plan their trip, read and understand route maps and schedules, get on and off the bus properly, pay the fare, and much more. Prospective riders can make an appointment with one of the Travel Trainers to receive training on destination-specific training, which would focus on travelling to a specific destination and back, or general travel training. Travel Trainers accompany riders until they feel confident and safe to ride on their own, which generally takes three to four trips.

Vanpools

A vanpool is a group of 5 to 15 people who regularly commute together in a van leased on a month-to-month basis. Each group has one primary driver and at least one back-up driver. The primary driver is responsible for making sure the lease is paid every month, and for making sure

the van receives routine maintenance. The driver may also use the vehicle for a small number of personal trips.

Vanpooling is considered public transportation. The federal government subsidizes vanpool expenses for its employees, as do some private employers throughout the country. CDTA offers an additional vanpool subsidy through the TIP that brings the per person cost of vanpooling down significantly. Particularly for federal workers and those with access to employer subsidies, vanpooling is a very cost effective way to commute.

The number of vanpools in the Capital Region has skyrocketed since 2018, due to an effective promotion strategy that was launched at the Watervliet Arsenal. The Arsenal is an ideal candidate for a successful vanpool program in that its employees are eligible for the federal subsidy and the subsidy offered by CDTA, it maintains a large employee base and a significant number of its employees have a long distance commute. Even so, the level of success it currently experiences is largely due to the effective education of its employees about the program by its vanpool coordinator, who is an Arsenal employee that volunteers his time to promote the program. Figure 2-9 below shows the change in the number of vanpools in the region over time. The success at the Watervliet Arsenal has renewed interest in establishing vanpool programs at other major employer centers throughout the region, especially at other federal facilities.

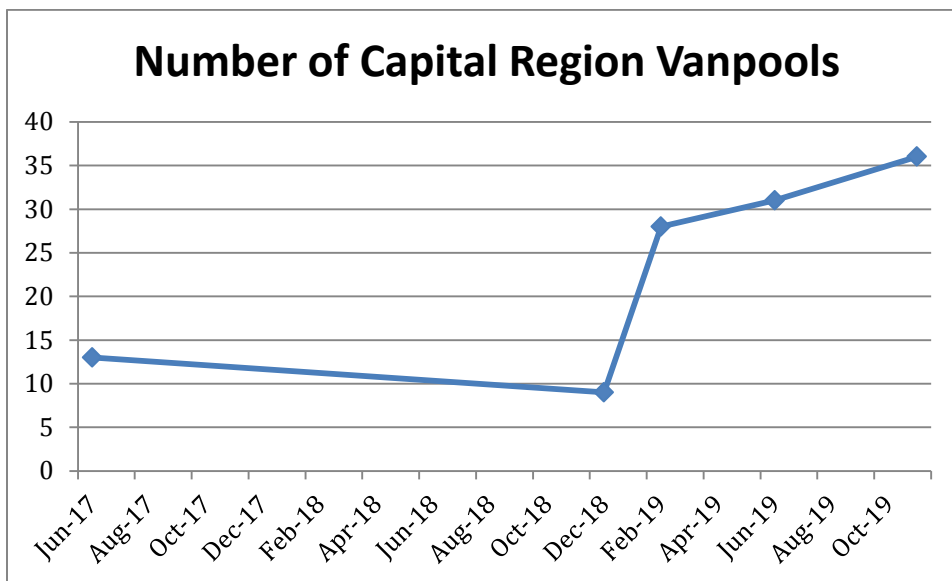


Figure 2-9: Number of Capital Region vanpools, June 2017 to October 2019. Data source: Commute with Enterprise

Bike to Work Day Challenge⁹

For several years the community group Bikeatoga organized a Bike to Work Day Workplace Challenge for Saratoga County. In 2014 CDTC expanded the annual event to the entire four

⁹ New Visions 2040, ACS 2017

county region. Since then the event has been held each year and has grown to include almost 700 riders on over 100 teams (see Figure 2-10, below). This program aims to raise awareness of bicycling as a commute mode and encourage new cyclists to try pedaling to work. It also serves to remind drivers to look out for bicyclists and share the road. While the number of participants has steadily increased over time, from 340 in 2014 to 678 in 2019, the impact of the program, as it is currently structured, is still quite small compared to the number of commuters in our region. According to the 2017 ACS 5-year estimate, there are approximately 422,707 workers 16 years or older in our 4-county area. The single occupancy vehicle (SOV) mode share is approximately 81% of those commuters, or about 340,600 SOV commuters. The highest number of participants in the Bike to Work Day Challenge is 678, which is approximately 0.2% of regional SOV commuters. CDTC should conduct additional analyses on this program to determine its impact and whether it is effectively meeting its goals. For example, how many participants never or rarely bicycled to work in the past? How many new participants versus repeat participants does the event attract every year? The cost of running the program should be considered relative to its impact to determine whether changes should be made or whether the program should be expanded further.

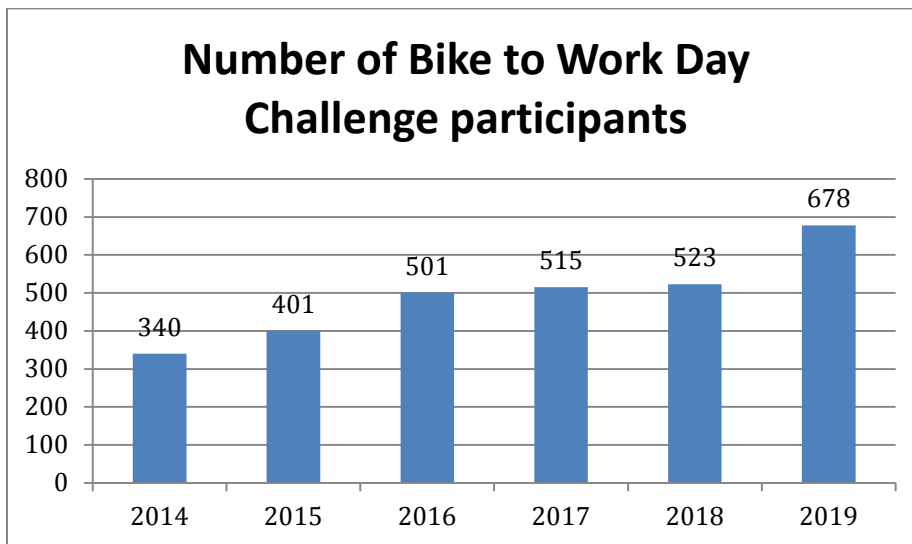


Figure 2-10: Number of Bike to Work Day Challenge Participants. Data source: CDTC

Green Your Commute Day

Green Your Commute Day is an event offered by the New York State Department of Environmental Conservation (NYSDEC). It was created in 2016 to encourage state employees and the general public to try commuting to work by means other than driving alone in a fossil fuel-powered vehicle. While the event takes place on a single day, the goal is to get workers to shift their commuting habits to more sustainable modes over the long term by showing them how easy and convenient a greener commute can be.

In the month leading up to the event, which is held on National Bike to Work Day, participants pledge to green their commute for one day using modes such as walking, biking, taking transit, carpooling, driving an EV, or any other means besides driving alone in a fossil fuel- powered vehicle. As part of the event a friendly competition is held between state agencies and SUNY schools to see whose employees can reduce carbon emissions the most. Over the past four years participation in Green Your Commute Day has increased over 250% from just over 700 state employees participating in 2016 to over 2,700 participating in 2019. Carbon emission reductions also significantly increased, from 8.5 tons to 41.2 tons. While the event targets all state employees and the general public throughout New York, most participants live and work within the Capital Region.

NYDEC produces a communications toolkit for the program that includes a poster, social media graphics, and sample emails/blog posts to allow agencies, local governments, and other sustainable transportation partners to promote participation to the general public. While the public's participation is not logged or tracked, they are encouraged to post to social media using the year's hashtag, such as #GYCD19. In 2018 and 2019 there was a significant uptick in the number of social media posts using the hashtag.

To build on the momentum of Green Your Commute Day in spring 2019, NYSDEC, NYSEDA, and NYSDOT, with the support of 511NY Rideshare, launched the first ever summer long Green Your Commute Challenge. This event challenged employees at participating state agencies, SUNY/CUNY schools, and municipalities to continue their green commutes all summer long and track their trips via the 511NY Rideshare Trip Tracker mobile app or through the 511NY Rideshare website. Twenty-six employers participated and were grouped into different categories to compete to see whose employees could reduce carbon emissions the most. This program was specifically designed to create green commuting habits in employees by making green commuting not just a one day a year activity, but something that can be done regularly. Due to funding and technological constraints it is not likely that this program will continue.

“Try Transit” Programs

Homeownership Transit Incentive Program

This program is administered by CDTA. In addition to increasing ridership, transit subsidies create a number of other positive benefits. One example is the Homeownership Transit Incentive Program. By providing transit incentives, this program not only attracts new riders to CDTA, it also makes urban homeownership more attractive.

New homeowners in our region who meet eligibility requirements and reside within 0.5 miles of a transit stop can access a year of unlimited CDTA use for up to two people. Since the program's inception in 2009, 195 households have participated in the program.

Transit for Refugees and Immigrants (TRI)

This program is also administered by CDTA. Transit for Refugees and Immigrant (TRI) also falls under the Try Transit umbrella and has proved popular among refugees and immigrants new to our region.

Capital Carshare

Capital Carshare maintains a fleet of vehicles and allows community members to use a car without the costs and hassles of owning one. In August of 2014 Capital Carshare (CCS) was launched as a nonprofit organization with a small budget and just two Albany-based vehicles to provide on-demand access to vehicles for hourly or daily use. As of November 2019, CCS has onboarded 730 members. Trips average fifty miles in length and nine hours in duration, with an average charge of \$42.

In the fall of 2017 Capital CarShare expanded service to Troy with two on-street parking spaces. In August, 2018 the organization added its first electric vehicle (EV), a 2018 BMW I3, also in Troy. This EV expansion was a combined effort with the developers of The News Apartments, The City of Troy and BMW North America. The residents of The New Apartments were offered a discounted membership, but the vehicle is available to all CCS members and has been a great tool to introduce the public to electric vehicles. Capital CarShare continues to see high levels of interest from developers seeking to decrease costly parking requirements on their projects, but to date only one developer has committed to incorporating carshare into a project.

In 2019 CCS was awarded a \$500,000 NYSEDA grant to add ten electric vehicles to its fleet. The new EV fleet will be used during business hours by City of Albany staff but will be available evenings and weekends for general member usage. The project seeks to create a replicable model for other New York State municipalities to decrease the cost of fleet replacement and increase EV adoption in low- and moderate-income communities. As part of the project free personal carsharing memberships will be given to all city employees and residents earning at or below the poverty level.

An ongoing threat to the viability of Capital Carshare and other small-scale, non-profit carshares throughout New York State is the high cost of insurance. Premiums for insurance in the State Risk Pool soared to \$850 per vehicle per month from \$150 per vehicle per month. This large monthly expense has put a significant strain on the organization's budget and limits the growth of carsharing in the Capital Region.

Microtransit

Microtransit is a combination of ridesharing and ride on demand. In January, 2020 CDTA launched Flex, a microtransit pilot project that encompasses portions of the Towns of Colonie and Guilderland. The service area includes Crossgates Mall, Colonie Center, Crossgates Commons, the Village of Colonie and a portion of Wolf Road. All Flex rides must originate and terminate within the service area.

Flex uses two eight-passenger vans that can each accommodate two wheelchair users. Users can call for a ride or order one online. It is a curb-to-curb service, as opposed to the door-to-

door service that STAR offers. Within the service area Flex will also be used by the Guaranteed Ride Home Program instead of using taxis.

NYS-Ride Program¹⁰

NYS-Ride is a negotiated benefit program sponsored by the New York State Governor's Office of Employee Relations (GOER) and administered by WageWorks, Inc. The program provides New York State employees with the opportunity to pay for certain work-related transportation expenses on a pre-tax basis. Participants pay for these expenses through pre-tax payroll deductions to save up to 40% on transportation costs each month.

WageWorks purchases public transportation fare media (such as bus passes) from transit authorities and will mail selected fare media directly to employee's home address. State employees can also purchase a voucher to use a vanpool or obtain a WageWorks Commuter Card to pay for their fare media directly. The pre-tax limit for 2019 was \$270 per month.

CDTC should work with 511NY Rideshare, the New York State Department of Conservation and the Governor's Office of Employee Relations to ensure that all eligible State employees are aware of 511NY Rideshare, the NYS-Ride Program and how they can work together to improve employee commutes and save them money.



PERFORMANCE MEASURES

Data driven decision making is an important part of transportation planning. For programs and services related to mobility management, it is important to know whether committed resources really do have a positive outcome or if those resources should be spent elsewhere. The primary objective of mobility management, reducing the number of single-occupancy vehicles, is given below along with two measures.

Objective: Reduce the number of people in the region who commute alone by car.

- **Measure:** Percent commute mode share of transit, carpooling, vanpooling, biking, walking and teleworking.
- **Measure:** Number of registrants in the iPool2 511NY Rideshare portal

¹⁰ <https://participant.wageworks.com/Cobrand/nys/home/index.aspx>

Mobility Management Performance Measures – Single Occupancy Vehicle Commutes			
Performance Measures	Baseline Value	Performance Goal 2050	Current Trend
Percent share of non-SOV modes	20%	Increase Baseline Value	
Registrants in iPool2	3,224 users	Increase Baseline Value	

Description of Progress

The iPool2 portal is actively promoted by 511NY Rideshare and CDTC. It is primarily used as a carpool matching system but plans are being made to expand its content to include information on all non-SOV commuting modes. CDTC, CDTA, 511NY Rideshare and Capital Carshare are developing a collaborative marketing plan to increase the visibility of all programs including iPool2. Many different actions, by multiple regional entities, impact the percent share of non-SOV commuting modes. Current efforts are focused on expanding mode choice by expanding the bikeshare, carshare and vanpooling programs, and adding new Bus Rapid Transit routes and the FLEX microtransit pilot project. Future programming will refocus efforts to work with employers to pilot new Commuter Benefits programs and engage with municipalities to incorporate TDM considerations into their land use processes.

MAKING TRANSPORTATION DEMAND MANAGEMENT MORE EQUITABLE

Transportation Demand Management, as a transportation planning goal, grew out of congestion management and the need to make existing automobile infrastructure work more efficiently. It has primarily focused on changing the behavior of single occupancy vehicle (SOV) commuters in order to reduce congestion during peak travel times (i.e., “rush hour,” when people most often commute to and from work). Other positive impacts such as reducing air pollution and greenhouse gas emissions and reducing dependence on fossil fuels are also important priorities for significant investment in TDM but are often considered secondary to the need to alleviate congestion. This emphasis on SOV commuters necessarily results in programming efforts that focus on those who are able-bodied and wealthy enough to afford regular access to a personal vehicle and on employers who employ people who have regular access to personal vehicles. Due to its roots as a mechanism for reducing car traffic, few TDM programs are structured to include assistance for travelers who cannot afford a personal vehicle or are unable to drive. By allocating resources to encourage behavior changes away from single occupancy travel, TDM, defined as it was originally conceived, is fundamentally inequitable.

There are a number of ways to address this inequity. As it is practiced today, TDM can and should incorporate programs, services and policies that enable convenient and affordable transportation choices beyond the personal automobile, for everyone. Investing in transit, biking, walking, carpooling, vanpooling and telework resources in the region would help ease automobile congestion by reducing the number of single occupancy vehicles on the roads, but it would also help people with low incomes or disabilities and those who are too young to drive.

CDTC and its regional partners should consider ways to target outreach to these populations and their employers to ensure that they can take advantage of these investments. Recommendations are proposed in the section below.

NEW VISIONS 2050 RECOMMENDATIONS FOR FUTURE WORK

In the past 10 years our region has successfully focused on creating strong mobility services including Bus Rapid Transit, bikesharing, carsharing and most recently, microtransit. Since 1997 our region also experienced a period of experimentation with TDM pilot programs to determine what works and does not work in our region. The following recommendations focus on short-term actions (1-5 years) that address some of the gaps in the region’s TDM work to date. These actions emphasize building collaborative relationships, program analysis, data collection, and marketing in order to establish a baseline of data off of which to expand a future regional TDM program.

Recommendations for Managing Existing TDM Programs and Services

Many different TDM programs, services, and pilot projects currently exist and are managed by multiple entities throughout the region. A cohesive regional strategy is difficult to execute effectively without regular program evaluations, excellent communication among the involved parties and a way to organize all the data. A framework is needed to consistently manage the regional TDM strategy. It is recommended that:

- CDTC establish a data management and project management strategy that standardizes the process for executing TDM pilot projects, such as establishing clear goals and objectives, requiring entry and exit surveys, assessing project effectiveness, documenting project outcomes and maintaining data records. This should include a regular schedule to evaluate all TDM programs in the region, survey employer and employee participants again several years after programs are established to monitor their growth or decline over time.
- Establish agreements with program and service partners (CDTA, 511NY Rideshare, Capital Carshare) to exchange data and administer surveys at regular intervals in order to monitor the health and progress of TDM programs.
- Identify TDM Performance Measures to use in evaluating program and service impacts. Program and service impact evaluations should be performed every 2-3 years and should include surveys of users¹¹. Perform an analysis to determine the degree of equitable access to and benefit from regional TDM services and programs.

Successful TDM programs include a prominent marketing component that requires that we gain and maintain a deep understanding of our regional commuters, travelers, employers, developers and land use decision makers. One effective and efficient way of gaining this understanding is data collection. It is recommended that:

- CDTC conduct a commuter survey to determine existing commuting habits and potential for mode shifts, targeting large employment centers in the region. This survey should be repeated every 3-5 years in order to identify trends and TDM program impacts.

Evaluate the regional Park & Ride Lot resources. It is recommended that:

- Update the iPool2 database of regional Park & Ride lots with available amenities and modal connections.
- Determine which, if any, park and ride lot recommendations in the 2011 Park and Ride/Express Bus Study to implement, such as establishing new lots or expanding existing lots.
- Re-survey park and ride lots to update occupancy estimates.

¹¹ In Commuter-Benefits-Toolkit-2018-1.pdf doc from www.goDCgo.org. Use performance measures to determine all TDM program impacts on congestion, air emissions, VMT, etc.

Recommendations for Expanding TDM Programs and Services

Improve outreach and program collaboration between all Mobility Management-related entities in the region. By coordinating marketing and programming efforts among CDTA, CDTC, Capital Carshare, 511NYRideshare, and long-distance commuter carriers, all partners can maximize efficiency and spread messaging as far as possible. It is recommended that:

- Program partners work together to identify region-wide goals and establish priorities for action.
- An engagement and outreach strategy is developed that uses a suite of tools, incentives and disincentives such as:
 - TDM toolkits for employers, real estate developers, property managers and parking managers as well as toolkits for specific neighborhoods. Toolkits should be developed in collaboration with community partners such as municipal planners, neighborhood groups, real estate developers and others as appropriate.
 - Improve employer outreach by providing customized commuting guidance to employees
 - Employer-based programs that create disincentives to use parking and incentives to commute via transit, biking, walking, vanpools or carpools
- An engagement strategy is developed to assist municipalities in applying Mobility Management principles to land use policies and in land use decision-making processes
- Conduct a parking inventory of the region's densest city and village areas. Identify parking and land use policy changes to reduce parking stock, as necessary.
- CDTC and partners consider convening a TDM and Parking Symposium that will:
 - Present local government and business leaders information about the value of TDM programs, supporting non-SOV trips and reducing parking.
 - Make the connection between successful TDM programs, high densities, and reduced parking.
 - Present evidence-based research on the mental, physical, financial, and environmental benefits of non-SOV trips, and employer benefits in terms of improved employee recruitment and retention.
 - Start a discussion about managing and capitalizing on curb space.
- Evaluate CDTC and CDRPC support programs such as the Land Use and Transportation Linkage Program and the Technical Assistance Program to ensure that TDM-related support activities are encouraged and eligible for assistance.
- Consider launching a TDM technical assistance program for municipalities and large companies.
- CDTC, in collaboration with CDTA, Capital Carshare and 511NY Rideshare should develop a comprehensive marketing strategy. This strategy should be coordinated and reevaluated on a regular basis. It is recommended that:
 - TDM marketing and support to regional businesses is expanded by capitalizing on the business contacts established through the Bike to Work Day Challenge and Green Your Commute workplace teams.
 - An annual marketing plan is developed for all TDM-related activities in the region. This should be a collaborative effort between CDTC, CDTA, Capital Carshare and 511NY Rideshare.
 - A marketing strategy is developed that targets different segments of the population with customized messaging.

In addition to the initial priority of reducing congestion on roadways, regional TDM efforts should prioritize improving transportation resources for those who do not have reliable access to a personal vehicle. To improve the equitable distribution of resources regarding TDM it is recommended that:

- CDTC should engage with residents of low-income neighborhoods to determine what resources and information are needed to increase their access to and use of transit, biking, walking, carpooling, vanpooling and telework. CDTC should ensure that residents in low income neighborhoods receive targeted outreach so that they are aware of all available transportation options in their area. A good model for this is the [Smart Trips program](#) in Austin, Texas.
- CDTC should engage with employers of low-income workers to help launch commuter benefits programs that save workers money and improve employee recruitment, retention and job satisfaction.
- CDTC should conduct research to determine how to best market TDM programs and services to low-income, disabled and minority workers. TDM program outreach such as 511NY Rideshare employer outreach do not currently target workers without transportation access to jobs, only workers that already have a reliable way to get to work. Other outreach modes, such as the iPool2 website and all of CDTC's social media marketing, is a blanket marketing approach that seeks to engage the general public.
- CDTC should conduct a complete equity evaluation of TDM programs, services and policies to look for negative impacts and missed opportunities that can be corrected to improve access to non-SOV modes by low-income, disabled and minority workers.

Recommendations for Identifying New Initiatives

- Conduct a Region-wide TMA feasibility analysis to identify the most viable areas to launch TMAs. Casting a wider net to the entire region makes it more likely that at least one TMA is created somewhere in the region. It is recommended that:
 - CDTC conduct a study that looks at factors that enabled the launch of the Go Buffalo Niagara TMA and the 2019 TMA launch in downtown Ithaca, NY.
 - CDTC a region-wide suitability analysis to identify where TMAs may be most viable.
- Develop a model ordinance for local municipalities to consider that demonstrates how TDM considerations can be incorporated into the site plan review process.
- Launch a Commuter Benefits pilot program similar to the "Try Transit" pilots completed previously, incorporating the suite of all available modes in addition to transit and heeding lessons learned from past "Try Transit" pilot programs.
- Consider establishing a standing TDM committee to provide advice to the Planning Committee and Policy Board.