United States
Environmental Protection
Agency

Air and Radiation

EPA420-K-99-001
August 1999

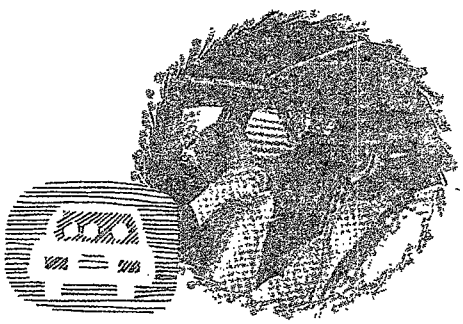
EPA

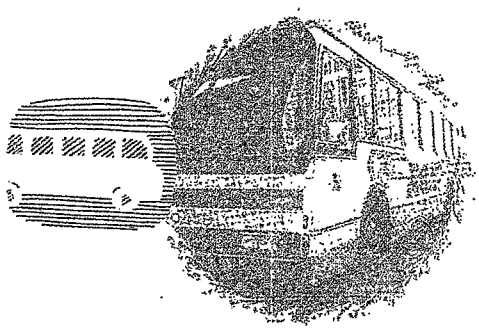
Office of Mobile Sources

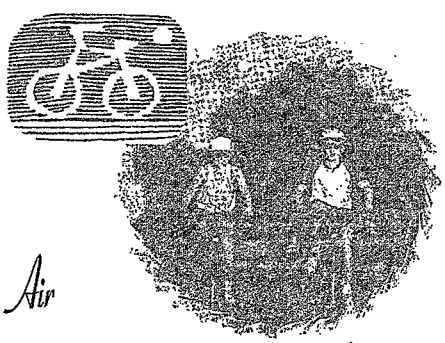
Creating Transportation Choices:

Congestion Mitigation and Air Quality Improvement Program

Success Stories







Getting There with Cleaner Air

EPA's Transportation Air Quality Center

www.epa.gov/oms/traq

Table of Contents

Introduction 3

Profile 1: Giving a Boost to Ridesharing with Financial Incentives
Advantage Rideshare Program: Riverside County, California 5

Profile 2: Encouraging Transit Use on High Ozone Days
Clean Air Action Program: Houston, Texas 7

Profile 3: Bridging the Gap between Daycare and Transit
Tamien Child Care Center: Santa Clara, California 9

Profile 4: Helping Businesses Connect Commuters toTransportation Alternatives
Commuter Connections Employer Outreach Program:
Washington DC Metro Area 11

Profile 5: The Catalyst for Innovative Suburban Transit Solutions
Ozaukee County Express Bus: Milwaukee, Wisconsin 13

Profile 6: Support for Carpooling Saves Transportation Infrastructure Costs and Improves Air Quality
Emory University Rideshare: Atlanta, Georgia 15

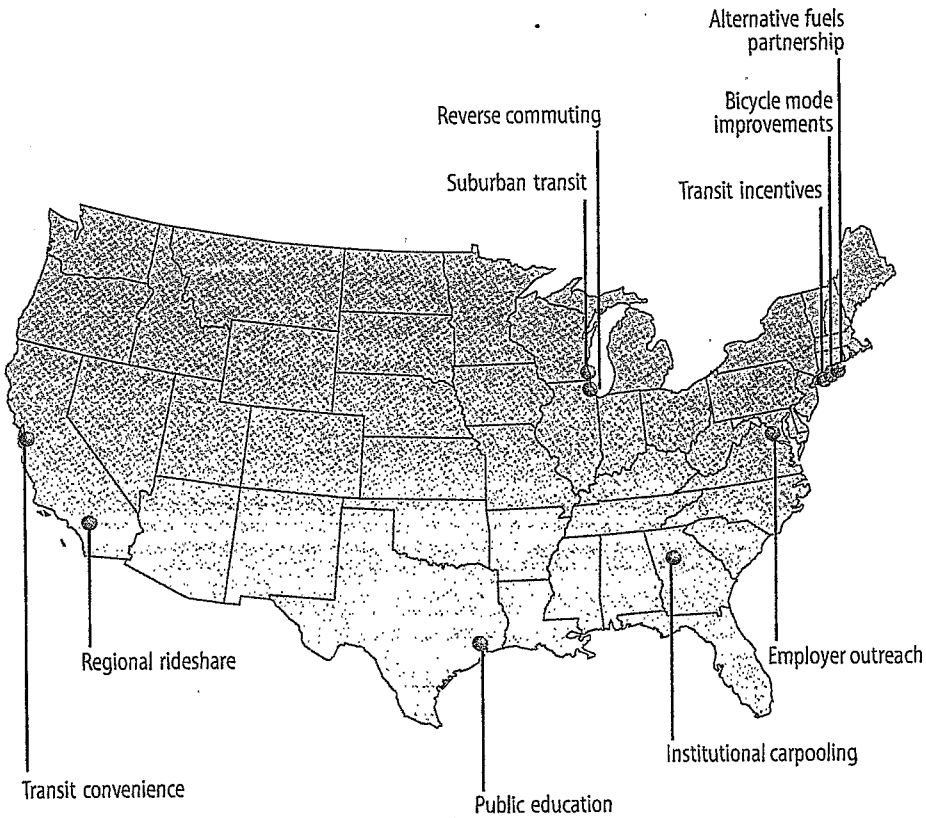
Profile 7: Cutting Employers' Payroll Costs and Expanding Commuter Choices
TransitChek®: New York, New York 17

Profile 8: A Public-Private Partnership for Clean Vehicle Technologies
Alternative Fuels Taxicab Program: New York, New York 19

Profile 9: Building a Comprehensive Approach to Bicycle Transportation
New York's City-wide Bicycle Network Development Project:
New York, New York 21

Profile 10: Connecting Commuter Rail to Suburban Employers
Shuttle Bug: Chicago, Illinois 23

Highlighted CMAQ Project Locations



Encouraging Alternatives to Drive-alone Travel: CMAQ Projects in the Spotlight

The Congestion Mitigation and Air Quality Improvement (CMAQ) program was created under the Intermodal Surface Transportation Efficiency Act of 1991 (ISTEA) to provide federal money for transportation projects that reduce criteria pollutant emissions in areas of the country that experience air quality problems. Funding for CMAQ totaled $6 billion over the six-year life of ISTEA, and will add $8.1 billion over the life of the Transportation Efficiency Act for the 21st Century (TEA-21); the successor Act to ISTEA.

Many of the projects funded by CMAQ help to make auto travel cleaner by elimating stop and go traffic conditions. From its beginning, however, the CMAQ program has also been a key building block for securing cleaner air by enhancing the nation's multimodal transportation system. This brochure, however, puts the spotlight on exemplary CMAQ projects that encourage alternatives to driving alone and technologies that make auto travel cleaner.

As the following projects show, across the nation, the diversity of ways in which CMAQ dollars help improve air quality and enhance mobility is impressive; ranging from funding for transit accessible day care to innovative financial tools that encourage use of alternative fuel vehicles. Some projects involve non-traditional partners like business or community groups, while others focus on improving the convenience of non-drive alone travel modes. Many of these projects are also opening up the planning process in order to share with and gain additional insights from a more diverse and non-traditional selection of interest groups.

The benefits of the CMAQ program, and particularly projects that promote alternatives to drive alone travel, extend beyond air quality improvements and congestion reduction. Many CMAQ projects help to support other transportation-related policies such as welfare to work, economic development, and community livability initiatives. For this reason, the true cost effectiveness of CMAQ projects (in terms of pollution control) is often difficult to estimate. Unless the allocation of costs to each of these objectives is taken into account, pollution control cost-effectiveness estimates will not be accurate. As a result, a cost effectiveness calculation has not been attempted in this publication.

This booklet examines a handful of projects that state and local CMAQ program officials from around the nation have identified as particularly innovative or successful. Many have been honored with awards or recognition in the media. They provide valuable ideas and lessons to consider for others responsible for proposing or implementing CMAQ projects.



Profile 1

Advantage Rideshare Program

Riverside County, California
Project Lead: Riverside County Transportation Commission

In Riverside County, California, a suburb of Los Angeles located about six miles north of the city, local officials have created Advantage Rideshare, an innovative financial incentive-based carpool program that helps address the area's traffic problems, caused in part by a regional imbalance of jobs and housing.

As home prices have grown in the region's employment hubs of Orange County and Los Angeles, many workers have opted to live further away in areas like Riverside County and the so-called 'Inland-Empire' is booming with residential development. In fact, one-third of Riverside County commuters travel to workplaces outside the county, causing traffic jams along State Route 91 (SR-91), which provides the only direct access to adjacent counties.

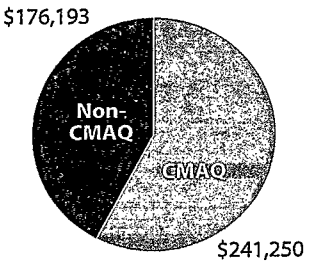
In 1989, Riverside County voters approved "Measure A," which increased the county's sales tax by ½ of 1 percent for 20 years to pay for congestion-related transportation improvements. Advantage Rideshare began in 1991, as part of the Measure A initiative and has been operated continuously since.

Advantage Rideshare is operated by the Riverside County Transportation Commission (RCTS). The program offers a financial incentive to motivate Riverside County residents who currently drive alone to and from work to use alternative modes of transportation. Since the program began, the annual budget for the program has been funded from a variety of sources, including CMAQ dollars. The budget covers marketing, administration and the cost of providing financial incentives.

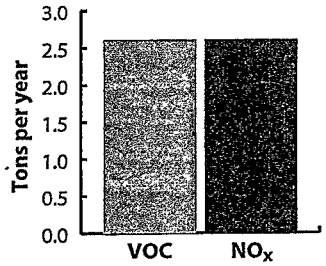
The centerpiece of the program is a subsidy to those who currently drive alone to work and switch to alternative modes. They are eligible for $2 in gift certificates – redeemable at a local shopping mall or grocery store - for each day they use another commute mode during their first three months in the program. After six months in the program, participants become eligible for a 'club ride' membership card good for merchant discounts at local area restaurants and business establishments. The Advantage Rideshare program is widely promoted at employers' worksites through customized flyers, rideshare fairs, and presentations to management teams or employees.

A comprehensive tracking study conducted by an independent consultant demonstrates the effectiveness of the program - approximately 79 percent of participants continue to rideshare after their first three months and since 1993 over 7,000 commuters have participated in the program. The Advantage Rideshare program was honored by EPA with a 'Way to Go' award in 1996.

Cost and Funding (total: $417,443)



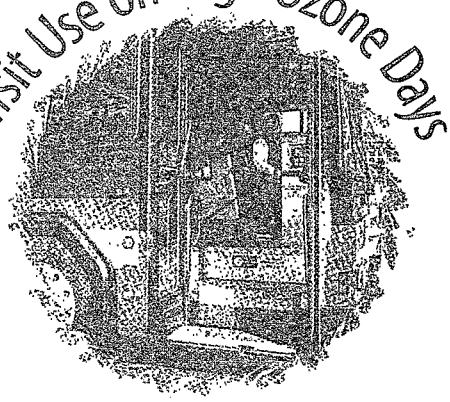
Estimated Emissions Reduction



Contact

Tanya Love, Program Manager
Riverside County Transportation Commission
Tel: 909-341-3576

Encouraging Transit Use on High Ozone Days



Profile 2

Houston Clean Air Action Program

Houston, Texas
Project Leads: Houston METRO and Houston-Galveston Area Council

The Clean Air Action Program is an innovative program in the Houston-Galveston Area that is designed to educate the public about the region's ozone problem and to encourage appropriate voluntary actions to reduce emissions from motor vehicles. One of the most successful elements of the Clean Air Action Program has been the "August is Clean Air Month" transit fare subsidy campaign.

Established by the Houston-Galveston Area Council (HGAC) to assist the eight county areas in attaining compliance with federal ozone standards, the Clean Air Action Program encourages the public to take steps to reduce emissions from motor vehicles through proper vehicle maintenance, vehicle trip reduction, and combining errands. Daily information on ozone watches and warnings is carried on the Clean Air Action web site, and messages promote ridesharing, vanpooling, and use of transit. CMAQ funds have been used to fund the program, and a voluntary public-private initiative composed of local governments, businesses, environmental and health organization, and interested citizens called the Clean Air Coalition works to promote the program.

In 1997, in a coordinated effort with the Metropolitan Transit Authority (METRO), all transit fares were subsidized by 50 percent during August, which typically has the highest number of ozone exceedence days. The program was an experimental CMAQ project and proved so successful that it was approved for a second year of funds.[1] Research showed a dramatic 26 percent increase in August 1997 fixed-route transit ridership compared to August 1996 figures. August 1998 fixed route ridership was up another 5 percent over the record August 1997

[1] CMAQ funding requirements allow transit-operating costs, such as wages and salaries, to be funded for up to three years.

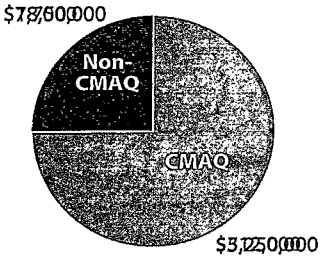
ridership — an increase of more than 390,000 boardings. In 1997, for the first time in METRO's history, fixed route ridership exceeded 8.5 million passenger boardings in a single month, topping this historic mark with a total of 8.654 million boardings in August 1998.

According to METRO's evaluation, introducing people to transit through the half-price program in combination with the ozone public education campaign has been successful at improving year-round ridership. Survey results from the 1998 event and retention rates from similar reduced fare promotions such as "Try METRO Week" indicate that at least half of new riders continue to ride METRO following a significant fare promotion. Trends in average number of passenger trips per weekday indicate that the months following the 1998 Clean Air Month half-fares also showed significant growth in transit ridership, reaching double digit or near double digit growth in most months.

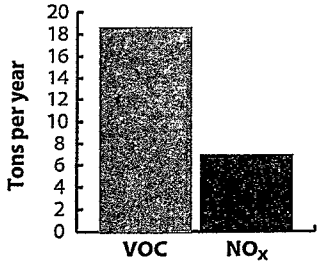
"We are very pleased with the results," said Alan C. Clark, Transportation MPO Director. "We were able to encourage a significant number of people to get out of their cars and get on a bus during a month when we historically have the greatest number of hazardous ozone exceedance days." The Houston-Galveston Area Council sees the program as a strategic element of its plan to attain the ozone standard by 2007 and has included the program in the Metropolitan Transportation Plan through the attainment year.

FHWA recognized the extensive evaluation effort in awarding the Houston-Galveston Area Council's Air Quality Program its 1999 Environmental Excellence Award for Environmental Research.

Cost and Funding (total: $7,000,000)



Estimated Emissions Reduction



Contact

Nancy Bentch, Program Manager
Houston-Galveston Area Council
Tel: 713-993-4582

Website

www.cleanairaction.org/

Bridging the Gap between Daycare and Transit



Profile 3
Tamien Child Care Center

Santa Clara, California
Project Lead: Santa Clara Valley Transportation Authority

Using transit to commute is often difficult for working parents who must stop by day care and take care of errands on their way to and from work. So when Caltrain decided to build a major new transit-hub to serve the commuter rail line to San Jose and San Francisco, and the Santa Clara Valley Transportation Authority (VTA) bus and light rail system, Santa Clara County Supervisor Zoe Lofgren sought to include an onsite child day care center as part of the project. Positive results from a market feasibility study by the County helped build the case for funding this first of a kind facility, which provides a unique bundling of day care services and access to transit. Since opening in late 1995, the center has received local and national recognition (see sidebar), and VTA reports that it receives at least one call a month from other areas interested in learning more about how to implement similar projects.

Tamien Childcare Center Awards:

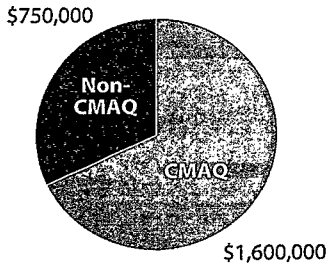
In May 1999, the NAEYC accredited the Center. (Only 5% of child care centers nationwide possess this accreditation.) In April 1996, it was awarded the "Outstanding Provider Award" by the City of San Jose. Also in 1996, VTA received a proclamation from the San Jose City Council as an "Outstanding Contributor to Child Care".

As an experimental pilot, CMAQ funds were used for construction of the Tamien Child Care Center. It is operated by Bright Horizons Family Solutions, a nationally known child care provider, under contract to VTA. The facilities are provided by VTA on a no cost lease basis to Bright Horizons, who in turn covers the entire cost of operating the center through enrollment fees.

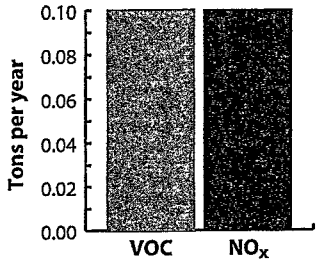
To encourage commuters with young children to use public transit, a comprehensive Transit Incentive Program was established at the Center. The program provides a 50 percent discount on monthly transit passes for the first three months that a family uses the Center; as well as priority enrollment and discounted fees; and waiver of late fees if lateness in picking up child is due to transit service delays. The Center also offers free morning coffee for parents, family evening meals to go, drop-off dry cleaning service and shoe repair, on-site children's hair cuts, on-site sale of transit passes, and on-site family social events. The co-location of transit, quality day care, and convenient services made transit a more attractive commuting option.

A progress survey conducted on the Center's one-year anniversary shows that it has helped improve mobility and has shifted commute mode share away from single occupant vehicles among both families using the Center and the daycare staff. Among the parents of children, commute mode split for transit increased from 11 percent to 17 percent (a 54 percent increase in transit share) and among staff, transit mode split increased from 11 percent to 30 percent (a 190 percent increase in transit share). Drive alone auto mode share dropped from 83 percent to 77 percent for parents and from 80 percent to 70 percent for staff. In addition, the survey shows that users of the facility are very satisfied, with 100 percent of the parents rating services at the center as "good" or "excellent." As one parent responded, "the Center is fantastic!"

Cost and Funding (total: $2,350,000)

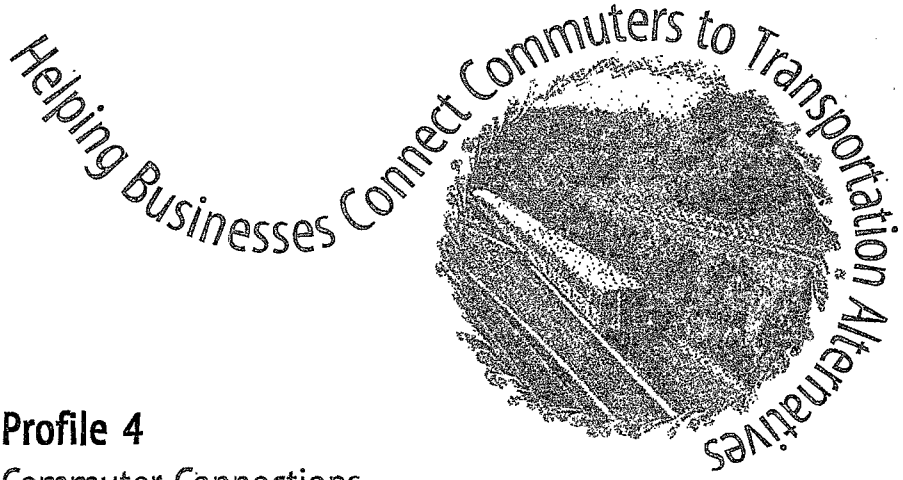


Estimated Emissions Reduction



Contact

Julie Render, Principal Transportation Planner
Santa Clara Valley Transportation Authority
Tel: 408-321-5744



Profile 4

Commuter Connections Employer Outreach Program

Washington DC Metro Area
Project Lead: Metropolitan Washington Council of Governments

The Washington DC region's Commuter Connections program was developed in response to Clean Air Act Amendments legislation that required areas with poor air quality to reduce drive alone commuter travel. With the help of CMAQ funds, the program now includes a dedicated "employer outreach" sales force that promotes Transportation Demand Management (TDM) strategies directly to employers in the region.[2] Virginia, Maryland and the District of Columbia jointly help to support the program.

Employers can access Commuter Connections services simply by dialing an easy-to-remember 800 number (745-RIDE). Outreach staff, also market Commuter Connections to employers and are available to conduct on-site business information and assistance sessions on a variety of topics including the following:

- Tax-free commute benefits (such as transit subsidies and discounted carpool/vanpool parking)
- Guaranteed ride home and ride matching services
- Employee commute habit surveys
- Transit
- Telework programs
- Training for on-site transportation manager
- Bicycle commuting

[2] CMAQ funding requirements allow transit-operating costs, such as wages and salaries, to be funded for up to three years.

In 1997, which was its first year of operation, Commuter Connections outreach staff mailed out almost 3,600 packets of information, participated in over 100 on-site meetings with employers, and conducted 58 surveys aimed at employers. As a result of these efforts, 15 employers established new transit benefit programs, 12 commuter information displays were installed at employer work sites, and 43 on-site commuter information fairs were held.

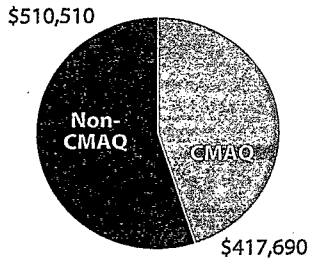
Success Stories

1. When George Mason University's Arlington campus lost its only on-site parking lot in January of 1996 it hired a full-time parking information coordinator and established parking assistance resource center, which stocked information on alternative modes. To encourage use of alternative transportation, the campus provides discounted fare media and bicycle racks.

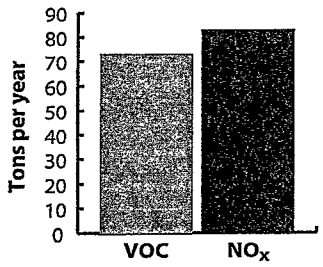
2. The Calvert Group, an investment company located in Bethesda, Maryland, has subsidized both public transportation and parking since 1987. The company recently instituted a cap on the reimbursement of parking costs while continuing transit subsidies. As a result about 25 percent of all employees now commute via public transportation. In 1993, the company started subsidizing those employees who walked or biked to work by paying for walking shoes or a bicycle.

Annually, the Commuter Connections program provides recognition awards for companies that have developed outstanding commuting programs. In 1998, the winners included George Mason University and the Calvert Group (see sidebar).

Cost and Funding (total: $928,200)



Estimated Emissions Reduction

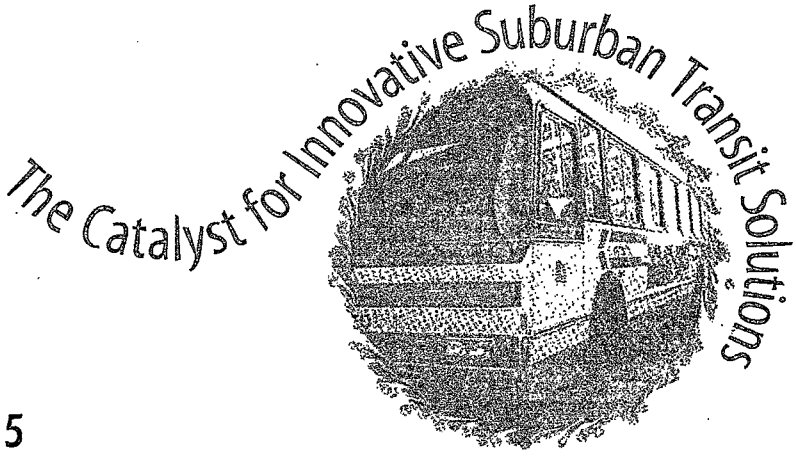


Contact

Nicholas Ramfos, Program Manager
Commuter Connections Program, MWCOG
Tel: 202-962-3313

Website

www.mwcog.org/commuter/ccindex.html



Profile 5

Ozaukee County Express Bus

Milwaukee, Wisconsin
Project Lead: Ozaukee County, Wisconsin

Connecting people to jobs, improving mobility, and improving air quality are all outcomes of the nationally recognized Ozaukee Express bus service. The project was founded as an innovative partnership between employers and state and local government and it uses a mix of private and public funds to pay for new local transit service.

The Ozaukee Express targets "reverse commuters," a population that is not easily served by traditional bus systems. In the Milwaukee metro region, as in other metropolitan areas, demand for labor is growing in suburban areas like Ozaukee County, while unemployment remains higher in the urban core. By providing convenient transit service, dependence on autos for mobility can be reduced in areas where a car is usually the only option for travel.

The Ozaukee Express service operates between several boarding points on Milwaukee's near south side and Park-and-Ride lots in suburban Ozaukee County to the north. Shuttle vans meet express buses at the lots to take passengers to employment sites in six communities in Ozaukee County. Since beginning service three years ago, the Express Bus has grown from its initial six to twelve round trips per day. Average daily ridership now stands at 372 trips per day, which dramatically exceeds the initial prediction of 19 trips per day. About 70 percent of the riders travel from Milwaukee to jobs in Ozaukee County, the remaining 30 percent travel to jobs or school in downtown Milwaukee.

A recent customer satisfaction survey reveals riders use the Express bus for a wide variety of reasons. One rider describes how the bus "eliminates the hassle of

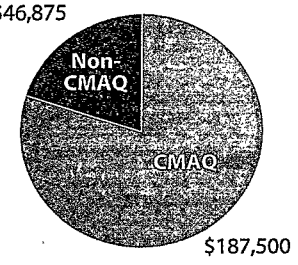
driving in heavy traffic," while another points out "its economical, very convenient... and it's good for the environment."

The Ozaukee County Economic Development Corporation and its employer-led Ozaukee County Transportation Management Association was responsible for establishing the project, and keeping it on track. Funding for operation of the service comes from a mix of federal transit operating assistance, passenger fare revenues, CMAQ, and local employers.[3] In 1998, employers paid 70 percent of the local share, with the county paying 30 percent. Having built a solid ridership base over the last three years, management of the Ozaukee Express was recently turned over to the County, which will continue to operate the program.

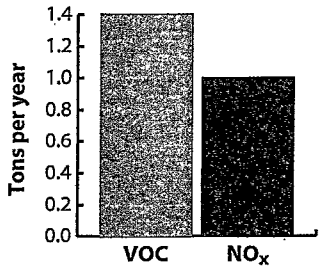
According to the project' s proponents, the success of the Ozaukee Express is attributable to support from a diverse mix of public and private participants, whose wide range of agendas include economic development, environmental quality, and welfare to work.

[3] CMAQ funding requirements allow transit-operating costs, such as wages and salaries, to be funded for up to three years.

Cost and Funding (total: $234,375)

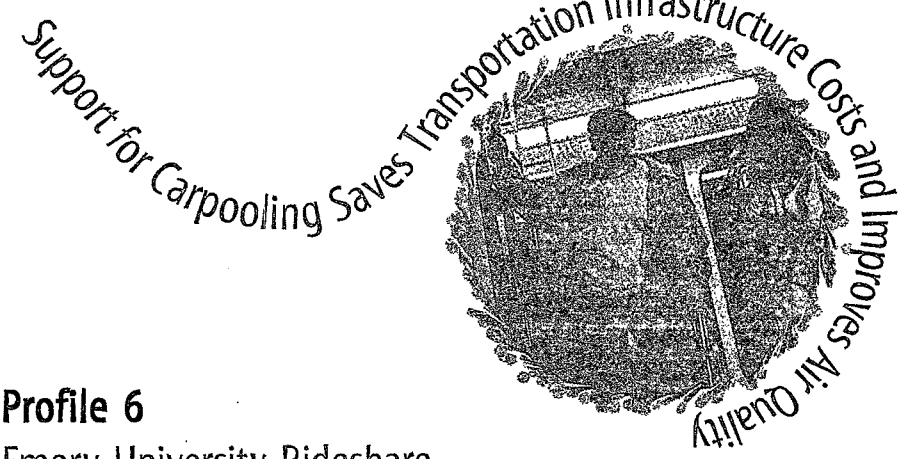


Estimated Emissions Reduction



Contact

Sharon Gilman, Director of Transit Services
Ozaukee County Government
Tel: 414-284 8194



Profile 6
Emory University Rideshare

Atlanta, Georgia
Project Lead: Emory University

Located approximately seven miles east of downtown Atlanta, Emory University suffers some of the region's worst traffic congestion, according to an Atlanta Regional Commission (ARC) Study. Members of the Emory University community, however, are working together to offer a broad range of commuting options to meet the university's parking challenges and to help address the Atlanta region's traffic and air quality problems.

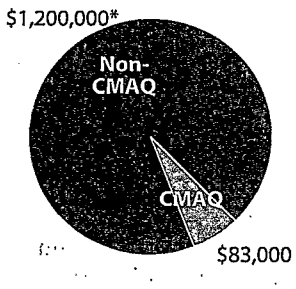
Emory University's Department of Community Services has planned and developed a comprehensive transportation management plan that includes financial incentives for University employees who choose alternative modes of transportation, such as carpools, vanpools, and rapid transit for commuting. Funding for this project comes from a CMAQ grant that is administered by ARC and is intended to encourage transportation demand management strategies at Emory and several other university campuses in the Atlanta region too.

The University Rideshare program is designed to relieve traffic congestion and parking demand on campus through ride-matching services, financial incentives, and information. Two-person carpools are eligible for parking at a cost of $100 a year, which is less than half the cost of most Emory University parking assignments. Car and vanpools of three persons or more are eligible for a $38 per month subsidy and free parking, which is at least a $700 value. In case vanpool or carpool riders need to drive their own car to work, Community Services issues one parking pass per month; additional passes are available at a discounted rate. In addition to the carpooling program, Emory also provides monthly discounted transit farecards to over one thousand University employees, and to facilitate travel around the large campus for those without access to a vehicle, a campus shuttle-service has been initiated.

Approximately 400 university employees are now carpooling to work, and the success of the transit pass and carpooling programs has allowed the University to forgo construction of an expensive new parking facility.

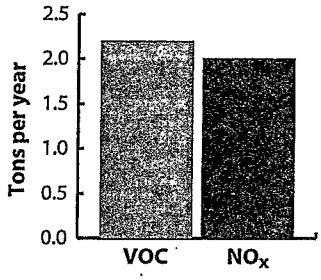
Regional planning agencies and business have taken note of the program's success. "The Atlanta Regional Commission (ARC) has held Emory's alternate transportation up as a model," says Cheryl Crumley, Director of Emory's Rideshare program. "When ARC began its Commute Connections Program, they wanted to get other businesses to do what Emory's doing in the alternate transportation arena." Bill Minter, director of the region's 'Commute Connections' program sees the Emory program as "essential because they address behavioral changes."

Cost and Funding (total: $1,283,000)



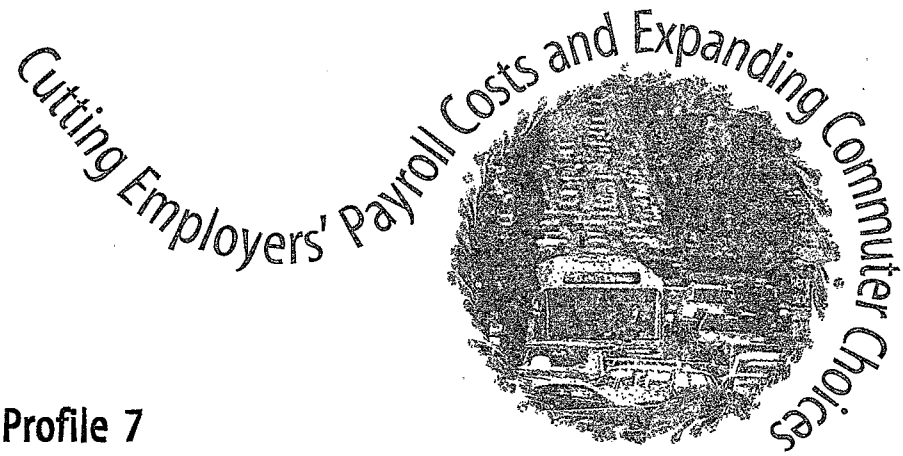
* This figure includes MARTA passes, parking subsidy and shuttle bus service; cost of administering program estimated at approximately $250,000/year

Estimated Emissions Reduction



Contact

Cheryl J. Crumley, Director
Department of Community Services
Emory University
Tel: 404-727-7638



Profile 7
TransitChek®

New York, New York
Project Lead: TransitCenter

The New York metro region has one of the most extensive public transit systems in the world. And all over the New York-New Jersey-Connecticut tri-state area, more and more companies are using TransitCenter's TransitChek® to help employees get to work by transit for less money and save on company taxes.

TransitCenter was started in 1986. As an innovative public-private alliance between the region's businesses and transit operators, it's mission is to encourage greater use of public and private transit services in order to improve mobility, reduce traffic congestion and air pollution, and support the region's economy. Founding partners include the Metropolitan Transportation Authority (MTA), New Jersey Transit Corporation, PATH (an operating subsidiary of the Port Authority of New York and New Jersey), and the New York City Partnership and Chamber of Commerce.

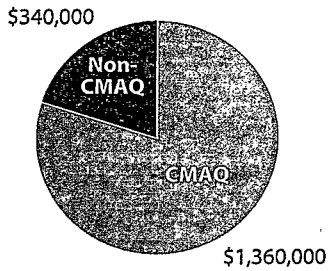
TransitChek is one of TransitCenter's most successful programs. It provides a convenient and economical way for employers to offer transit benefits to their employees. Before the advent of TransitChek, employers offering transit passes to their staff had to purchase passes, tickets, or tokens separately from each transit agency in the region. Now, employers purchase TransitChek vouchers from TransitCenter and distribute them to their employees, who can exchange them for transit passes at more than 60 transit operators and vanpool services. Since TransitChek vouchers are paid for on a pre-tax basis, employees receive substantial tax savings, typically over $200 per year, while employers save on payroll taxes.

CMAQ funding has allowed TransitCenter to hire eight sales staff to market TransitChek and assist companies in using the program.[4] With the grant, TransitCenter has been able to expand marketing activities to the entire New York ozone nonattainment area, opening sales offices in various parts of the region, and extending its marketing activities beyond its initial New York City base.

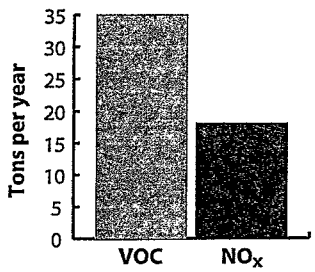
As a result of these CMAQ funded efforts, TransitCenter was able to substantially increase awareness of TransitChek, to increase the number of companies providing the tax incentive to their employees, to increase transit ridership, and to reduce auto use. Between 1993 and 1995, TransitChek sales increased by 78 percent. In 1996, sales increased to $42.5 million, or a 39% increase over 1995. This trend has continued through 1998. The number of companies participating in TransitChek is also increasing. Currently, close to 10,000 organizations are participating including Colgate-Palmolive Company, Fidelity Investments and the Securities & Exchange Commission.

[4] CMAQ funding requirements allow transit-operating costs, such as wages and salaries, to be funded for up to three years.

Cost and Funding (total: $1,700,000)



Estimated Emissions Reduction



Contact

Larry Filler, President and CEO
TransitCenter
Tel: 212-329-2000

Website

www.transitcenter.com



Profile 8
New York Alternative Fuels Taxicab Program

New York, New York
Project Leads: New York State Energy Research and Development Authority, New York City Department of Transportation

New York City is known for its taxis, which are privately operated but which provide a great deal of the city's public transportation. Over 12,000 taxis travel the streets of New York City every day, and taxis account for over 10 percent of all vehicle miles traveled.

The New York City Alternative Fuels Taxicab program is an innovative program that encourages taxicab owners to convert their vehicles to run on compressed natural gas (CNG) or to purchase a dedicated CNG vehicle. The original idea for the project began with City government. The City partnered with the New York State Energy Research and Development Authority (NYSERDA) for technical assistance and eventually asked the state authority to run the program. The program also includes a number of private partners, including a major auto manufacturer, regional energy providers, private taxi owners and drivers, the New York City Taxi and Limousine Commission, and private system installers.

Under the program, a taxicab owner can bring a conventional taxicab to a certified conversion shop, which will install equipment to convert a conventional vehicle to a bi-fuel vehicle. The conversion shop is then reimbursed for the cost of the conversion, and there is no cost to the cab owner. Taxi owners must sign a statement assuring that they will operate the vehicle on natural gas for the life of the vehicle. Alternatively, the taxicab owner can purchase a dedicated CNG vehicle and are then reimbursed for the incremental cost of approximately $6,000 per vehicle, so that the purchase price for the CNG vehicle is about the same price as a

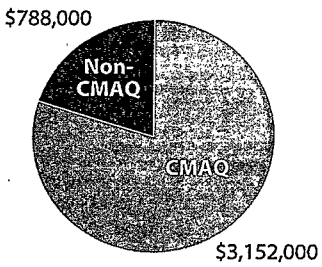
comparable gasoline cab. The cab operator also benefits from reduced costs since CNG is cheaper than gasoline.

The program was established with CMAQ funds. About three-quarters of CMAQ funds go directly toward the vehicle subsidy. The remainder of funds have been set aside for the development of refueling stations; monitoring and testing vehicles; and program planning, management, and reporting. Early project implementation issues regarding fuel availability have been resolved by providing larger fuel tanks; and despite concerns about loss of trunk space, these measures have not hindered the overall progress of the program.

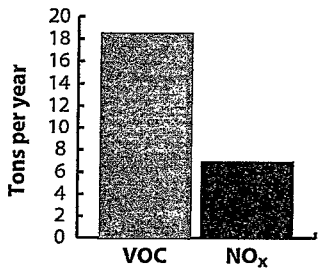
The program is a partnership between the public and private sectors, and its example has been an impetus to broaden the eligibility of CMAQ funds for other types of innovative public-private partnerships. CMAQ funds pay for about 80 percent of the incremental cost of a new CNG vehicle or conversion, with the remaining 20 percent coming from program partners. For example, Keyspan Energy, a private company, provides the 20 percent match for converted vehicles that will fuel at their CNG station sites. As a result of the program, a taxi fleet of 300 CNG vehicles is in operation. Of these, 165 are bi-fuel conversions and 135 are dedicated fuel vehicles.

The program is a catalyst for expanding the market for clean vehicle technologies to light-duty vehicles. The program was awarded a certificate of environmental achievement by Renew America and received a 1998 National Clean Cities Partner award.

Cost and Funding (total: $3,940,000)



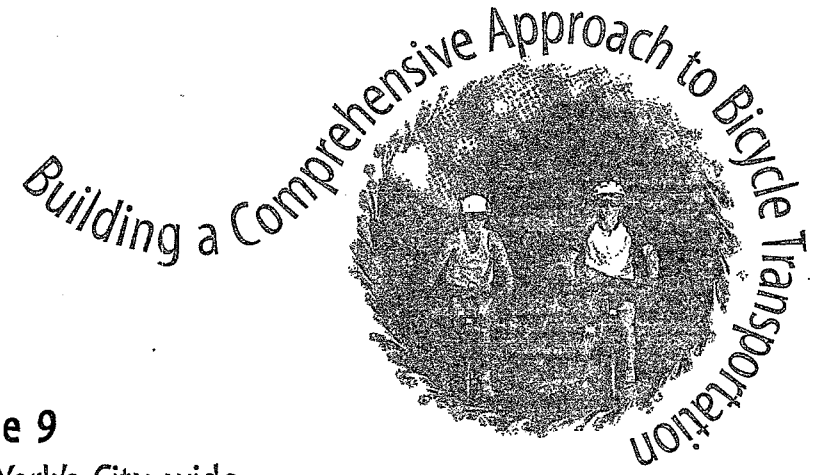
Estimated Emissions Reduction



Contact

Mark Simon
New York City Department of Transportation
(212) 442-0543

Jed Appelbaum
New York City Taxi and Limousine Commission
(718) 267-4599



Profile 9

New York's City-wide Bicycle Network Development Project

New York, New York
Project Leads: New York City Department of Transportation, New York City Department of City Planning

New York City's Bicycle Network Development (BND) project is recognized as one of the nation's most ambitious non-motorized transportation planning initiatives, and it is laying the foundation for a 900-mile city-wide bike network. Begun in 1994, the centerpiece of this joint effort between the New York City Department of City Planning and Department of Transportation is the Bicycle Master Plan. The Master Plan was developed in close coordination with key constituencies including advocacy organizations, community boards, elected officials, and the bicycling community. CMAQ funds are being used to assist in the implementation of the Master Plan.

A Technical Advisory Committee (TAC) composed of representatives of City agencies, the Boroughs, state and local transportation agencies, bicycle advocacy groups, and citizens facilitated public involvement in the development of the Master Plan. In addition, presentations on the draft network were made to the Borough Boards, and as the designs for specific routes advanced, affected communities were also brought into the design process.

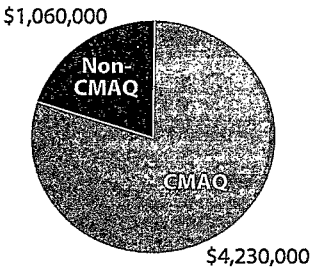
The Bicycle Master Plan focuses on four key themes for promoting bicycling: encouragement, engineering, enforcement, and education. It includes development of promotional literature and events (encouragement), development and maintenance of bicycle facilities in all five of New York's boroughs (engineering), enhancement of bicycle safety and respect for cyclists (education), and prevention of bicycle theft and policing of traffic (enforcement).

The Master Plan identifies priority on-street routes and off-street facilities, with a specific focus on river bridge crossings, access to transit, and bicycle parking. Selection of priority routes was based on ease of connection to an existing system, potential for high volume use, geographic balance, and reasonable implementation cost. Much of the 900-mile network identified in the plan can be implemented through routine rehabilitation of the city's infrastructure.

The development of a comprehensive network for non-motorized transportation options is expected to increase bicycling activity significantly and reduce emissions by diverting some people from using motor vehicles. It is also seen as a benefit to the region's quality of life. At the time of the Bicycle Master Plan's development, there were approximately 119 miles of bicycle facilities in New York City. Within a little over a year of the Plan's release, the total mileage of on-street bike lanes had increased by 85 percent. Bicycle facilities are expected to support not only bicycling but also in-line skating, which the plan recognizes as an increasingly popular form of transportation and recreation.

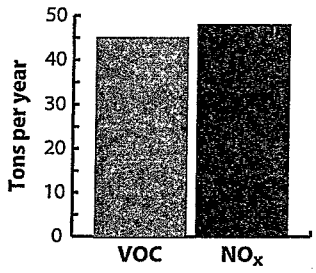
Counts of bicyclists in Manhattan show a 15 to 20 percent increase in bicycling activity since the program's inception. The project was awarded the 1999 Environmental Excellence Award for Non-Motorized Transportation by Federal Highway Administration. Phase II of the BND, now underway, will ensure that needed capital investments take place and that better ways to track bicycle use are developed.

Cost and Funding (total: $5,290,000)



Note: About $60 million has been authorized for implementing various aspects of the bicycle plan, including development of new bike routes and greenways.

Estimated Emissions Reduction

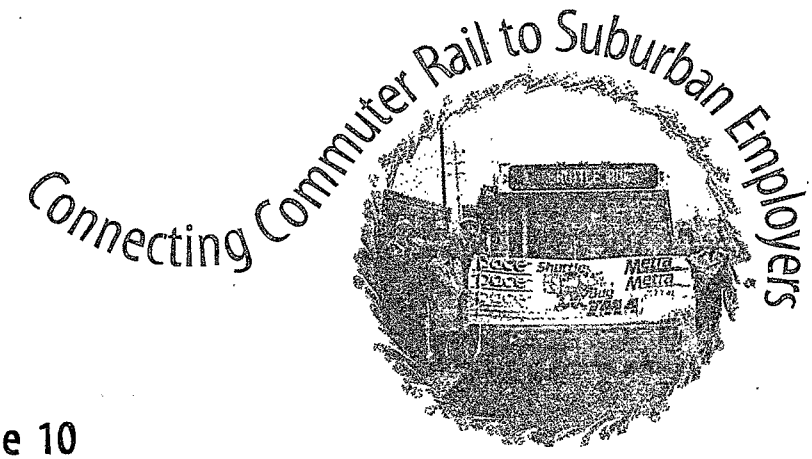


Contact

John Benfatti, Bicycle Planner
New York City Department of Transportation
Tel: 212-442-9890

Website

www.ci.nyc.ny.us/html/dcp/html/bikenet.html



Profile 10
Lake Cook Shuttle Bug

Chicago, Illinois
Project Lead: Transportation Management Association of Lake-Cook

The Shuttle Bug was started in 1996 as a CMAQ "demonstration" project that used shuttle buses to connect commuter rail riders with suburban employers. Now in its third year of funding, the project has proven to be a success, with increases in daily ridership necessitating a shift from 15-seat to 26-seat buses and new routes planned.

Metra, the Chicago region's rail service, has nearly 1.5 million boardings per week. Most of Metra's riders travel to downtown destinations. For those who work in Chicago's fast growing suburbs like the Lake Cook Road area however, campus style office and industrial parks often require automobile transportation, even in areas served by rail transit. And as travel grows, traffic corridors such as Lake Cook Road are clogging up quickly.

Growing traffic problems have led several employers in the area to form the Transportation Management Association (TMA) of Lake Cook. The TMA's support for innovative solutions to congestion provided the catalyst for establishing a free shuttle that connects a new local Metra station to major employers nearby, like Underwriters Laboratories, Walgreens, and Morgan Stanley Dean Witter. In fact, employer contributions help to make up the local match for the CMAQ grant used to meet the cost of operating shuttles. The Shuttle Bug also receives support from Metra.

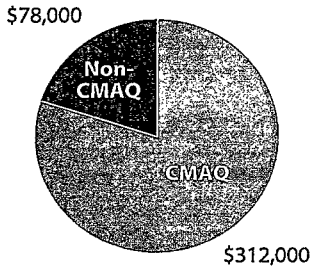
The Shuttle Bug is operated by Pace, Chicago's suburban bus service, and CMAQ funds are used to help cover the cost of operations[5]. The Shuttle Bug serves six

[5] CMAQ funding requirements place a limit of 3 years on use of funds for transit operating expenditures.

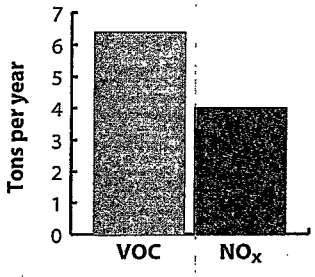
routes, and a seventh route is planned. The buses offer high frequency, door-to-door service to about half of the 25,000 employees in the area. Target riders include those who commute out of Chicago to jobs in the suburbs, but significant ridership also comes from suburban residents. The air quality benefits of the Shuttle Bug get a boost because many riders have commutes of more than 15 miles one way. Even more importantly, surveys show that 60 percent of those who take the shuttle previously drove to work alone. Ridership now stands at about 550 trips per day.

The Shuttle Bug provides a range of benefits. Employers benefit because it helps to attract employees; commuters face a less stressful work trip; and, by adding fare paying passengers on the return leg of train journeys to downtown, Metra is able to make its service more cost-effective. The success of the project has prompted additional daily reverse commute train service and plans for similar shuttles at other stations.

Cost and Funding (total: $390,000)



Estimated Emissions Reduction



Contact

Bill Baltutis, Executive Director
TMA of Lake-Cook
Tel: 847-948-4023



United States
Environmental Protection Agency
Office of Mobile Sources
2000 Traverwood Dr.
Ann Arbor, MI 48105

Printed on
recycled paper
containing at
least 20% post
consumer fibers

For more information on EPA's Transportation Air Quality Center (TRAQ) contact:

Joann Jackson-Stephens
Tel: (734) 214-4276
www.epa.gov/omswww/traq